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FINAL BASEWIDE BACKGROUND STUDY VOLUME 2 PART 2 APPENDICES A THROUGH G NAS FORT WORTH TX
1/1/1998
JACOBS ENGINEERING

File: 17G
A.F.

410 617A

NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 410

410 617

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

NICKEL BY GFAA

SDG#: 96L032

JANUARY 09, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L032

NICKEL BY GFAA

Seventeen (17) water samples were received on 12/10/96 to be analyzed for Nickel by GFAA method 7520 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blank was free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   MS recoveries were within QC limits.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

12/31/1996 10:57

LAB CHRONICLE
Nickel

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L032
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160103	L032-03	NA	GFL007/12/14/96/09:00	Q03L026/12/20/96/20:37	G06L026-39/44	
CR-A160104	L032-04	NA		:41		45
CR-A160107	L032-07	NA		:46		46
CR-A160108	L032-08	NA		:50		47
CR-A160403	L032-11	NA		:54		48
CR-A160404	L032-12	NA		:58		49
CR-A160503	L032-15	NA		21:03		50
CR-A160504	L032-16	NA		:15	G06L026-[illegible]	
CR-A160507	L032-19	NA		:19		[illegible]
CR-A160603	L032-23	NA		20:07	G06L026-27/[illegible]	
CR-A160603MS	L032-23M	NA		:29	G06L026-39/42	
CR-A160603DUP	L032-23D	NA		:33		43
CR-A160604	L032-24	NA		21:23	G06L026-5[illegible]	
CR-A160903	L032-27	NA		:28		56
CR-A160904	L032-28	NA		:32		57
CR-A160907	L032-31	NA		:36		58
CR-A161003	L032-34	NA		21:40		59
CR-A161004	L032-35	NA		:44		60
CR-A161007	L032-38	NA		:48		61
MBLK1W	GFL007	WB		19:54	G06L026-27/37	
LCS1		WL		:59		71
LCD1		WC		20:03		

* See sequence run file

EPA 3020A/7520
NICKEL BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L032
Matrix : WATER

Date Collcted : 12/08/96
DaTime Received: 12/10/96
Instrument ID : EMAXTI03

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160103	L032-03	.00304F	1	NA	.01	.002	12/20/9620:37	12/14/9609:00	G03L026038	G03L026033	GFL007W
CR-A160104	L032-04	ND	1	NA	.01	.002	12/20/9620:41	12/14/9609:00	G03L026039	G03L026033	GFL007W
CR-A160107	L032-07	.00306F	1	NA	.01	.002	12/20/9620:46	12/14/9609:00	G03L026040	G03L026033	GFL007W
CR-A160108	L032-08	ND	1	NA	.01	.002	12/20/9620:50	12/14/9609:00	G03L026041	G03L026033	GFL007W
CR-A160403*	L032-11	.00869F	1	NA	.01	.002	12/20/9620:54	12/14/9609:00	G03L026042	G03L026033	GFL007W
CR-A160404*	L032-12	ND	1	NA	.01	.002	12/20/9620:58	12/14/9609:00	G03L026043	G03L026033	GFL007W
CR-A160503*	L032-15	.014	1	NA	.01	.002	12/20/9621:03	12/14/9609:00	G03L026044	G03L026033	GFL007W
CR-A160504*	L032-16	.00296F	1	NA	.01	.002	12/20/9621:15	12/14/9609:00	G03L026047	G03L026045	GFL007W
CR-A160507*	L032-19	ND	1	NA	.01	.002	12/20/9621:19	12/14/9609:00	G03L026048	G03L026045	GFL007W
CR-A160603	L032-23	.00989F	1	NA	.01	.002	12/20/9620:07	12/14/9609:00	G03L026031	G03L026021	GFL007W
CR-A160603MS	L032-23M	.0165	1	NA	.01	.002	12/20/9620:29	12/14/9609:00	G03L026036	G03L026033	GFL007W
CR-A160603MSD	L032-23S	.0154	1	NA	.01	.002	12/20/9620:33	12/14/9609:00	G03L026037	G03L026033	GFL007W
CR-A160604	L032-24	.00394F	1	NA	.01	.002	12/20/9621:23	12/14/9609:00	G03L026049	G03L026045	GFL007W
CR-A160903**	L032-27	.0203	1	NA	.01	.002	12/20/9621:28	12/14/9609:00	G03L026050	G03L026045	GFL007W
CR-A160904**	L032-28	ND	1	NA	.01	.002	12/20/9621:32	12/14/9609:00	G03L026051	G03L026045	GFL007W
CR-A160907**	L032-31	ND	1	NA	.01	.002	12/20/9621:36	12/14/9609:00	G03L026052	G03L026045	GFL007W
CR-A161003**	L032-34	.0044F	1	NA	.01	.002	12/20/9621:40	12/14/9609:00	G03L026053	G03L026045	GFL007W
CR-A161004**	L032-35	ND	1	NA	.01	.002	12/20/9621:44	12/14/9609:00	G03L026054	G03L026045	GFL007W
CR-A161007	L032-38	ND	1	NA	.01	.002	12/20/9621:48	12/14/9609:00	G03L026055	G03L026045	GFL007W
MBLK1W	GFL007WB	ND	1	NA	.01	.002	12/20/9619:54	12/14/9609:00	G03L026028	G03L026021	GFL007W
LCS1W	GFL007WL	.0115	1	NA	.01	.002	12/20/9619:59	12/14/9609:00	G03L026029	G03L026021	GFL007W
LCD1W	GFL007WC	.0103	1	NA	.01	.002	12/20/9620:03	12/14/9609:00	G03L026030	G03L026021	GFL007W

PQL: Practical Quantitation Limit
* DATE COLLECTED : 12/09/96
** DATE COLLECTED : 12/07/96

410 621

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

SELENIUM BY GFAA

SDG#: 96L032

JANUARY 09, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L032

SELENIUM BY GFAA

Seventeen (17) water samples were received on 12/10/96 to be analyzed for Selenium by GFAA method 7740 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blank was free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   MS recoveries were within QC limits.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 3020A/7740
SELENIUM BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L032
Matrix : WATER

Date Collcted : 12/08/96
DaTime Received: 12/10/96
Instrument ID : EMAXTI03

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160103	L032-03	.0042F	1	NA	.005	.0011	12/18/9619:46	12/14/9609:00	G03L023020	G03L023010	GFL007W
CR-A160104	L032-04	.0046F	1	NA	.005	.0011	12/18/9619:49	12/14/9609:00	G03L023021	G03L023010	GFL007W
CR-A160107	L032-07	.0041F	1	NA	.005	.0011	12/18/9620:01	12/14/9609:00	G03L023024	G03L023022	GFL007W
CR-A160108	L032-08	.0049F	1	NA	.005	.0011	12/18/9620:05	12/14/9609:00	G03L023025	G03L023022	GFL007W
CR-A160403*	L032-11	.0017F	1	NA	.005	.0011	12/18/9620:12	12/14/9609:00	G03L023027	G03L023022	GFL007W
CR-A160404*	L032-12	ND	1	NA	.005	.0011	12/18/9620:08	12/14/9609:00	G03L023026	G03L023022	GFL007W
CR-A160503*	L032-15	.0012F	1	NA	.005	.0011	12/18/9620:16	12/14/9609:00	G03L023028	G03L023022	GFL007W
CR-A160504*	L032-16	.002F	1	NA	.005	.0011	12/18/9620:20	12/14/9609:00	G03L023029	G03L023022	GFL007W
CR-A160507*	L032-19	.0013F	1	NA	.005	.0011	12/18/9620:24	12/14/9609:00	G03L023030	G03L023022	GFL007W
CR-A160603	L032-23	.0017F	1	NA	.005	.0011	12/18/9619:27	12/14/9609:00	G03L023015	G03L023010	GFL007W
CR-A160603MS	L032-23M	.0175	1	NA	.005	.0011	12/18/9619:38	12/14/9609:00	G03L023018	G03L023010	GFL007W
CR-A160603MSD	L032-23S	.017	1	NA	.005	.0011	12/18/9619:42	12/14/9609:00	G03L023019	G03L023010	GFL007W
CR-A160604	L032-24	.0018F	1	NA	.005	.0011	12/18/9620:27	12/14/9609:00	G03L023031	G03L023022	GFL007W
CR-A160903**	L032-27	.0024F	1	NA	.005	.0011	12/18/9620:31	12/14/9609:00	G03L023032	G03L023022	GFL007W
CR-A160904**	L032-28	.0025F	1	NA	.005	.0011	12/18/9620:35	12/14/9609:00	G03L023033	G03L023022	GFL007W
CR-A160907**	L032-31	ND	1	NA	.005	.0011	12/18/9620:47	12/14/9609:00	G03L023036	G03L023034	GFL007W
CR-A161003**	L032-34	.0019F	1	NA	.005	.0011	12/18/9620:51	12/14/9609:00	G03L023037	G03L023034	GFL007W
CR-A161004**	L032-35	.0028F	1	NA	.005	.0011	12/18/9620:55	12/14/9609:00	G03L023038	G03L023034	GFL007W
CR-A161007	L032-38	.0018F	1	NA	.005	.0011	12/18/9620:59	12/14/9609:00	G03L023039	G03L023034	GFL007W
MBLK1W	GFL007WB	.0014F	1	NA	.005	.0011	12/18/9619:16	12/14/9609:00	G03L023012	G03L023010	GFL007W
LCS1W	GFL007WL	.0207	1	NA	.005	.0011	12/18/9619:20	12/14/9609:00	G03L023013	G03L023010	GFL007W
LCD1W	GFL007WC	.0179	1	NA	.005	.0011	12/18/9619:24	12/14/9609:00	G03L023014	G03L023010	GFL007W

PQL: Practical Quantitation Limit
AFCEE Ver. 1.1
* DATE COLLECTED : 12/09/96
** DATE COLLECTED : 12/07/96

410 624

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

SILVER BY GFAA

SDG#: 96L032

JANUARY 09, 1997

12/31/1996 10:57

LAB CHRONICLE
Silver

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L032
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160103	L032-03	NA	GFL007/12/14/96/9:00	G03L031/12/30/96/21:51	G03L031	10 39/49
CR-A160104	L032-04	NA		:54		50
CR-A160107	L032-07	NA		22:04	G03L031	28 51/53
CR-A160108	L032-08	NA		:07		54
CR-A160403	L032-11	NA		:10		55
CR-A160404	L032-12	NA		:13		56
CR-A160503	L032-15	NA		:16		57
CR-A160504	L032-16	NA		:19		58
CR-A160507	L032-19	NA		22:23		59
CR-A160603	L032-23	NA		21:35	G03L031	10/44
CR-A160603MS	L032-23M	NA		:45		47
CR-A160603DUP	L032-23D	NA		:48		48
CR-A160604	L032-24	NA		22:26	G03L031	52/60
CR-A160903	L032-27	NA		:29		61
CR-A160904	L032-28	NA		:33		62
CR-A160907	L032-31	NA		:43	G03L031	34/65
CR-A161003	L032-34	NA		:46		66
CR-A161004	L032-35	NA		:49		67
CR-A161007	L032-38	NA		:53		68
MBLKIW	GFL007WB			21:25	G03L031	10/41
LCS1	WL			:29		42
LCSD1	WC			:32		43
						*

* See sequence file run

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L032

SILVER BY GFAA

Seventeen (17) water samples were received on 12/10/96 to be analyzed for Silver by GFAA method 7760 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blank was free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   MS recoveries were within QC limits.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 3020A/7760
SILVER BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L032
Matrix : WATER

Date Collcted : 12/08/96
DaTime Received: 12/10/96
Instrument ID : EMAXTI03

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160103	L032-03	ND	1	NA	.001	.0002	12/30/9621:51	12/14/9609:00	G03L031020	G03L031010	GFL007W
CR-A160104	L032-04	ND	1	NA	.001	.0002	12/30/9621:54	12/14/9609:00	G03L031021	G03L031010	GFL007W
CR-A160107	L032-07	ND	1	NA	.001	.0002	12/30/9622:04	12/14/9609:00	G03L031024	G03L031022	GFL007W
CR-A160108	L032-08	ND	1	NA	.001	.0002	12/30/9622:07	12/14/9609:00	G03L031025	G03L031022	GFL007W
CR-A160403*	L032-11	ND	1	NA	.001	.0002	12/30/9622:10	12/14/9609:00	G03L031026	G03L031022	GFL007W
CR-A160404*	L032-12	ND	1	NA	.001	.0002	12/30/9622:13	12/14/9609:00	G03L031027	G03L031022	GFL007W
CR-A160503*	L032-15	ND	1	NA	.001	.0002	12/30/9622:16	12/14/9609:00	G03L031028	G03L031022	GFL007W
CR-A160504*	L032-16	ND	1	NA	.001	.0002	12/30/9622:19	12/14/9609:00	G03L031029	G03L031022	GFL007W
CR-A160507*	L032-19	ND	1	NA	.001	.0002	12/30/9622:23	12/14/9609:00	G03L031030	G03L031022	GFL007W
CR-A160603	L032-23	ND	1	NA	.001	.0002	12/30/9621:35	12/14/9609:00	G03L031015	G03L031010	GFL007W
CR-A160603MS	L032-23M	.00206	1	NA	.001	.0002	12/30/9621:45	12/14/9609:00	G03L031018	G03L031010	GFL007W
CR-A160603MSD	L032-23S	.00194	1	NA	.001	.0002	12/30/9621:48	12/14/9609:00	G03L031019	G03L031010	GFL007W
CR-A160604	L032-24	ND	1	NA	.001	.0002	12/30/9622:26	12/14/9609:00	G03L031031	G03L031022	GFL007W
CR-A160903**	L032-27	ND	1	NA	.001	.0002	12/30/9622:29	12/14/9609:00	G03L031032	G03L031022	GFL007W
CR-A160904**	L032-28	ND	1	NA	.001	.0002	12/30/9622:33	12/14/9609:00	G03L031033	G03L031022	GFL007W
CR-A160907**	L032-31	ND	1	NA	.001	.0002	12/30/9622:43	12/14/9609:00	G03L031036	G03L031034	GFL007W
CR-A161003**	L032-34	ND	1	NA	.001	.0002	12/30/9622:46	12/14/9609:00	G03L031037	G03L031034	GFL007W
CR-A161004**	L032-35	ND	1	NA	.001	.0002	12/30/9622:49	12/14/9609:00	G03L031038	G03L031034	GFL007W
CR-A161007	L032-38	ND	1	NA	.001	.0002	12/30/9622:53	12/14/9609:00	G03L031039	G03L031034	GFL007W
MBLK1W	GFL007WB	ND	1	NA	.001	.0002	12/30/9621:25	12/14/9609:00	G03L031012	G03L031010	GFL007W
LCS1W	GFL007WL	.00219	1	NA	.001	.0002	12/30/9621:29	12/14/9609:00	G03L031013	G03L031010	GFL007W
LCD1W	GFL007WC	.00208	1	NA	.001	.0002	12/30/9621:32	12/14/9609:00	G03L031014	G03L031010	GFL007W

PQL: Practical Quantitation Limit
* DATE COLLECTED : 12/09/96
** DATE COLLECTED : 12/07/96
AFCEE Ver. 1.1

410 628

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

VOLATILES

SDG#: 96L032

JANUARY 09, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L032

VOLATILES

Eleven (11) water samples were received on 12/10/96 to be analyzed for volatile organics in accordance with USEPA SW846.

1. Holding Time

   Analytical holding time was met.

2. Surrogate Recovery

   Recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

   % Recovery for 2-Chloroethyl vinyl ether was low in MS and was not present in MSD due to the instability of CEVE in acidified sample.

4. Laboratory Control Sample

   Vinyl acetate recovery was low in LCSD.

5. Method Blank

   Method blank was free of contamination.

6. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval. All QC requirements were met.

7. Sample Analysis

   All sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

12/12/1996 10:50

LAB CHRONICLE
EPA 8240

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L032
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160101	L032-01	NA	VOL 2302	12/18/96 10.53	LP 385	389
CR-A160105	L032-05	NA		18.20		404
CR-A160401	L032-09	NA		~~12.44~~ 13.11		393
CR-A160501	L032-13	NA		~~13.11~~ 13.39		394
CR-A160505	L032-17	NA		~~13.39~~ 14.07		395
CR-A160508	L032-20	NA		~~14.07~~ 14.34		396
CR-A160601	L032-21	NA		~~14.34~~ 15.02		397
CR-A160601MS	L032-21M	NA		~~15.02~~ 15.30		3[illegible]
CR-A160601MSD	L032-21S	NA		16.00		399
CR-A160901	L032-25	NA		16.28		400
CR-A160905	L032-29	NA		16.55		401
CR-A161001	L032-32	NA		17.23		402
CR-A161005	L032-36	NA		17.52		403
VBLK01	VOL2302B			9.14		386
LCS01	VOL2302C			9.42		387
LCSD01	VOL2302C			12.05		391

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
atch No.	: 96L032	DaTime Extrctd :	12/18/96 10:53
ample ID	: CR-A160101	DaTime Analyzd :	12/18/96 10:53
ab Cnt NO.	: L032-01	Dilutn Factor :	1
Lab File ID	: RLP389	Matrix :	WATER
xt Btch ID	: VOL2302	% Moisture :	NA
alib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
-Hexanone	ND	50	.962
-Methyl-2-Pentanone	ND	50	1.88
cetone	ND	100	2.18
Benzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
romomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
robenzene	ND	5	.345
oroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
ibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
ethylene Chloride	3.69F	5	.771
/p-Xylenes	ND	10	.71
-Xylene	ND	5	.26
Styrene	ND	5	.263
etrachloroethylene	ND	5	.32
oluene	ND	5	.372
rans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
richloroethene	ND	5	.325
inyl Acetate	ND	50	.293
inyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	88	79-118
romofluorobenzene	97	86-115
oluene-d8	96	88-110

QL: Practical Quantitation Limit
ACWHTG/JACWHTS: Revision 0, 18-NOV-96

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-5889 FAX: (310) 618-0818

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/10/96
Batch No.	: 96L032	DaTime Extrctd	: 12/18/96 18:20
Sample ID	: CR-A160105	DaTime Analyzd	: 12/18/96 18:20
Lab Cnt NO.	: L032-05	Dilutn Factor	: 1
Lab File ID	: RLP404	Matrix	: WATER
Ext Btch ID	: VOL2302	% Moisture	: NA
Calib. Ref.	: RLP385	Instrument ID	: MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	90	79-118
Bromofluorobenzene	97	86-115
Toluene-d8	98	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
atch No.	: 96L032	DaTime Extrctd :	12/18/96 13:11
ample ID	: CR-A160401	DaTime Analyzd :	12/18/96 13:11
Lab Cnt NO.	: L032-09	Dilutn Factor :	1
Lab File ID	: RLP393	Matrix :	WATER
xt Btch ID	: VOL2302	% Moisture :	NA
alib. Ref.	: RLP385	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
,2,3-Trichloropropane	ND	5	1.52
,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
-Hexanone	ND	50	.962
-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
romomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
bon Tetrachloride	ND	5	.398
orobenzene	ND	5	.345
broethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
ethylene Chloride	1.81F	5	.771
/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
etrachloroethylene	ND	5	.32
oluene	ND	5	.372
rans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
richloroethene	ND	5	.325
inyl Acetate	ND	50	.293
inyl Chloride	ND	10	.458

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	89	79-118
Bromofluorobenzene	89	86-115
Toluene-d8	99	88-110

QL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/18/96 13:39
Sample ID	: CR-A160501	DaTime Analyzd :	12/18/96 13:39
Lab Cnt NO.	: L032-13	Dilutn Factor :	1
Lab File ID:	RLP394	Matrix :	WATER
Ext Btch ID:	VOL2302	% Moisture :	NA
Calib. Ref.:	RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.39
Chlorobenzene	ND	5	.34
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	90	79-118
Bromofluorobenzene	98	86-115
Toluene-d8	100	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
atch No.	: 96L032	DaTime Extrctd :	12/18/96 14:07
ample ID	: CR-A160505	DaTime Analyzd :	12/18/96 14:07
ab Cnt NO.	: L032-17	Dilutn Factor :	1
Lab File ID:	RLP395	Matrix :	WATER
xt Btch ID:	VOL2302	% Moisture :	NA
alib. Ref.:	RLP385	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
-Hexanone	ND	50	.962
-Methyl-2-Pentanone	ND	50	1.88
cetone	14F	100	2.18
Benzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
romomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
orobenzene	ND	5	.345
oroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
ethylene Chloride	ND	5	.771
/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
etrachloroethylene	ND	5	.32
oluene	ND	5	.372
rans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
inyl Acetate	ND	50	.293
inyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	89	79-118
Bromofluorobenzene	98	86-115
Toluene-d8	99	88-110

QL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/18/96 14:34
Sample ID	: CR-A160508	DaTime Analyzd :	12/18/96 14:34
Lab Cnt NO.	: L032-20	Dilutn Factor :	1
Lab File ID	: RLP396	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.39P
Chlorobenzene	ND	5	.34
Chloroethane	ND	10	.7
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	1.82F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	88	79-118
Bromofluorobenzene	99	86-115
Toluene-d8	98	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
atch No.	: 96L032	DaTime Extrctd :	12/18/96 15:02
ample ID	: CR-A160601	DaTime Analyzd :	12/18/96 15:02
Lab Cnt NO.	: L032-21	Dilutn Factor :	1
Lab_File ID	: RLP397	Matrix :	WATER
xt Btch ID	: VOL2302	% Moisture :	NA
alib. Ref.	: RLP385	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
,2,3-Trichloropropane	ND	5	1.52
,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
-Hexanone	ND	50	.962
-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
romomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
rbon Tetrachloride	ND	5	.398
orobenzene	ND	5	.345
oroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
ethylene Chloride	1.66F	5	.771
/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
etrachloroethylene	ND	5	.32
oluene	ND	5	.372
rans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
richloroethene	ND	5	.325
inyl Acetate	ND	50	.293
inyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	91	79-118
Bromofluorobenzene	97	86-115
Toluene-d8	97	88-110

QL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/18/96 16:28
Sample ID	: CR-A160901	DaTime Analyzd :	12/18/96 16:28
Lab Cnt NO.	: L032-25	Dilutn Factor :	1
Lab File ID	: RLP400	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.39
Chlorobenzene	ND	5	.34
Chloroethane	ND	10	.7
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	89	79-118
Bromofluorobenzene	94	86-115
Toluene-d8	100	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/18/96 16:55
Sample ID	: CR-A160905	DaTime Analyzd :	12/18/96 16:55
Lab Cnt NO.	: L032-29	Dilutn Factor :	1
Lab File ID	: RLP401	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
cis-1,2-Dichloroethene	ND	5	.402
cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	2.77F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	90	79-118
Bromofluorobenzene	99	86-115
Toluene-d8	97	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

410 640

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/18/96 17:23
Sample ID	: CR-A161001	DaTime Analyzd :	12/18/96 17:23
Lab Cnt NO.	: L032-32	Dilutn Factor :	1
Lab File ID	: RLP402	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl-Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.34
Chloroethane	ND	10	.7
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	2.26F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	90	79-118
Bromofluorobenzene	98	86-115
Toluene-d8	93	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
atch No.	: 96L032	DaTime Extrctd :	12/18/96 17:52
ample ID	: CR-A161005	DaTime Analyzd :	12/18/96 17:52
ab Cnt NO.	: L032-36	Dilutn Factor :	1
Lab File ID:	RLP403	Matrix :	WATER
xt Btch ID:	VOL2302	% Moisture :	NA
alib. Ref.:	RLP385	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
-Hexanone	ND	50	.962
-Methyl-2-Pentanone	ND	50	1.88
cetone	ND	100	2.18
Benzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
romomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
rbon Tetrachloride	ND	5	.398
orobenzene	ND	5	.345
oroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
ethylene Chloride	3.39F	5	.771
/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
etrachloroethylene	ND	5	.32
oluene	ND	5	.372
rans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
richloroethene	ND	5	.325
inyl Acetate	ND	50	.293
inyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	91	79-118
Bromofluorobenzene	97	86-115
Toluene-d8	95	88-110

QL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/18/96
Batch No.	: 96L032	DaTime Extrctd :	12/18/96 09:14
Sample ID	: MBLK1W	DaTime Analyzd :	12/18/96 09:14
Lab Cnt NO.	: VOL2302B	Dilutn Factor :	1
Lab File ID	: RLP386	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.34
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	90	79-118
Bromofluorobenzene	93	86-115
Toluene-d8	98	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

410 643

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

SEMIVOLATILES

SDG#: 96L032

JANUARY 09, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L032

SW 3520B/8270B
SEMIVOLATILES

Ten (10) water samples were received on 12/10/96 to be analyzed for semivolatile organics by Method 8270B in accordance with USEPA SW846 (1994).

1. Holding Time

   Analytical holding time was met.

2. Surrogate Recovery

   All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

   All recoveries were within QC limits except no recovery of 3,3'-Dichlorobenzidine was found in L032-22M and 22S.

4. Lab Control Sample/Lab Control Sample Duplicate

   All recoveries were within QC limits except low recovery of Benzoic acid in SVL009WL.

5. Method Blank

   Method blank was free of contamination.

6. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval. All QC requirements were met.

7. Sample Analysis

   Sample analyses were within QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

12/12/1996 10:50

LAB CHRONICLE
EPA 8270

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L032
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160102	L032-02	NA	SVL009W / 12/13/96 / 15:30	RAS 014 / 01/07/97 / 14:46	RAS014	RAS018
CR-A160106	L032-06	NA		/ 15:32		RAS019
CR-A160402	L032-10	NA		/ 16:19		RAS020
CR-A160502	L032-14	NA		/ 17:06		RAS021
CR-A160506	L032-18	NA		/ 17:53		RAS022
CR-A160602	L032-22	NA		/ 18:42		RAS023
CR-A160602MS	L032-22M	NA		/ 19:29		RAS024
CR-A160602MSD	L032-22S	NA		/ 20:16		RAS025
CR-A160902	L032-26	NA		/ 21:02		RAS0
CR-A160906	L032-30	NA		/ 21:49		RAS027
CR-A161002	L032-33	NA		/ 22:36		RAS028
CR-A161006	L032-37	NA		RAS046 / 01/08/97 / 12:26	RAS046	RAS047
MBLKIW	SVL009WB			RAS014 / 01/07/97 / 12:26	RAS014	RAS015
LCSIW	SVL009WL			/ 13:13		RAS016
LCDIW	SVL009WC			/ 13:59		RAS017

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

410 646

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160102	DaTime Analyzd :	01/07/97 14:46
Lab Cnt NO.	: L032-02	Dilutn Factor :	1
Lab File ID	: RAS018	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160102	DaTime Analyzd :	01/07/97 14:46
Lab Cnt NO.	: L032-02	Dilutn Factor :	1
Lab File ID	: RAS018	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	5.94F	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.[illegible]
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	73	25-134
2-Fluorobiphenyl	59	43-125
2-Fluorophenol	56	25-125
Nitrobenzene-d5	61	32-125
Phenol-d5	58	25-125
Terphenyl-d14	77	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/10/96
Batch No.	: 96L032	DaTime Extrctd	: 12/13/96 15:30
Sample ID	: CR-A160106	DaTime Analyzd	: 01/07/97 15:32
Lab Cnt NO.	: L032-06	Dilutn Factor	: 1
Lab File ID	: RAS019	Matrix	: WATER
Fct Btch ID	: SVL009W	% Moisture	: NA
Calib. Ref.	: RAS014	Instrument ID	: MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:3
Sample ID	: CR-A160106	DaTime Analyzd :	01/07/97 15:32
Lab Cnt NO.:	L032-06	Dilutn Factor :	1
Lab File ID:	RAS019	Matrix :	WATER
Ext Btch ID:	SVL009W	% Moisture :	NA
Calib. Ref.:	RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.6
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	65	25-134
2-Fluorobiphenyl	52	43-125
2-Fluorophenol	54	25-125
Nitrobenzene-d5	55	32-125
Phenol-d5	55	25-125
Terphenyl-d14	67	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
atch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
ample ID	: CR-A160402	DaTime Analyzd :	01/07/97 16:19
Lab Cnt NO.	: L032-10	Dilutn Factor :	1
Lab File ID	: RAS020	Matrix :	WATER
xt Btch ID	: SVL009W	% Moisture :	NA
alib. Ref.	: RAS014	Instrument ID :	MSBNA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
,2,4-Trichlorobenzene	ND	10	2.8
,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
,4,5-Trichlorophenol	ND	50	3.4
,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
,4-Dimethylphenol	ND	10	2.2
,4-Dinitrophenol	ND	50	.86
,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
-Chloronaphthalene	ND	10	2.9
-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
itroaniline	ND	50	3.1
itrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
-Nitroaniline	ND	50	3
,6-Dinitro-2-methylphenol	ND	50	1.8
-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
-Chloroaniline	ND	20	3.1
-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
-Nitrophenol	ND	50	.91
cenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
nthracene	ND	10	2.8
enzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
enzo(k)fluoranthene	ND	10	3.3
enzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
is(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:3[illegible]
Sample ID	: CR-A160402	DaTime Analyzd :	01/07/97 16:19
Lab Cnt NO.	: L032-10	Dilutn Factor :	1
Lab File ID	: RAS020	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.6
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.[illegible]
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	67	25-134
2-Fluorobiphenyl	63	43-125
2-Fluorophenol	52	25-125
Nitrobenzene-d5	71	32-125
Phenol-d5	50	25-125
Terphenyl-d14	73	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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lient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
ch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
ample ID	: CR-A160502	DaTime Analyzd :	01/07/97 17:06
ab Cnt NO.	: L032-14	Dilutn Factor :	1
Lab File ID	: RAS021	Matrix :	WATER
xt Btch ID	: SVL009W	% Moisture :	NA
alib. Ref.	: RAS014	Instrument ID :	MSBNA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
,2-Dichlorobenzene	ND	10	2.7
,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
,4,5-Trichlorophenol	ND	50	3.4
,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
,4-Dinitrophenol	ND	50	.86
,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
-Chlorophenol	ND	10	2.9
-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
itroaniline	ND	50	3.1
itrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
,6-Dinitro-2-methylphenol	ND	50	1.8
-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
-Chlorophenyl phenyl ether	ND	10	3.8
-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
-Nitrophenol	ND	50	.91
cenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
enzo(a)anthracene	ND	10	2.4
enzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
enzo(k)fluoranthene	ND	10	3.3
enzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
is(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160502	DaTime Analyzd :	01/07/97 17:06
Lab Cnt NO.	: L032-14	Dilutn Factor :	1
Lab File ID	: RAS021	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.[illegible]
Hexachloroethane	ND	10	[illegible]
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	77	25-134
2-Fluorobiphenyl	63	43-125
2-Fluorophenol	59	25-125
Nitrobenzene-d5	74	32-125
Phenol-d5	60	25-125
Terphenyl-d14	76	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

lient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
ch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
ample ID	: CR-A160506	DaTime Analyzd :	01/07/97 17:53
ab Cnt NO.	: L032-18	Dilutn Factor :	1
Lab File ID	: RAS022	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
alib. Ref.	: RAS014	Instrument ID :	MSBNA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
,2-Dichlorobenzene	ND	10	2.7
,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
,4,6-Trichlorophenol	ND	10	3.5
,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
,4-Dinitrophenol	ND	50	.86
,4-Dinitrotoluene	ND	10	4
,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
-Chlorophenol	ND	10	2.9
-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2 Nitroaniline	ND	50	3.1
trophenol	ND	10	3
-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
,6-Dinitro-2-methylphenol	ND	50	1.8
-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
-Chlorophenyl phenyl ether	ND	10	3.8
-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
cenaphthene	ND	10	3.2
cenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
enzo(a)anthracene	ND	10	2.4
enzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
enzo(g,h,i)perylene	ND	10	3.3
enzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
is(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/09/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:36
Sample ID	: CR-A160506	DaTime Analyzd :	01/07/97 17:53
Lab Cnt NO.	: L032-18	Dilutn Factor :	1
Lab File ID	: RAS022	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	55	25-134
2-Fluorobiphenyl	47	43-125
2-Fluorophenol	46	25-125
Nitrobenzene-d5	48	32-125
Phenol-d5	48	25-125
Terphenyl-d14	62	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160602	DaTime Analyzd :	01/07/97 18:42
Lab Cnt NO.	: L032-22	Dilutn Factor :	1
Lab File ID	: RAS023	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160602	DaTime Analyzd :	01/07/97 18:42
Lab Cnt NO.	: L032-22	Dilutn Factor :	1
Lab File ID	: RAS023	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	86	25-134
2-Fluorobiphenyl	74	43-125
2-Fluorophenol	70	25-125
Nitrobenzene-d5	74	32-125
Phenol-d5	76	25-125
Terphenyl-d14	86	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160902	DaTime Analyzd :	01/07/97 21:02
Lab Cnt NO.	: L032-26	Dilutn Factor :	1
Lab File ID	: RAS026	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160902	DaTime Analyzd :	01/07/97 21:02
Lab Cnt NO.	: L032-26	Dilutn Factor :	1
Lab File ID	: RAS026	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	16.8	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	66	25-134
2-Fluorobiphenyl	62	43-125
2-Fluorophenol	45	25-125
Nitrobenzene-d5	68	32-125
Phenol-d5	44	25-125
Terphenyl-d14	76	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160906	DaTime Analyzd :	01/07/97 21:49
Lab Cnt NO.	: L032-30	Dilutn Factor :	1
Lab File ID	: RAS027	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A160906	DaTime Analyzd :	01/07/97 21:49
Lab Cnt NO.	: L032-30	Dilutn Factor :	1
Lab File ID	: RAS027	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	72	25-134
2-Fluorobiphenyl	59	43-125
2-Fluorophenol	61	25-125
Nitrobenzene-d5	65	32-125
Phenol-d5	64	25-125
Terphenyl-d14	74	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

410 662

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A161002	DaTime Analyzd :	01/07/97 22:36
Lab Cnt NO.:	L032-33	Dilutn Factor :	1
Lab File ID:	RAS028	Matrix :	WATER
Ext Btch ID:	SVL009W	% Moisture :	NA
Calib. Ref.:	RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

410 663

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/07/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A161002	DaTime Analyzd :	01/07/97 22:36
Lab Cnt NO.	: L032-33	Dilutn Factor :	1
Lab File ID	: RAS028	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS014	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	84	25-134
2-Fluorobiphenyl	72	43-125
2-Fluorophenol	70	25-125
Nitrobenzene-d5	77	32-125
Phenol-d5	72	25-125
Terphenyl-d14	89	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

410 664

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/10/96
Batch No.	: 96L032	DaTime Extrctd	: 12/13/96 15:30
Sample ID	: CR-A161006	DaTime Analyzd	: 01/08/97 12:26
Lab Cnt NO.	: L032-37	Dilutn Factor	: 1
Lab File ID	: RAS047	Matrix	: WATER
Ext Btch ID	: SVL009W	% Moisture	: NA
Calib. Ref.	: RAS046	Instrument ID	: MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

410 665

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/08/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/10/96
Batch No.	: 96L032	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A161006	DaTime Analyzd :	01/08/97 12:26
Lab Cnt NO.	: L032-37	Dilutn Factor :	1
Lab File ID	: RAS047	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RAS046	Instrument ID :	MSBNA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	35.1	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	82	25-134
2-Fluorobiphenyl	71	43-125
2-Fluorophenol	74	25-125
Nitrobenzene-d5	78	32-125
Phenol-d5	79	25-125
Terphenyl-d14	89	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

TAB

EMAX Batch No. 96L039

410 667

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

METALS

SDG#: 96L039

DECEMBER 31, 1996

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

RECEIVED
JAN 06 1997
JE - Denver

Date: 01-02-1997
EMAX Batch No.: 96L039

Attn: Lynn Schuetter

Jacobs Engineering Group
600 17th. Street, Ste. 1100N
Denver CO 80202

Subject: Laboratory Report
Project: Carswell AFB / 05G47900

Enclosed is the Laboratory report for samples received on 12/12/96. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
CR-A154501	L039-01	12/10/96	Soil	EPA 8240
CR-A154502	L039-02	12/10/96	Soil	Metals Mercury EPA 8270
CR-A154503	L039-03	12/10/96	Soil	EPA 8240
CR-A154504	L039-04	12/10/96	Soil	Metals Mercury EPA 8270
CR-A154601	L039-05	12/10/96	Soil	EPA 8240
CR-A154602	L039-06	12/10/96	Soil	Metals Mercury EPA 8270
CR-A154603	L039-07	12/10/96	Soil	EPA 8240
CR-A154604	L039-08	12/10/96	Soil	Metals Mercury EPA 8270
CR-A154703	L039-09	12/10/96	Soil	EPA 8240
CR-A154704	L039-10	12/10/96	Soil	Metals Mercury

Sample ID	Control #	Col Date	Matrix	Analysis
				EPA 8270
CR-A154801	L039-11	12/10/96	Soil	EPA 8240
CR-A154802	L039-12	12/10/96	Soil	Metals
				Mercury
				EPA 8270
CR-A154803	L039-13	12/10/96	Soil	EPA 8240
CR-A154804	L039-14	12/10/96	Soil	Metals
				Mercury
				EPA 8270
CR-A154901	L039-15	12/10/96	Soil	EPA 8240
CR-A154902	L039-16	12/10/96	Soil	Metals
				Mercury
				EPA 8270
CR-A154903	L039-17	12/10/96	Soil	EPA 8240
CR-A154904	L039-18	12/10/96	Soil	Metals
				Mercury
				EPA 8270
CR-A156201	L039-19	12/10/96	Soil	EPA 8240
CR-A156202	L039-20	12/10/96	Soil	Metals
				Mercury
				EPA 8270
CR-A156203	L039-21	12/10/96	Soil	EPA 8240
CR-A156204	L039-22	12/10/96	Soil	Metals
				Mercury
				EPA 8270
CR-A156205	L039-23	12/10/96	Water	EPA 8240
CR-A156206	L039-24	12/10/96	Water	EPA 8270
CR-A156207	L039-25	12/10/96	Water	Metals
				Mercury
CR-A156301	L039-26	12/11/96	Soil	EPA 8240
CR-A156302	L039-27	12/11/96	Soil	Metals
				Mercury
				EPA 8270
CR-A156401	L039-28	12/11/96	Soil	EPA 8240
CR-A156401MS	L039-28M	12/11/96	Soil	EPA 8240
CR-A156401MSD	L039-28S	12/11/96	Soil	EPA 8240
CR-A156402	L039-29	12/11/96	Soil	Metals
				Mercury
				EPA 8270
CR-A156402MS	L039-29M	12/11/96	Soil	Metals
				Mercury

Sample ID	Control #	Col Date	Matrix	Analysis
				EPA 8270
CR-A156402MSD	L039-29S	12/11/96	Soil	EPA 8270
CR-A156402DUP	L039-29D	12/11/96	Soil	Metals
				Mercury
CR-A156501	L039-30	12/11/96	Soil	EPA 8240
CR-A156502	L039-31	12/11/96	Soil	Metals
				Mercury
				EPA 8270
CR-A161201	L039-32	12/11/96	Soil	EPA 8270
CR-A161202	L039-33	12/11/96	Soil	EPA 8270
CR-A161203	L039-34	12/11/96	Soil	EPA 8240
CR-A161204	L039-35	12/11/96	Soil	EPA 8270
CR-A161205	L039-36	12/11/96	Water	EPA 8240
CR-A161206	L039-37	12/11/96	Water	EPA 8240
CR-A161207	L039-38	12/11/96	Water	EPA 8270
CR-A161208	L039-39	12/11/96	Water	Metals
				Mercury

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

FedEx *USA Airbill* Tracking Number 2963020830

96 L039
12-12-96
10:00 AM

Recipient's Copy

1 From

Date 12/11/96 [redacted]

Sender's Name DAN Schultz Phone (817) 239-1768

Dept./Floor/Suite/Room

Company JACOBS ENGINEERING

Address 6560 White Settlement Road

City Ft. Worth State TX Zip 76114

2 Your Internal Billing Reference Information 05G47900-50501

3 To

Recipient's Name Sample Receiving Phone (310) 618-8889

Dept./Floor/Suite/Room

Company EMAX Laboratories

Address 630 Maple Ave.

City Torrance State CA Zip 90503

For HOLD at FedEx Location check here

☐ Hold Weekday ☐ Hold Saturday

For Saturday Delivery check here

☐

4a Express Package Service *Packages under 150 lbs.*

Delivery Commitment may be later in some areas

☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon) ☐ FedEx 2Day* (Second business day)

☐ NEW FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply)

* FedEx Letter Rate not available. Minimum charge: One pound FedEx 2Day rate

4b Express Freight Service *Packages over 150 lbs.*

Delivery Commitment may be later in some areas

☐ FedEx Overnight Freight (Next business day service for any distance) ☐ FedEx 2Day Freight (Second business day service for any distance) ☐ FedEx Express Saver Freight (Up to 3 business day service based upon distance)

(Call for delivery schedule. See back for detailed descriptions of freight products.)

6 Packaging ☐ FedEx Letter ☐ FedEx Pak (Declared value limit $500) ☐ FedEx Box ☐ FedEx Tube ☒ Other Pkg

8 Special Handling

Does this shipment contain dangerous goods? ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice — Dry Ice, 9, UN 1845 III, _____ x _____ kg 904 (Dangerous Goods Shipper's Declaration not required)

CA ☐ Cargo Aircraft Only

7 Payment

☐ Obtain Recipient FedEx Account No

Bill to: ☒ Sender (Account no. on account will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx account no. or Credit Card no. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	71	$ .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

Questions?
Call 1·800·Go·FedEx
(1·800·463·3339)

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2 9 6 3 0 2 0 8 3 0

410 671

SAMPLE RECEIPT FORM

CONTROL NO	96L039
CLIENT	Jacobs Engineering
PROJECT	CARWELL AFB(D021)

DATE	12-12-96
TIME	10:00 AM
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO EMAX LABORATORY:		BY	ON(DATE)	AT(TIME)	FROM(SITE/CO)	COMMENTS
PICKED-UP BY EMAX COURIER						
DELIVERED BY CLIENT						
SHIPPED/AIRBILL NO	Fed Ex 2963020830	see Airbill				

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:			✓ INTACT	___ DAMAGED	✓ SEALED	___ NOT SEALED	___ NO CONTAINER
CONTAINER:	INSIDE TEMPERATURE (4°C ± 2°C)	4 °C		CUSTODY SEAL		LOCATION	NUMBER
___ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	___ DAMAGED	Front closure	1
___ BOX	INSULATION:		OK	see COC NAME:		Rear closure	1
___ OTHER:	ICE/COOLANT:	Regular		DATE:			
___	PACKING MATERIAL:	plastic bag.		TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	___ SEALED	✓ ENCLOSED	___ HANDCARRIED	___ FAXED	___ MAILED

SAMPLE LOG-IN	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	None	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH	OK	
HOLDING TIME	SUFFICENT		
SAMPLE PRESERVATION (For appropriate preservative see OP 0001 Appendix I)	NaOH preserved samples pH ≥ 12 HNO_3 / H_2SO_4 preserved samples pH ≤ 2		
HEADSPACE/BUBBLES	ZERO/NONE		
SAMPLE LABEL INFORMATION	SUFFICIENT		
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT		

SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER

INDIVIDUAL SAMPLE CONTAINER:	___ NONE	✓ SEALED PLASTIC BAG	___ CAN	___ OTHER(SPECIFY): ___

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION

CLIENT SERVICES REPRESENTATIVE RECEIVED BY	Lincoln Johnson 12/13/96	DATE		TIME

410 672

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

METALS

Fourteen (14) soil and two (2) water samples were received on 12/12/96 to be analyzed for metals analysis by ICP method in accordance with USEPA SW846 method 6010A. Antimony, silver, selenium, and nickel were analyzed by GFAA.

1. Holding Time

Digestion and analysis met holding time criteria.

2. Blank

Trace amount of some elements were found in soil blank: iron, thallium, and sodium. All detected levels were below PQL except sodium was slightly above PQL.

Trace amount of aluminum, iron, copper, thallium, and sodium were found in water blank. All detected levels were below PQL except sodium was slightly above PQL.

3. Matrix Spike/Matrix Spike Duplicate

MS/MSD recoveries were within QC limits for soil matrix except beryllium, molybdenum, arsenic, cadmium, thallium, sodium, and lead recoveries in MS sample and molybdenum, manganese, thallium, cadmium, and arsenic recoveries in MSD sample. The QC limit does not apply to aluminum, barium, calcium, and iron since the elements concentration were more than 4 times spiking level. There was no MS/MSD sample designated for water matrix.

4. Lab Control Sample/Lab Control Duplicate

All lab control results were within the control limits.

5. Calibration

All initial and continuing calibration results were within QC criteria except sodium in associated ICB and CCBs were slightly above PQL.

6. Sample Analysis

Arsenic, lead, and cadmium were analyzed by Trace-ICP, all others metals by ICP.

Several serial dilution were out of QC limits, post analytical spike of all failed serial dilutions were within QC limits except calcium, thallium, and lead in soil matrix.

12/16/1996 10:15

LAB CHRONICLE
Metals

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154502	L039-02	19.4	IPL010S/12/13/96/11.30	IO7L019/12/23/96	*	
CR-A154504	L039-04	13.9				
CR-A154602	L039-06	12.0				
CR-A154604	L039-08	12.7				
CR-A154704	L039-10	12.6				
CR-A154802	L039-12	7.1				
CR-A154804	L039-14	11.0				
CR-A154902	L039-16	7.8				
CR-A154904	L039-18	11.3				
CR-A156202	L039-20	10.4				
CR-A156204	L039-22	10.1				
CR-A156302	L039-27	12.3				
CR-A156402	L039-29	16.0				
CR-A156402MS	L039-29M	16.0				
CR-A156402DUP	L039-29D	16.0				
CR-A156502	L039-31	16.4				
MBLK 1S	IPL010SB					
LCS	↓	SL				
LCSD	↓	SC				

* As, Cd, Pb, Tl were analyzed on 12/22/96 File I31L033

12/16/1996 10:15

LAB CHRONICLE
Metals

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156207	L039-25	NA	IPL014W / 12/14/96 / 09.00	I07L019 / 12/23/96	*	
CR-A161208	L039-39	NA				
MBLK1W	IPL014WB					
LCS	WL					
LCSD	WC					

* As, Cd, Pb were analyzed on 12/22/96 File I31L033

SW3050A/6010A
METALS BY ICP

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154502	DaTime Analyzd :	12/23/96 15:27
Lab Cnt NO.:	L039-02	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	19.4
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	16300	62	1.25
Barium	103	2.48	.0496
Beryllium	.863	.372	.0124
Calcium	14800	12.4	2.79
Chromium	13.1	8.68	.682
Cobalt	4.46F	8.68	1.04
Copper	16.7	7.44	.174
Iron	12900	8.68	.72
Magnesium	2740	37.2	6.86
Manganese	335	2.48	.149
Molybdenum	ND	9.93	.757
Potassium	2790	620	64.8
Sodium	40.5	37.2	2.48
Vanadium	19.4	9.93	.484
Zinc	36.9	2.48	.211

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SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154502	DaTime Analyzd :	12/22/96 13:39
Lab Cnt NO.:	L039-02	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	19.4
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	3.68	.62	.571
Cadmium	.206	.124	.124
Lead	13.4	.62	.174
Thallium	ND	49.6	1.28

SW3050A/6010A
METALS BY ICP

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154504	DaTime Analyzd :	12/23/96 15:30
Lab Cnt NO.	: L039-04	Dilutn Factor :	1
Lab File ID	: I07L019	Matrix :	SOIL
Ext Btch ID	: IPL010S	% Moisture :	13.9
Calib. Ref.	: I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	9210	58.1	1.17
Barium	96.9	2.32	.0465
Beryllium	.435	.348	.0116
Calcium	146000	11.6	2.61
Chromium	7.18F	8.13	.639
Cobalt	1.54F	8.13	.976
Copper	5.97F	6.97	.163
Iron	6860	8.13	.674
Magnesium	1540	34.8	6.42
Manganese	83.9	2.32	.139
Molybdenum	ND	9.29	.708
Potassium	780	581	60.7
Sodium	18.1F	34.8	2.32
Vanadium	12.8	9.29	.453
[illegible]	17.6	2.32	.197

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154504	DaTime Analyzd :	12/22/96 13:43
Lab Cnt NO.:	L039-04	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	13.9
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	1.67	.581	.534
Cadmium	.13	.116	.116
Lead	1.59	.581	.163
Thallium	1.28F	46.5	1.2

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154602	DaTime Analyzd :	12/23/96 15:34
Lab Cnt NO.:	L039-06	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	12.0
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	3690	56.8	1.15
Barium	28.6	2.27	.0455
Beryllium	.229F	.341	.0114
Calcium	2370	11.4	2.56
Chromium	5.77F	7.95	.625
Cobalt	2.45F	7.95	.955
Copper	5.68F	6.82	.159
Iron	5020	7.95	.659
Magnesium	202	34.1	6.28
Manganese	132	2.27	.136
Molybdenum	.719F	9.09	.693
Potassium	686	568	59.4
Sodium	41.1	34.1	2.27
Vanadium	8.34F	9.09	.443
[illegible]	23.6	2.27	.193

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SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154602	DaTime Analyzd :	12/22/96 13:47
Lab Cnt NO.:	L039-06	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	12.0
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	3.02	.568	.523
Cadmium	.145	.114	.114
Lead	14.8	.568	.159
Thallium	ND	45.5	1.17

SW3050A/6010A
METALS BY ICP

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
roject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154604	DaTime Analyzd :	12/23/96 15:38
Lab Cnt NO.:	L039-08	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	12.7
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	5950	57.3	1.16
Barium	22.7	2.29	.0458
Beryllium	.365	.344	.0115
Calcium	843	11.5	2.58
Chromium	7.04F	8.02	.63
Cobalt	2.53F	8.02	.962
Copper	6.29F	6.87	.16
Iron	7350	8.02	.664
Magnesium	493	34.4	6.33
Manganese	47.1	2.29	.137
Molybdenum	ND	9.16	.699
Potassium	626	573	59.8
Sodium	39.4	34.4	2.29
Vanadium	9.7	9.16	.447
nc	13	2.29	.195

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154604	DaTime Analyzd :	12/22/96 13:51
Lab Cnt NO.:	L039-08	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	12.7
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	1.45	.573	.527
Cadmium	ND	.115	.115
Lead	4.48	.573	.16
Thallium	ND	45.8	1.18

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154704	DaTime Analyzd :	12/23/96 15:41
Lab Cnt NO.	: L039-10	Dilutn Factor :	1
Lab File ID	: I07L019	Matrix :	SOIL
Ext Btch ID	: IPL010S	% Moisture :	12.6
Calib. Ref.	: I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	13600	57.2	1.16
Barium	43.4	2.29	.0458
Beryllium	.724	.343	.0114
Calcium	1740	11.4	2.57
Chromium	13.1	8.01	.629
Cobalt	2.9F	8.01	.961
Copper	11.4	6.86	.16
Iron	13700	8.01	.664
Magnesium	550	34.3	6.33
Manganese	85.8	2.29	.137
Molybdenum	ND	9.15	.698
Potassium	1310	572	59.8
Sodium	38.4	34.3	2.29
Vanadium	20	9.15	.446
Zinc	21.9	2.29	.195

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SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154704	DaTime Analyzd :	12/22/96 13:55
Lab Cnt NO.	: L039-10	Dilutn Factor :	1
Lab File ID	: I31L033	Matrix :	SOIL
Ext Btch ID	: IPL010S	% Moisture :	12.6
Calib. Ref.	: I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	2.81	.572	.526
Cadmium	ND	.114	.114
Lead	6.38	.572	.16
Thallium	1.28F	45.8	1.18

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154802	DaTime Analyzd :	12/23/96 15:45
Lab Cnt NO.:	L039-12	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	7.1
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	2680	53.8	1.09
Barium	30.4	2.15	.0431
Beryllium	.18F	.323	.0108
Calcium	1720	10.8	2.42
Chromium	5.06F	7.53	.592
Cobalt	2.61F	7.53	.904
Copper	5.51F	6.46	.151
Iron	4130	7.53	.624
Magnesium	140	32.3	5.95
Manganese	217	2.15	.129
Molybdenum	ND	8.61	.657
Potassium	434F	538	56.2
Sodium	41.6	32.3	2.15
Vanadium	7.06F	8.61	.42
Zinc	32.8	2.15	.183

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SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154802	DaTime Analyzd :	12/22/96 13:59
Lab Cnt NO.:	L039-12	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	7.1
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	1.24	.538	.495
Cadmium	.174	.108	.108
Lead	12.8	.538	.151
Thallium	ND	43.1	1.11

SW3050A/6010A
METALS BY ICP

.ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154804	DaTime Analyzd :	12/23/96 15:49
Lab Cnt NO.:	L039-14	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	11.0
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	7470	56.2	1.13
Barium	46.4	2.25	.0449
Beryllium	.456	.337	.0112
Calcium	1010	11.2	2.53
Chromium	8.27	7.87	.618
Cobalt	2.48F	7.87	.944
Copper	8.79	6.74	.157
Iron	9770	7.87	.652
Magnesium	292	33.7	6.21
Manganese	28.7	2.25	.135
Molybdenum	ND	8.99	.685
Potassium	741	562	58.7
Sodium	44.5	33.7	2.25
Vanadium	15.4	8.99	.438
c	13.6	2.25	.191

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SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154804	DaTime Analyzd :	12/22/96 14:03
Lab Cnt NO.:	L039-14	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	11.0
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	2.17	.562	.517
Cadmium	ND	.112	.112
Lead	5.22	.562	.157
Thallium	ND	44.9	1.16

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154902	DaTime Analyzd :	12/23/96 15:52
Lab Cnt NO.:	L039-16	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	7.8
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	1790	54.2	1.1
Barium	24.9	2.17	.0434
Beryllium	.164F	.325	.0108
Calcium	418	10.8	2.44
Chromium	5.19F	7.59	.597
Cobalt	2.66F	7.59	.911
Copper	4.44F	6.51	.152
Iron	3460	7.59	.629
Magnesium	112	32.5	6
Manganese	258	2.17	.13
Molybdenum	.812F	8.68	.662
Potassium	452F	542	56.7
Sodium	42.3	32.5	2.17
Vanadium	5.82F	8.68	.423
Zinc	13.3	2.17	.184

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SW3050A/6010A
TRACE BY ICP

lient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
roject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154902	DaTime Analyzd :	12/22/96 14:07
Lab Cnt NO.:	L039-16	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	7.8
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	1.23	.542	.499
Cadmium	ND	.108	.108
Lead	9.85	.542	.152
Thallium	ND	43.4	1.12

SW3050A/6010A
METALS BY ICP

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154904	DaTime Analyzd :	12/23/96 15:56
Lab Cnt NO.:	L039-18	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	11.3
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	9290	56.4	1.14
Barium	59.9	2.25	.0451
Beryllium	.539	.338	.0113
Calcium	1000	11.3	2.54
Chromium	9.29	7.89	.62
Cobalt	3.63F	7.89	.947
Copper	10.1	6.76	.158
Iron	12200	7.89	.654
Magnesium	421	33.8	6.23
Manganese	51.2	2.25	.135
Molybdenum	.968F	9.02	.688
Potassium	874	564	58.9
Sodium	41.8	33.8	2.25
Vanadium	17.1	9.02	.44
Zinc	18.7	2.25	.192

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A154904	DaTime Analyzd :	12/22/96 14:11
Lab Cnt NO.:	L039-18	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	11.3
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	2.53	.564	.519
Cadmium	ND	.113	.113
Lead	5.29	.564	.158
Thallium	ND	45.1	1.16

SW3050A/6010A
METALS BY ICP

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156202	DaTime Analyzd :	12/23/96 16:00
Lab Cnt NO.:	L039-20	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	10.4
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	3350	55.8	1.13
Barium	37.8	2.23	.0446
Beryllium	.254F	.335	.0112
Calcium	13800	11.2	2.51
Chromium	6.61F	7.81	.614
Cobalt	2.59F	7.81	.938
Copper	7.12	6.7	.156
Iron	4880	7.81	.647
Magnesium	306	33.5	6.17
Manganese	260	2.23	.134
Molybdenum	.941F	8.93	.681
Potassium	817	558	58.3
Sodium	39.4	33.5	2.23
Vanadium	8.95	8.93	.435
Zinc	18.5	2.23	.19

410 696

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156202	DaTime Analyzd :	12/22/96 14:14
Lab Cnt NO.:	L039-20	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	10.4
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	1.51	.558	.513
Cadmium	.156	.112	.112
Lead	40.5	.558	.156
Thallium	1.15F	44.6	1.15

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156204	DaTime Analyzd :	12/23/96 16:15
Lab Cnt NO.	: L039-22	Dilutn Factor :	1
Lab File ID	: I07L019	Matrix :	SOIL
Ext Btch ID	: IPL010S	% Moisture :	10.1
Calib. Ref.	: I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	6720	55.6	1.12
Barium	43.5	2.22	.0445
Beryllium	.394	.334	.0111
Calcium	751	11.1	2.5
Chromium	8.79	7.79	.612
Cobalt	3.45F	7.79	.934
Copper	9.91	6.67	.156
Iron	8910	7.79	.645
Magnesium	325	33.4	6.15
Manganese	118	2.22	.133
Molybdenum	ND	8.9	.679
Potassium	988	556	58.1
Sodium	43.4	33.4	2.22
Vanadium	13.7	8.9	.434
Zinc	16.3	2.22	.189

410 698

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156204	DaTime Analyzd :	12/22/96 14:36
Lab Cnt NO.:	L039-22	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	10.1
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	1.97	.556	.512
Cadmium	ND	.111	.111
Lead	5.7	.556	.156
Thallium	ND	44.5	1.15

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156302	DaTime Analyzd :	12/23/96 16:19
Lab Cnt NO.:	L039-27	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	12.3
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	4000	57	1.15
Barium	39.8	2.28	.0456
Beryllium	.278F	.342	.0114
Calcium	8460	11.4	2.57
Chromium	6.13F	7.98	.627
Cobalt	2.02F	7.98	.958
Copper	7.43	6.84	.16
Iron	5140	7.98	.661
Magnesium	400	34.2	6.31
Manganese	157	2.28	.137
Molybdenum	ND	9.12	.696
Potassium	674	570	59.6
Sodium	25.4F	34.2	2.28
Vanadium	8.91F	9.12	.445
Zinc	22.9	2.28	.194

410 700

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156302	DaTime Analyzd :	12/22/96 14:40
Lab Cnt NO.:	L039-27	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	12.3
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	2.84	.57	.525
Cadmium	.128	.114	.114
Lead	14	.57	.16
Thallium	ND	45.6	1.17

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156402	DaTime Analyzd :	12/23/96 16:22
Lab Cnt NO.:	L039-29	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	16.0
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	8610	59.5	1.2
Barium*	1980	2.38	.0476
Beryllium	.562	.357	.0119
Calcium	111000	11.9	2.68
Chromium	9.79	8.33	.655
Cobalt	5.12F	8.33	1.0
Copper	11.9	7.14	.167
Iron	8900	8.33	.69
Magnesium	2190	35.7	6.58
Manganese	235	2.38	.143
Molybdenum	ND	9.52	.726
Potassium	1220	595	62.2
Sodium	10.8F	35.7	2.38
Vanadium	20.3	9.52	.464
Zinc	37.8	2.38	.202

Analyzed on 12/23/96 17:44

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156402	DaTime Analyzd :	12/22/96 14:44
Lab Cnt NO.:	L039-29	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	16.0
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	3.62	.595	.548
Cadmium	.451	.119	.119
Lead	13.5	.595	.167
Thallium	1.4F	47.6	1.23

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156502	DaTime Analyzd :	12/23/96 16:48
Lab Cnt NO.:	L039-31	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	16.4
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	7180	59.8	1.21
Barium	63.3	2.39	.0478
Beryllium	.52	.359	.012
Calcium	91400	12	2.69
Chromium	7.63F	8.37	.658
Cobalt	4.01F	8.37	1
Copper	8.14	7.18	.167
Iron	7240	8.37	.694
Magnesium	1730	35.9	6.61
Manganese	269	2.39	.144
Molybdenum	ND	9.57	.73
Potassium	1210	598	62.5
Sodium	18.2F	35.9	2.39
Vanadium	16.2	9.57	.467
Zinc	18.9	2.39	.203

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: CR-A156502	DaTime Analyzd :	12/22/96 15:12
Lab Cnt NO.:	L039-31	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	16.4
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	3.43	.598	.55
Cadmium	.3	.12	.12
Lead	6.08	.598	.167
Thallium	2.43F	47.8	1.23

SW3050A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/13/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: MBLK1S	DaTime Analyzd :	12/23/96 15:03
Lab Cnt NO.:	IPL010SB	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	NA
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Aluminum	ND	50	1.01
Barium	ND	2	.04
Beryllium	ND	.3	.01
Calcium	ND	10	2.25
Chromium	ND	7	.55
Cobalt	ND	7	.84
Copper	ND	6	.14
Iron	.789F	7	.58
Magnesium	ND	30	5.53
Manganese	ND	2	.12
Molybdenum	ND	8	.61
Potassium	ND	500	52.2
Sodium	49.9	30	2
Vanadium	ND	8	.39
Zinc	ND	2	.17

410 706

SW3050A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/13/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 11:30
Sample ID	: MBLK1S	DaTime Analyzd :	12/22/96 13:07
Lab Cnt NO.:	IPL010SB	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	SOIL
Ext Btch ID:	IPL010S	% Moisture :	NA
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
Arsenic	ND	.5	.46
Cadmium	ND	.1	.1
Lead	ND	.5	.14
Thallium	ND	40	1.03

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/14/96 09:00
Sample ID	: CR-A156207	DaTime Analyzd :	12/23/96 14:53
Lab Cnt NO.:	L039-25	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	WATER
Ext Btch ID:	IPL014W	% Moisture :	NA
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.0325F	.5	.0122
Barium	ND	.02	.001
Beryllium	ND	.003	.0003
Calcium	ND	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	.00257F	.06	.0008
Iron	.0101F	.07	.0035
Magnesium	ND	.3	.0342
Manganese	.0014F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	.377	.3	.05
Vanadium	ND	.08	.0029
Zinc	ND	.02	.0039

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/14/96 09:00
Sample ID	: CR-A156207	DaTime Analyzd :	12/22/96 12:57
Lab Cnt NO.:	L039-25	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	WATER
Ext Btch ID:	IPL014W	% Moisture :	NA
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016
Thallium	.0133F	.4	.0081

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/14/96 09:00
Sample ID	: CR-A161208	DaTime Analyzd :	12/23/96 14:57
Lab Cnt NO.:	L039-39	Dilutn Factor :	1
Lab File ID:	I07L019	Matrix :	WATER
Ext Btch ID:	IPL014W	% Moisture :	NA
Calib. Ref.:	I07L019	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	ND	.5	.0122
Barium	ND	.02	.001
Beryllium	ND	.003	.0003
Calcium	ND	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	.00114F	.06	.0008
Iron	ND	.07	.0035
Magnesium	ND	.3	.0342
Manganese	ND	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	.419	.3	.05
Vanadium	ND	.08	.0029
Zinc	ND	.02	.0039

410 710

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/14/96 09:00
Sample ID	: CR-A161208	DaTime Analyzd :	12/22/96 13:01
Lab Cnt NO.:	L039-39	Dilutn Factor :	1
Lab File ID:	I31L033	Matrix :	WATER
Ext Btch ID:	IPL014W	% Moisture :	NA
Calib. Ref.:	I31L033	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016
Thallium	.00981F	.4	.0081

410 711

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP, INC.

CARSWELL AFB / 05G47900

ANTIMONY BY GFAA

SDG#: 96L039

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

ANTIMONY BY GFAA

Fourteen (14) soil and two (2) water samples were received on 12/12/96 to be analyzed for Antimony by GFAA method 7041 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD recoveries were out of QC limits for soil matrix. No MS/MSD sample was designated for water matrix.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

410 713

12/16/1996 10:15

LAB CHRONICLE
Metals (Antimony)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154502	L039-02	19.4	IPL010S/12/13/96/11:30	G06L016/12/17/96/	G06L016-59/	26
CR-A154504	L039-04	13.9				27
CR-A154602	L039-06	12.0			G06L016-22/	24
CR-A154604	L039-08	12.7				25
CR-A154704	L039-10	12.6				26
CR-A154802	L039-12	7.1				27
CR-A154804	L039-14	11.0				28
CR-A154902	L039-16	7.8				
CR-A154904	L039-18	11.3				30
CR-A156202	L039-20	10.4				31
CR-A156204	L039-22	10.1				32
CR-A156302	L039-27	12.3				33
CR-A156402	L039-29	16.0	IPL036S/12/26/96/15:30	G06L026/12/30/96/	G06L026-13/	18
CR-A156402MS	L039-29M	16.0				24
CR-A156402DUP	L039-29D	16.0				25
CR-A156502	L039-31	16.4			G06L016-89/	30
MBLK1S	IPL010SB		IPL010S/12/13/96/11:30	G06L016/12/17/96/	G06L016-59/	12
LCS1	15SL					13
LCSD	15SC					14
MBLK2S	IPL036SB		IPL036S/12/26/96/15:30	G06L026/12/30/96/	G06L026-13/	15
LCS2	S2				G06L026-26	16
LCD2	SC				G06L026-13	17

12/16/1996 10:15

LAB CHRONICLE
Metals (Antimony)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156207	L039-25	NA	IPL014WB/12/14/96/09:00	G06L016/12/17/96/22:21	G06L016	83 / 84
CR-A161208	L039-39	NA		:32		92
MBLK1W	IPL014WB			:10		86
LCS	WL			:14		87
LCSD	WC			:17		88

EPA 3050A/7041
ANTIMONY BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : SOIL

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXTI06

SAMPLE ID	CONTROL NO	RESULTS (mg/kg)	DLF	MOIST	PQL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A154502	L039-02	ND	1	19.4	.62	.248	12/17/9621:07	12/13/9611:30	G06L016069	G06L016059	IPL010S
CR-A154504	L039-04	ND	1	13.9	.581	.232	12/17/9621:10	12/13/9611:30	G06L016070	G06L016059	IPL010S
CR-A154602	L039-06	ND	1	12.0	.568	.227	12/17/9621:21	12/13/9611:30	G06L016073	G06L016071	IPL010S
CR-A154604	L039-08	ND	1	12.7	.573	.229	12/17/9621:25	12/13/9611:30	G06L016074	G06L016071	IPL010S
CR-A154704	L039-10	ND	1	12.6	.572	.229	12/17/9621:29	12/13/9611:30	G06L016075	G06L016071	IPL010S
CR-A154802	L039-12	ND	1	7.1	.538	.215	12/17/9621:32	12/13/9611:30	G06L016076	G06L016071	IPL010S
CR-A154804	L039-14	ND	1	11.0	.562	.225	12/17/9621:36	12/13/9611:30	G06L016077	G06L016071	IPL010S
CR-A154902	L039-16	ND	1	7.8	.542	.217	12/17/9621:40	12/13/9611:30	G06L016078	G06L016071	IPL010S
CR-A154904	L039-18	ND	1	11.3	.564	.225	12/17/9621:43	12/13/9611:30	G06L016079	G06L016071	IPL010S
CR-A156202	L039-20	ND	1	10.4	.558	.223	12/17/9621:47	12/13/9611:30	G06L016080	G06L016071	IPL010S
CR-A156204	L039-22	ND	1	10.1	.556	.222	12/17/9621:51	12/13/9611:30	G06L016081	G06L016071	IPL010S
CR-A156302*	L039-27	ND	1	12.3	.57	.228	12/17/9621:55	12/13/9611:30	G06L016082	G06L016071	IPL010S
CR-A156402*	L039-29	ND	1	16.0	.595	.238	12/30/9614:25	12/13/9611:30	G06L026018	G06L026013	IPL036S
CR-A156402MS*	L039-29M	1.49	1	16.0	.595	.238	12/30/9614:56	12/13/9611:30	G06L026024	G06L026013	IPL036S
CR-A156402MSD*	L039-29S	.957	1	16.0	.595	.238	12/30/9615:00	12/13/9611:30	G06L026025	G06L026013	IPL036S
CR-A156402*	L039-29A	4.23	1	16.0	.595	.238	12/30/9614:53	12/13/9611:30	G06L026023	G06L026013	IPL036S
CR-A156502*	L039-31	ND	1	16.4	.598	.239	12/17/9622:06	12/13/9611:30	G06L016085	G06L016083	IPL010S
MBLK1S	IPL010SB	ND	1	NA	.5	.2	12/17/9620:38	12/13/9611:30	G06L016061	G06L016059	IPL010S
LCS1S	IPL011SL	2.16	1	NA	.5	.2	12/17/9620:41	12/13/9611:30	G06L016062	G06L016059	IPL010S
LCD1S	IPL011SC	2.25	1	NA	.5	.2	12/17/9620:45	12/13/9611:30	G06L016063	G06L016059	IPL010S
MBLK2S	IPL036SB	ND	1	NA	.5	.2	12/30/9614:14	12/28/9615:30	G06L026015	G06L026013	IPL036S
LCS2S	IPL036SL	2.02	1	NA	.5	.2	12/30/9615:03	12/28/9615:30	G06L026026	G06L026021	IPL036S
LCD2S	IPL036SC	2.24	1	NA	.5	.2	12/30/9614:21	12/28/9615:30	G06L026017	G06L026013	IPL036S

PQL: Practical Quantitation Limit
* DATE COLLECTED : 12/11/96

EPA 3005A/7041
ANTIMONY BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : WATER

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXT106

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A156207	L039-25	ND	1	NA	.005	.002	12/17/9622:21	12/14/9609:00	G06L016089	G06L016083	IPL014W
CR-A161208*	L039-39	ND	1	NA	.005	.002	12/17/9622:32	12/14/9609:00	G06L016092	G06L016083	IPL014W
MBLK1W	IPL014WB	ND	1	NA	.005	.002	12/17/9622:10	12/14/9609:00	G06L016086	G06L016083	IPL014W
LCS1W	IPL015WL	.0201	1	NA	.005	.002	12/17/9622:14	12/14/9609:00	G06L016087	G06L016083	IPL014W
LCD1W	IPL015WC	.0208	1	NA	.005	.002	12/17/9622:17	12/14/9609:00	G06L016088	G06L016083	IPL014W

PQL: Practical Quantitation Limit
* DATE COLLECTED : 12/11/96

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 7471A
MERCURY BY COLD VAPOR

SDG#: 96L039

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

EPA 7471A
MERCURY BY COLD VAPOR

Fourteen (14) and two (2) water samples were received on 12/12/96 for Mercury analysis in accordance with SW846 method.

1. Holding Time

   Digestion and anaylsis met holding time criteria.

2. Blank

   All preparation blanks were free of contamination.

3. Matrix Spike/Matrix Spike Duplicate

   All MS/MSD recoveries were within QC limit for soil sample. No MS/MSD sample was designated for water sample.

4. Lab Control Sample/Lab Control Sample Duplicate

   All lab control results and RPDs were within the control limits.

5. Sample Analysis

   All sample analyses were done within QC requirements.

EMAX LABORATORIES INC., 630 Maple Ave. Torrance CA 90503 TEL (310) 618-8889 FAX (310) 618-0818

410 710

12/16/1996 10:15

LAB CHRONICLE
Mercury

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154502	L039-02	19.4	Hg LC2CS/12/12/96/18.00	M96LC20/12/23/96/18.46	M96LC20-7/	12
CR-A154504	L039-04	13.9		18.49		13
CR-A154602	L039-06	12.0		18.52		14
CR-A154604	L039-08	12.7		18.55		15
CR-A154704	L039-10	12.6		18.58		16
CR-A154802	L039-12	7.1		19.02		17
CR-A154804	L039-14	11.0		19.14	M96LC2C-19/	21
CR-A154902	L039-16	7.8		19.17		
CR-A154904	L039-18	11.3		19.2C		23
CR-A156202	L039-20	10.4		19.23		2C
CR-A156204	L039-22	10.1		19.27		25
CR-A156302	L039-27	12.3		19.30		2[illegible]
CR-A156402	L039-29	16.0		19.33		27
CR-A156402MS	L039-29M	16.0		19.36		2[illegible]
CR-A156402DUP	L039-29D	16.0		19.39		29
CR-A156502	L039-31	16.4		19.39		3C
MBLKIS	Hg LC2CSB			18.36	M96LC2C-7/	9
LCS	SL			18.40		10
LCSD	SC			18.43		11

12/16/1996 10:15

LAB CHRONICLE
Mercury

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156207	L039-25	NA	Hg LC15W / 12/16/96 / 0900	M96L015 / 12/16/96 / 2043	M96L015-7	13
CR-A161208	L039-39	NA		2046		14
MBLK1W	Hg LC15WB			2031		9
LCS	WL			2034		10
LCSD	WC			2037		11

EPA 7471A
MERCURY BY COLD VAPOR

CLIENT:	JACOBS ENGINEERING GROUP	DATE COLLECTED:	12/10/96
PROJECT:	CARSWELL AFB / 05G47900	DATE RECEIVED:	12/12/96
BATCH NO.:	96L039	DATE EXTRACTED:	12/22/96 18:00
MATRIX:	SOIL	INSTRUMENT ID:	I23
CAL REF:	M96L020-7	PREP BATCH:	HGL020S

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	DL FACTOR	MOIST (%)	RL (mg/kg)	MDL (mg/kg)	ANALYZED DATETIME
CR-A154502	L039-02	ND	1	19.4	.12	.036	12/23/96 18:46
CR-A154504	L039-04	ND	1	13.9	.12	.034	12/23/96 18:49
CR-A154602	L039-06	ND	1	12.0	.11	.033	12/23/96 18:52
CR-A154604	L039-08	ND	1	12.7	.11	.033	12/23/96 18:55
CR-A154704	L039-10	ND	1	12.6	.11	.033	12/23/96 18:58
CR-A154802	L039-12	ND	1	7.1	.11	.031	12/23/96 19:02
CR-A154804	L039-14	ND	1	11.0	.11	.033	12/23/96 19:14
CR-A154902	L039-16	ND	1	7.8	.11	.031	12/23/96 19:17
CR-A154904	L039-18	ND	1	11.3	.11	.033	12/23/96 19:20
CR-A156202	L039-20	ND	1	10.4	.11	.032	12/23/96 19:23
CR-A156204	L039-22	ND	1	10.1	.11	.032	12/23/96 19:27
CR-A156302	L039-27	ND	1	12.3	.11	.033	12/23/96 19:30
CR-A156402	L039-29	ND	1	16.0	.12	.035	12/23/96 19:33
CR-A156402MS	L039-29M	2.29	1	16.0	.12	.035	12/23/96 19:36
CR-A156402MSD	L039-29S	2.30	1	16.0	.12	.035	12/23/96 19:39
CR-A156502	L039-31	.073F	1	16.4	.12	.035	12/23/96 19:42
MBLK1S	HGL020SB	ND	1	NA	.1	.029	12/23/96 18:36
LCS1S	HGL020SL	1.85	1	NA	.1	.029	12/23/96 18:40
LCD1S	HGL020SC	1.83	1	NA	.1	.029	12/23/96 18:43

PQL: Practical Quantitation Limit
AFCEE Ver. 1.1

CAL REF: M96L020-19 for L039-14, 16, 18, 20, 22, 27, 29, 29M, 29S, 31

F: Estimated value

EPA 7470A
MERCURY BY COLD VAPOR

CLIENT:	JACOBS ENGINEERING GROUP	DATE COLLECTED:	12/10/96
PROJECT:	CARSWELL AFB / 05G47900	DATE RECEIVED:	12/12/96
BATCH NO.:	96L039	DATE EXTRACTED:	12/16/96 09:00
MATRIX:	WATER	INSTRUMENT ID:	I23
CAL REF:	M96L015-7	PREP BATCH:	HGL015W

SAMPLE ID	CONTROL NO	RESULT (mg/L)	DILUTION FACTOR	RL (mg/L)	MDL (mg/L)	ANALYZED DATETIME
CR-A156207	L039-25	ND	1	.001	.0001	12/16/96 20:43
CR-A161208	L039-39	ND	1	.001	.0001	12/16/96 20:46
MBLK1W	HGL015WB	ND	1	.001	.0001	12/16/96 20:31
LCS1W	HGL015WL	.00436	1	.001	.0001	12/16/96 20:34
LCD1W	HGL015WC	.00436	1	.001	.0001	12/16/96 20:37

PQL: Practical Quantitation Limit
AFCEE Ver. 1.1

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP, INC.

CARSWELL AFB / 05G47900

NICKEL BY GFAA

SDG#: 96L039

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

NICKEL BY GFAA

Fourteen (14) soil and two (2) water samples were received on 12/12/96 to be analyzed for Nickel by GFAA method 7520 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD recoveries were out of QC limit in soil matrix. No MS/MSD sample was designated for water matrix.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave. Torrance CA 90503 TEL (310) 618-8889 FAX (310) 618-0818

12/16/1996 10:15

LAB CHRONICLE
Metals (Nickel)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	DF	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154502	5 X	L039-02	19.4	GFL006S/12/13/96/11:38	G03L024/12/19/96/21:03	G03L029 - 33	/ -41
CR-A154504		L039-04	13.9		:07		42
CR-A154602		L039-06	12.0		:11		43
CR-A154604		L039-08	12.7		:15		44
CR-A154704		L039-10	12.6		:28	G03L029 - 45	/ -47
CR-A154802		L039-12	7.1		:32		48
CR-A154804		L039-14	11.0		:36		49
CR-A154902		L039-16	7.8		:41		"
CR-A154904		L039-18	11.3		:45		51
CR-A156202		L039-20	10.4		:49		52
CR-A156204		L039-22	10.1		:53		53
CR-A156302		L039-27	12.3		:57		54
CR-A156402	5X	L039-29	16.0		20:24	G03L029-21	/-32
CR-A156402MS	5X	L039-29M	16.0		:54		-39
CR-A156402DUP	5X	L039-29D	16.0		:59		-46
CR-A156502	5X	L039-31	16.4		22:05	G03L029-45	/-5
MBLKIS		GFL006-SB			20:11	G03L029-21	/29
LCS		SL			:16		30
LCSD		SC			22:05	G03L029-45	/-5

LAB CHRONICLE
Metals (Nickel)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156207	L039-25	NA	GFL008W/12/14/96/09.00	G03L025/12/20/96/01:31	G03L025-21	30
CR-A161208	L039-39	NA	↓	↓ 01:35	↓	31
MBLK1W	GFL008WB			G03L025/12/20/96/00:12	G03L025-9	11
LCS	↓	WL	↓	↓ :16	↓	12
LCSD	↓	WC	↓	↓ :20	↓	13

EPA 3050A/7520
NICKEL BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : SOIL

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXTI03

SAMPLE ID	CONTROL NO	RESULTS (mg/kg)	DLF	MOIST	PQL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A154502	L039-02	9.35	5	19.4	6.2	1.24	12/19/9621:03	12/13/9611:30	G03L024041	G03L024033	GFL006S
CR-A154504	L039-04	5.84	5	13.9	5.81	1.16	12/19/9621:07	12/13/9611:30	G03L024042	G03L024033	GFL006S
CR-A154602	L039-06	3.78F	5	12.0	5.68	1.14	12/19/9621:11	12/13/9611:30	G03L024043	G03L024033	GFL006S
CR-A154604	L039-08	5.05F	5	12.7	5.73	1.15	12/19/9621:15	12/13/9611:30	G03L024044	G03L024033	GFL006S
CR-A154704	L039-10	8.48	5	12.6	5.72	1.14	12/19/9621:28	12/13/9611:30	G03L024047	G03L024045	GFL006S
CR-A154802	L039-12	4.24F	5	7.1	5.38	1.08	12/19/9621:32	12/13/9611:30	G03L024048	G03L024045	GFL006S
CR-A154804	L039-14	5.12F	5	11.0	5.62	1.12	12/19/9621:36	12/13/9611:30	G03L024049	G03L024045	GFL006S
CR-A154902	L039-16	3.74F	5	7.8	5.42	1.08	12/19/9621:41	12/13/9611:30	G03L024050	G03L024045	GFL006S
CR-A154904	L039-18	8.43	5	11.3	5.64	1.13	12/19/9621:45	12/13/9611:30	G03L024051	G03L024045	GFL006S
CR-A156202	L039-20	5.21F	5	10.4	5.58	1.12	12/19/9621:49	12/13/9611:30	G03L024052	G03L024045	GFL006S
CR-A156204	L039-22	6.52	5	10.1	5.56	1.11	12/19/9621:53	12/13/9611:30	G03L024053	G03L024045	GFL006S
CR-A156302*	L039-27	4.41F	5	12.3	5.7	1.14	12/19/9621:57	12/13/9611:30	G03L024054	G03L024045	GFL006S
CR-A156402*	L039-29	8.79	5	16.0	5.95	1.19	12/19/9620:24	12/13/9611:30	G03L024032	G03L024021	GFL006S
CR-A156402MS*	L039-29M	8.71	5	16.0	5.95	1.19	12/19/9620:54	12/13/9611:30	G03L024039	G03L024033	GFL006S
CR-A156402MSD*	L039-29S	8.4	5	16.0	5.95	1.19	12/19/9620:59	12/13/9611:30	G03L024040	G03L024033	GFL006S
CR-A156502*	L039-31	7.03	5	16.4	5.98	1.2	12/19/9622:01	12/13/9611:30	G03L024055	G03L024045	GFL006S
MBLK1S	GFL006SB	ND	1	NA	1	.2	12/19/9620:11	12/13/9611:30	G03L024029	G03L024021	GFL006S
LCS1S	GFL006SL	1.22	1	NA	1	.2	12/19/9620:16	12/13/9611:30	G03L024030	G03L024021	GFL006S
LCD1S	GFL006SC	1.08	1	NA	1	.2	12/19/9622:05	12/13/9611:30	G03L024056	G03L024045	GFL006S

* DATE COLLECTED : 12/11/96

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C04

EPA 3020A/7520
NICKEL BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : WATER

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXT103

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A156207	L039-25	ND	1	NA	.01	.002	12/20/9601:31	12/14/9611:30	G03L025030	G03L025021	GFL008W
CR-A161208*	L039-39	ND	1	NA	.01	.002	12/20/9601:35	12/14/9611:30	G03L025031	G03L025021	GFL008W
MBLK1W	GFL008W8	ND	1	NA	.01	.002	12/20/9600:12	12/14/9611:30	G03L025011	G03L025009	GFL008W
LCS1W	GFL008WL	.0112	1	NA	.01	.002	12/20/9600:16	12/14/9611:30	G03L025012	G03L025009	GFL008W
LCD1W	GFL008WC	.00989F	1	NA	.01	.002	12/20/9600:20	12/14/9611:30	G03L025013	G03L025009	GFL008W

* DATE COLLECTED : 12/11/96

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP, INC.

CARSWELL AFB / 05G47900

SELENIUM BY GFAA

SDG#: 96L039

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

SELENIUM BY GFAA

Fourteen (14) soil and two (2) water samples were received on 12/12/96 to be analyzed for Selenium by GFAA method 7740 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   Sample L039-29 was spiked for soil, MSD recovery was out of QC limit. No MS/MSD was designated for water matrix.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits except recovery in LCS for soil (GFL006SL) was slightly higher than QC limit.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave. Torrance CA 90503 TEL (310) 618-8889 FAX (310) 618-0818

410 731

12/16/1996 10:15

LAB CHRONICLE
Metals (Selenium)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154502	L039-02	19.4	GFL006S/12/13/96/11:30	G06L019/12/19/96/17:59	G06L019-10	20
CR-A154504	L039-04	13.9		18:03	↓	21
CR-A154602	L039-06	12.0		:14	G06L019-22	24
CR-A154604	L039-08	12.7		:18		25
CR-A154704	L039-10	12.6		:22		26
CR-A154802	L039-12	7.1		:25		27
CR-A154804	L039-14	11.0		:29		28
CR-A154902	L039-16	7.8		:33		[illegible]
CR-A154904	L039-18	11.3		:37		30
CR-A156202	L039-20	10.4		:41		31
CR-A156204	L039-22	10.1		:44		32
CR-A156302	L039-27	12.3		:48	↓	33
CR-A156402	L039-29	16.0		17:40	G06L019-10	15
CR-A156402MS	L039-29M	16.0		:52		18
CR-A156402DUP	L039-29D	16.0		:55	↓	19
CR-A156502	L039-31	16.4		G06L023/12/23/96/22:11	G06L023-22	35
MBLK1S	GFL006-SB			G06L019/12/19/96/17:29	G06L019-10	1
LCS	↓	SL		↓ :33	↓	13
LCSD	↓	SC		G06L019/12/19/96/:37	↓	1[illegible]

12/16/1996 10:15

LAB CHRONICLE
Metals (Selenium)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156207	L039-25	NA	GFL008W/12/14/96/09:00	G06L023/12/23/96/22:03	G06L023-97	105
CR-A161208	L039-39	NA		:07		106
MBLKIW	GFL008WB			17:01	G06L023-40	42
LCS	WL			:04		43
LCSD	WC			:08		44

EPA 3050A/7740
SELENIUM BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : SOIL

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXT106

SAMPLE ID	CONTROL NO	RESULTS (mg/kg)	DLF	MOIST	PQL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A154502	L039-02	.273F	1	19.4	.62	.136	12/19/9617:59	12/13/9611:30	G06L019030	G06L019020	GFL006S
CR-A154504	L039-04	ND	1	13.9	.581	.128	12/19/9618:03	12/13/9611:30	G06L019031	G06L019020	GFL006S
CR-A154602	L039-06	ND	1	12.0	.568	.125	12/19/9618:14	12/13/9611:30	G06L019034	G06L019032	GFL006S
CR-A154604	L039-08	ND	1	12.7	.573	.126	12/19/9618:18	12/13/9611:30	G06L019035	G06L019032	GFL006S
CR-A154704	L039-10	ND	1	12.6	.572	.126	12/19/9618:22	12/13/9611:30	G06L019036	G06L019032	GFL006S
CR-A154802	L039-12	ND	1	7.1	.538	.118	12/19/9618:25	12/13/9611:30	G06L019037	G06L019032	GFL006S
CR-A154804	L039-14	ND	1	11.0	.562	.124	12/19/9618:29	12/13/9611:30	G06L019038	G06L019032	GFL006S
CR-A154902	L039-16	ND	1	7.8	.542	.119	12/19/9618:33	12/13/9611:30	G06L019039	G06L019032	GFL006S
CR-A154904	L039-18	ND	1	11.3	.564	.124	12/19/9618:37	12/13/9611:30	G06L019040	G06L019032	GFL006S
CR-A156202	L039-20	ND	1	10.4	.558	.123	12/19/9618:41	12/13/9611:30	G06L019041	G06L019032	GFL006S
CR-A156204	L039-22	ND	1	10.1	.556	.122	12/19/9618:44	12/13/9611:30	G06L019042	G06L019032	GFL006S
CR-A156302*	L039-27	ND	1	12.3	.57	.125	12/19/9618:48	12/13/9611:30	G06L019043	G06L019032	GFL006S
CR-A156402*	L039-29	ND	1	16.0	.595	.131	12/19/9617:40	12/13/9611:30	G06L019025	G06L019020	GFL006S
CR-A156402MS*	L039-29M	1.82	1	16.0	.595	.131	12/19/9617:52	12/13/9611:30	G06L019028	G06L019020	GFL006S
CR-A156402MSD*	L039-29S	1.61	1	16.0	.595	.131	12/19/9617:55	12/13/9611:30	G06L019029	G06L019020	GFL006S
CR-A156502*	L039-31	ND	1	16.4	.598	.132	12/23/9622:11	12/13/9611:30	G06L023107	G06L023097	GFL006S
MBLK1S	GFL006SB	ND	1	NA	.5	.11	12/19/9617:29	12/13/9611:30	G06L019022	G06L019020	GFL006S
LCS1S	GFL006SL	2.47	1	NA	.5	.11	12/19/9617:33	12/13/9611:30	G06L019023	G06L019020	GFL006S
LCD1S	GFL006SC	2.36	1	NA	.5	.11	12/19/9617:37	12/13/9611:30	G06L019024	G06L019020	GFL006S

PQL: Practical Quantitation Limit

* DATE COLLECTED : 12/11/96

EPA 3020A/7740
SELENIUM BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : WATER

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXT106

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A156207	L039-25	ND	1	NA	.005	.0011	12/23/9622:03	12/14/9609:00	G06L023105	G06L023097	GFL008W
CR-A161208*	L039-39	ND	1	NA	.005	.0011	12/23/9622:07	12/14/9609:00	G06L023106	G06L023097	GFL008W
MBLK1W	GFL008WB	ND	1	NA	.005	.0011	12/23/9617:01	12/14/9609:00	G06L023042	G06L023040	GFL008W
LCS1W	GFL008WL	.0196	1	NA	.005	.0011	12/23/9617:04	12/14/9609:00	G06L023043	G06L023040	GFL008W
LCD1W	GFL008WC	.0189	1	NA	.005	.0011	12/23/9617:08	12/14/9609:00	G06L023044	G06L023040	GFL008W

PQL: Practical Quantitation Limit

* DATE COLLECTED : 12/11/96

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP, INC.

CARSWELL AFB / 05G47900

SILVER BY GFAA

SDG#: 96L039

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP, INC.

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

SILVER BY GFAA

Fourteen (14) soil and two (2) water samples were received on 12/12/96 to be analyzed for Silver by GFAA method 7760 in accordance with USEPA SW846 (1994,9).

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD recoveries were out of QC limit for soil matrix due to matrix effect. No MS/MSD was designated for water matrix.

4. **Lab Control Sample/Lab Control Sample Duplicate**

   All lab control results were within the QC limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria.

6. **Sample Analyses**

   Sample analyses met QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

12/16/1996 10:15

LAB CHRONICLE
Metals (Silver)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154502	L039-02	19.4	GFL006S/12/13/96/11.30	G032030/12/27/96/16.06	-10	20
CR-A154504	L039-04	13.9			:09	21
CR-A154602	L039-06	12.0			18:30	-22/24
CR-A154604	L039-08	12.7			:33	25
CR-A154704	L039-10	12.6			:36	26
CR-A154802	L039-12	7.1			:39	27
CR-A154804	L039-14	11.0			:42	28
CR-A154902	L039-16	7.8			:46	
CR-A154904	L039-18	11.3			:49	30
CR-A156202	L039-20	10.4			:52	31
CR-A156204	L039-22	10.1			:55	32
CR-A156302	L039-27	12.3			:59	33
CR-A156402	L039-29	16.0			15:50	-10/15
CR-A156402MS	L039-29M	16.0			:59	18
CR-A156402DUP	L039-29D	16.0			16:02	19
CR-A156502	L039-31	16.4			19:09	-66/68
MBLK1S	GFL006-SB				15:40	-10/12
LCS	SL				:44	13
LCSD	SC				:47	14

LAB CHRONICLE
Metals (Silver)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156207	L039-25	NA	GFL008W/12/14/96/09.00	G06L022/12/20/96/21:04	G06L022-33	-42
CR-A161208	L039-39	NA	↓	:08	↓	-43
MBLK1W	GFL008WB		↓	20:04	G06L022-21	-23
LCS	↓	WL	↓	:07	↓	24
LCSD	↓	WC	↓	:16	↓	25

EPA 3050A/7760
SILVER BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : SOIL

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXT103

SAMPLE ID	CONTROL NO	RESULTS (mg/kg)	DLF	MOIST	PQL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A154502	L039-02	.0782F	1	19.4	.124	.0248	12/26/9616:06	12/13/9611:30	G03L030020	G03L030010	GFL006S
CR-A154504	L039-04	.0325F	1	13.9	.116	.0232	12/26/9616:09	12/13/9611:30	G03L030021	G03L030010	GFL006S
CR-A154602	L039-06	.0261F	1	12.0	.114	.0227	12/26/9616:18	12/13/9611:30	G03L030024	G03L030022	GFL006S
CR-A154604	L039-08	ND	1	12.7	.115	.0229	12/26/9616:21	12/13/9611:30	G03L030025	G03L030022	GFL006S
CR-A154704	L039-10	ND	1	12.6	.114	.0229	12/26/9616:25	12/13/9611:30	G03L030026	G03L030022	GFL006S
CR-A154802	L039-12	.0366F	1	7.1	.108	.0215	12/26/9616:28	12/13/9611:30	G03L030027	G03L030022	GFL006S
CR-A154804	L039-14	.027F	1	11.0	.112	.0225	12/26/9616:31	12/13/9611:30	G03L030028	G03L030022	GFL006S
CR-A154902	L039-16	.0336F	1	7.8	.108	.0217	12/26/9616:34	12/13/9611:30	G03L030029	G03L030022	GFL006S
CR-A154904	L039-18	ND	1	11.3	.113	.0225	12/26/9616:38	12/13/9611:30	G03L030030	G03L030022	GFL006S
CR-A156202	L039-20	.0301F	1	10.4	.112	.0223	12/26/9616:41	12/13/9611:30	G03L030031	G03L030022	GFL006S
CR-A156204	L039-22	ND	1	10.1	.111	.0222	12/26/9616:44	12/13/9611:30	G03L030032	G03L030022	GFL006S
CR-A156302*	L039-27	.0912F	1	12.3	.114	.0228	12/26/9616:47	12/13/9611:30	G03L030033	G03L030022	GFL006S
CR-A156402*	L039-29	.213	1	16.0	.119	.0238	12/26/9615:50	12/13/9611:30	G03L030015	G03L030010	GFL006S
CR-A156402MS*	L039-29M	.369	1	16.0	.119	.0238	12/26/9615:59	12/13/9611:30	G03L030018	G03L030010	GFL006S
CR-A156402MSD*	L039-29S	.339	1	16.0	.119	.0238	12/26/9616:02	12/13/9611:30	G03L030019	G03L030010	GFL006S
CR-A156502*	L039-31	.0526F	1	16.4	.12	.0239	12/26/9619:09	12/13/9611:30	G03L030068	G03L030066	GFL006S
MBLK1S	GFL006SB	ND	1	NA	.1	.02	12/26/9615:40	12/13/9611:30	G03L030012	G03L030010	GFL006S
LCS1S	GFL006SL	.227	1	NA	.1	.02	12/26/9615:44	12/13/9611:30	G03L030013	G03L030010	GFL006S
LCD1S	GFL006SC	.228	1	NA	.1	.02	12/26/9615:47	12/13/9611:30	G03L030014	G03L030010	GFL006S

PQL: Practical Quantitation Limit

* DATE COLLECTED : 12/11/96

410 739

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EPA 3020A/7760
SILVER BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L039
Matrix : WATER

Date Collcted : 12/10/96
DaTime Received: 12/12/96
Instrument ID : EMAXTI06

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A156207	L039-25	ND	1	NA	.001	.0002	12/20/9621:04	12/14/9611:30	G06L022042	G06L022033	GFL008W
CR-A161208*	L039-39	ND	1	NA	.001	.0002	12/20/9621:08	12/14/9611:30	G06L022043	G06L022033	GFL008W
MBLK1W	GFL008WB	ND	1	NA	.001	.0002	12/20/9620:04	12/14/9611:30	G06L022023	G06L022021	GFL008W
LCS1W	GFL008WL	.00214	1	NA	.001	.0002	12/20/9620:07	12/14/9611:30	G06L022024	G06L022021	GFL008W
LCD1W	GFL008WC	.00222	1	NA	.001	.0002	12/20/9620:10	12/14/9611:30	G06L022025	G06L022021	GFL008W

PQL: Practical Quantitation Limit

* DATE COLLECTED : 12/11/96

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

SDG#: 96L039

DECEMBER 31, 1996

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Fifteen (15) soil and three (3) water samples were received on 12/12/96 to be analyzed for volatile organics by EPA Method 5030A/8240B in accordance with SW846.

1. Holding Time

   Analytical holding time was met.

2. Surrogate Recovery

   All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

   All recoveries were within QC limit except vinyl acetate.

4. Laboratory Control Sample

   All recoveries were within QC limits except vinyl acetate in VOL2402C.

5. Method Blank

   Method blanks were free of contamination except trace amount of methylene chloride in VOL2402B.

6. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval. All QC requirements were met.

7. Sample Analysis

   All sample analyses were performed within QC requirements.

EMAX LABORATORIES INC. 630 Maple Ave. Torrance, CA 90503 TEL (310) 618-8889 FAX (310) 618-0818

410 743

12/16/1996 10:15

LAB CHRONICLE
EPA 8240

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A154501	L039-01	12.6	12/20	LP438		
CR-A154503	L039-03	14.9	12/19	LP414		
CR-A154601	L039-05	6.6		416		
CR-A154603	L039-07	19.7		417		
CR-A154703	L039-09	12.3		418		
CR-A154801	L039-11	5.9		419		
CR-A154803	L039-13	7.6		420		
CR-A154901	L039-15	6.1		424		
CR-A154903	L039-17	9.3		425		
CR-A156201	L039-19	8.9		426		
CR-A156203	L039-21	10.9		427		
CR-A156301	L039-26	30.3		428		
CR-A156401	L039-28	15.4		421		
CR-A156401MS	L039-28M	15.4		422		
CR-A156401MSD	L039-28S	15.4		423		
CR-A156501	L039-30	28.1		429		
CR-A161203	L039-34	18.1	12/20	LP437		
HBLK15	VOL2402B		12/19	LP410		
LCS15	VOL2402L			LP411		
LCD15	VOL2402C			LP412		
HBLK25	VOL2502B		12/20	LP434		
LCS25	VOL2502L			LP435		
LCD25	VOL2502C			LP436		

12/16/1996 10:15

LAB CHRONICLE
EPA 8240

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A156205	L039-23	NA	12/18	LP405		
CR-A161205	L039-36	NA	↓	406		
CR-A161206	L039-37	NA	↓	407		
MBLK1W	VOL2302B		↓	386		
BLCSW1	VOL2302L		↓	389		
LCSW1	VOL2302C		↓	391		

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/20/96 11:04
Sample ID	: CR-A154501	DaTime Analyzd :	12/20/96 11:04
Lab Cnt NO.	: L039-01	Dilutn Factor :	1
Lab File ID	: RLP438	Matrix :	SOIL
Ext Btch ID	: VOL2502	% Moisture :	12.6
Calib. Ref.	: RLP433	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.72	.61
1,1,2,2-Tetrachloroethane	ND	5.72	.95
1,1,2-Trichloroethane	ND	5.72	.967
1,1-Dichloroethane	ND	5.72	.485
1,1-Dichloroethene	ND	5.72	.597
1,2,3-Trichloropropane	ND	57.2	1.74
1,2-Dichloroethane	ND	5.72	.34
1,2-Dichloropropane	ND	5.72	1.1
2-Butanone	ND	114	2.59
2-Chloroethyl Vinyl Ether	ND	11.4	1.14
2-Hexanone	ND	57.2	1.51
4-Methyl-2-Pentanone	ND	57.2	1.79
Acetone	ND	114	5.13
Benzene	ND	5.72	.465
Bromodichloromethane	ND	5.72	[illegible]
Bromoform	ND	5.72	[illegible]
Bromomethane	ND	11.4	1.4
Carbon Disulfide	ND	5.72	.563
Carbon Tetrachloride	ND	5.72	.451
Chlorobenzene	ND	5.72	.501
Chloroethane	ND	11.4	1.05
Chloroform	ND	5.72	.519
Chloromethane	ND	11.4	1.07
Cis-1,2-Dichloroethene	ND	5.72	.534
Cis-1,3-Dichloropropene	ND	5.72	.458
Dibromochloromethane	ND	5.72	.442
Ethylbenzene	ND	5.72	.618
Methylene Chloride	6.49	5.72	2.85
m/p-Xylenes	ND	11.4	.789
o-Xylene	ND	5.72	.436
Styrene	ND	5.72	.546
Tetrachloroethylene	ND	5.72	.358
Toluene	ND	5.72	.462
Trans-1,2-Dichloroethene	ND	5.72	.436
Trans-1,3-Dichloropropene	ND	5.72	.399
Trichloroethene	ND	5.72	.538
Vinyl Acetate	ND	57.2	.935
Vinyl Chloride	ND	11.4	1.45

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	100	79-118
Bromofluorobenzene	91	86-115
Toluene-d8	109	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 12:15
Sample ID	: CR-A154503	DaTime Analyzd :	12/19/96 12:15
Lab Cnt NO.:	L039-03 ✓	Dilutn Factor :	1
Lab File ID:	RLP414 ✓	Matrix :	SOIL
Ext Btch ID:	VOL2402	% Moisture :	14.9
Calib. Ref.:	RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.88	.626
1,1,2,2-Tetrachloroethane	ND	5.88	.975
1,1,2-Trichloroethane	ND	5.88	.993
1,1-Dichloroethane	ND	5.88	.498
1,1-Dichloroethene	ND	5.88	.613
1,2,3-Trichloropropane	ND	58.8	1.79
1,2-Dichloroethane	ND	5.88	.349
1,2-Dichloropropane	ND	5.88	1.13
2-Butanone	ND	118	2.66
2-Chloroethyl Vinyl Ether	ND	11.8	1.17
2-Hexanone	ND	58.8	1.55
4-Methyl-2-Pentanone	ND	58.8	1.83
Acetone	ND	118	5.27
Benzene	ND	5.88	.477
omodichloromethane	ND	5.88	.451
omoform	ND	5.88	.673
Bromomethane	ND	11.8	1.44
Carbon Disulfide	ND	5.88	.578
Carbon Tetrachloride	ND	5.88	.463
Chlorobenzene	ND	5.88	.515
Chloroethane	ND	11.8	1.08
Chloroform	ND	5.88	.533
Chloromethane	ND	11.8	1.1
Cis-1,2-Dichloroethene	ND	5.88	.549
Cis-1,3-Dichloropropene	ND	5.88	.47
Dibromochloromethane	ND	5.88	.454
Ethylbenzene	ND	5.88	.635
Methylene Chloride	ND	5.88	2.93
m/p-Xylenes	ND	11.8	.811
o-Xylene	ND	5.88	.448
Styrene	ND	5.88	.561
Tetrachloroethylene	ND	5.88	.368
Toluene	ND	5.88	.475
Trans-1,2-Dichloroethene	ND	5.88	.448
Trans-1,3-Dichloropropene	ND	5.88	.41
Trichloroethene	ND	5.88	.552
Vinyl Acetate	ND	58.8	.96
Vinyl Chloride	ND	11.8	1.48

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	101	79-118
omofluorobenzene	97	86-115
luene-d8	101	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 13:15
Sample ID	: CR-A154601	DaTime Analyzd :	12/19/96 13:15
Lab Cnt NO.	: L039-05	Dilutn Factor :	1
Lab File ID	: RLP416	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	6.6
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.35	.571
1,1,2,2-Tetrachloroethane	ND	5.35	.889
1,1,2-Trichloroethane	ND	5.35	.905
1,1-Dichloroethane	ND	5.35	.454
1,1-Dichloroethene	ND	5.35	.559
1,2,3-Trichloropropane	ND	53.5	1.63
1,2-Dichloroethane	ND	5.35	.318
1,2-Dichloropropane	ND	5.35	1.03
2-Butanone	ND	107	2.42
2-Chloroethyl Vinyl Ether	ND	10.7	1.06
2-Hexanone	ND	53.5	1.42
4-Methyl-2-Pentanone	ND	53.5	1.67
Acetone	ND	107	4.8
Benzene	ND	5.35	.435
Bromodichloromethane	ND	5.35	.4
Bromoform	ND	5.35	.6
Bromomethane	ND	10.7	1.31
Carbon Disulfide	ND	5.35	.527
Carbon Tetrachloride	ND	5.35	.422
Chlorobenzene	ND	5.35	.469
Chloroethane	ND	10.7	.984
Chloroform	ND	5.35	.486
Chloromethane	ND	10.7	.999
Cis-1,2-Dichloroethene	ND	5.35	.5
Cis-1,3-Dichloropropene	ND	5.35	.428
Dibromochloromethane	ND	5.35	.413
Ethylbenzene	ND	5.35	.578
Methylene Chloride	ND	5.35	2.67
m/p-Xylenes	ND	10.7	.739
o-Xylene	ND	5.35	.408
Styrene	ND	5.35	.511
Tetrachloroethylene	ND	5.35	.335
Toluene	ND	5.35	.433
Trans-1,2-Dichloroethene	ND	5.35	.408
Trans-1,3-Dichloropropene	ND	5.35	.374
Trichloroethene	ND	5.35	.503
Vinyl Acetate	ND	53.5	.875
Vinyl Chloride	ND	10.7	1.35

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	104	79-118
Bromofluorobenzene	93	86-115
Toluene-d8	106	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 13:43
Sample ID	: CR-A154603	DaTime Analyzd :	12/19/96 13:43
Lab Cnt NO.	: L039-07	Dilutn Factor :	1
Lab File ID	: RLP417	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	19.7
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	6.23	.664
1,1,2,2-Tetrachloroethane	ND	6.23	1.03
1,1,2-Trichloroethane	ND	6.23	1.05
1,1-Dichloroethane	ND	6.23	.528
1,1-Dichloroethene	ND	6.23	.65
1,2,3-Trichloropropane	ND	62.3	1.9
1,2-Dichloroethane	ND	6.23	.37
1,2-Dichloropropane	ND	6.23	1.2
2-Butanone	ND	125	2.82
2-Chloroethyl Vinyl Ether	ND	12.5	1.24
2-Hexanone	ND	62.3	1.65
4-Methyl-2-Pentanone	ND	62.3	1.94
Acetone	ND	125	5.58
Benzene	ND	6.23	.506
omodichloromethane	ND	6.23	.478
omoform	ND	6.23	.714
Bromomethane	ND	12.5	1.53
Carbon Disulfide	ND	6.23	.613
Carbon Tetrachloride	ND	6.23	.491
Chlorobenzene	ND	6.23	.545
Chloroethane	ND	12.5	1.14
Chloroform	ND	6.23	.565
Chloromethane	ND	12.5	1.16
Cis-1,2-Dichloroethene	ND	6.23	.582
Cis-1,3-Dichloropropene	ND	6.23	.498
Dibromochloromethane	ND	6.23	.481
Ethylbenzene	ND	6.23	.672
Methylene Chloride	ND	6.23	3.1
m/p-Xylenes	ND	12.5	.859
o-Xylene	ND	6.23	.474
Styrene	ND	6.23	.594
Tetrachloroethylene	ND	6.23	.39
Toluene	ND	6.23	.503
Trans-1,2-Dichloroethene	ND	6.23	.474
Trans-1,3-Dichloropropene	ND	6.23	.435
Trichloroethene	ND	6.23	.585
Vinyl Acetate	ND	62.3	1.02
Vinyl Chloride	ND	12.5	1.57

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	103	79-118
omofluorobenzene	97	86-115
luene-d8	101	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 14:13
Sample ID	: CR-A154703	DaTime Analyzd :	12/19/96 14:13
Lab Cnt NO.	: L039-09	Dilutn Factor :	1
Lab File ID	: RLP418	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	12.3
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.7	.608
1,1,2,2-Tetrachloroethane	ND	5.7	.946
1,1,2-Trichloroethane	ND	5.7	.964
1,1-Dichloroethane	ND	5.7	.483
1,1-Dichloroethene	ND	5.7	.595
1,2,3-Trichloropropane	ND	57	1.74
1,2-Dichloroethane	ND	5.7	.339
1,2-Dichloropropane	ND	5.7	1.09
2-Butanone	ND	114	2.58
2-Chloroethyl Vinyl Ether	ND	11.4	1.13
2-Hexanone	ND	57	1.51
4-Methyl-2-Pentanone	ND	57	1.78
Acetone	ND	114	5.11
Benzene	ND	5.7	.463
Bromodichloromethane	ND	5.7	.4
Bromoform	ND	5.7	.6
Bromomethane	ND	11.4	1.4
Carbon Disulfide	ND	5.7	.561
Carbon Tetrachloride	ND	5.7	.449
Chlorobenzene	ND	5.7	.499
Chloroethane	ND	11.4	1.05
Chloroform	ND	5.7	.518
Chloromethane	ND	11.4	1.06
Cis-1,2-Dichloroethene	ND	5.7	.532
Cis-1,3-Dichloropropene	ND	5.7	.456
Dibromochloromethane	ND	5.7	.44
Ethylbenzene	ND	5.7	.616
Methylene Chloride	ND	5.7	2.84
m/p-Xylenes	ND	11.4	.787
o-Xylene	ND	5.7	.434
Styrene	ND	5.7	.544
Tetrachloroethylene	ND	5.7	.357
Toluene	ND	5.7	.461
Trans-1,2-Dichloroethene	ND	5.7	.434
Trans-1,3-Dichloropropene	ND	5.7	.398
Trichloroethene	ND	5.7	.536
Vinyl Acetate	ND	57	.932
Vinyl Chloride	ND	11.4	1.44

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	101	79-118
Bromofluorobenzene	97	86-115
Toluene-d8	101	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

410 750

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 14:42
Sample ID	: CR-A154801	DaTime Analyzd :	12/19/96 14:42
Lab Cnt NO.	: L039-11	Dilutn Factor :	1
Lab File ID	: RLP419	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	5.9
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.31	.566
1,1,2,2-Tetrachloroethane	ND	5.31	.882
1,1,2-Trichloroethane	ND	5.31	.898
1,1-Dichloroethane	ND	5.31	.451
1,1-Dichloroethene	ND	5.31	.555
1,2,3-Trichloropropane	ND	53.1	1.62
1,2-Dichloroethane	ND	5.31	.316
1,2-Dichloropropane	ND	5.31	1.02
2-Butanone	ND	106	2.4
2-Chloroethyl Vinyl Ether	ND	10.6	1.06
2-Hexanone	ND	53.1	1.4
4-Methyl-2-Pentanone	ND	53.1	1.66
Acetone	ND	106	4.76
Benzene	ND	5.31	.431
omodichloromethane	ND	5.31	.408
omoform	ND	5.31	.609
Bromomethane	ND	10.6	1.3
Carbon Disulfide	ND	5.31	.523
Carbon Tetrachloride	ND	5.31	.419
Chlorobenzene	ND	5.31	.465
Chloroethane	ND	10.6	.977
Chloroform	ND	5.31	.482
Chloromethane	ND	10.6	.991
Cis-1,2-Dichloroethene	ND	5.31	.496
Cis-1,3-Dichloropropene	ND	5.31	.425
Dibromochloromethane	ND	5.31	.41
Ethylbenzene	ND	5.31	.574
Methylene Chloride	ND	5.31	2.65
m/p-Xylenes	ND	10.6	.733
o-Xylene	ND	5.31	.405
Styrene	ND	5.31	.507
Tetrachloroethylene	ND	5.31	.333
Toluene	ND	5.31	.429
Trans-1,2-Dichloroethene	ND	5.31	.405
Trans-1,3-Dichloropropene	ND	5.31	.371
Trichloroethene	ND	5.31	.499
Vinyl Acetate	ND	53.1	.868
Vinyl Chloride	ND	10.6	1.34

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	101	79-118
omofluorobenzene	94	86-115
luene-d8	101	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

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SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 15:13
Sample ID	: CR-A154803	DaTime Analyzd :	12/19/96 15:13
Lab Cnt NO.	: L039-13	Dilutn Factor :	1
Lab File ID	: RLP420	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	7.6
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.41	.577
1,1,2,2-Tetrachloroethane	ND	5.41	.898
1,1,2-Trichloroethane	ND	5.41	.915
1,1-Dichloroethane	ND	5.41	.459
1,1-Dichloroethene	ND	5.41	.565
1,2,3-Trichloropropane	ND	54.1	1.65
1,2-Dichloroethane	ND	5.41	.321
1,2-Dichloropropane	ND	5.41	1.04
2-Butanone	ND	108	2.45
2-Chloroethyl Vinyl Ether	ND	10.8	1.08
2-Hexanone	ND	54.1	1.43
4-Methyl-2-Pentanone	ND	54.1	1.69
Acetone	ND	108	4.85
Benzene	ND	5.41	.439
Bromodichloromethane	ND	5.41	.4
Bromoform	ND	5.41	[illegible]
Bromomethane	ND	10.8	1.33
Carbon Disulfide	ND	5.41	.532
Carbon Tetrachloride	ND	5.41	.426
Chlorobenzene	ND	5.41	.474
Chloroethane	ND	10.8	.995
Chloroform	ND	5.41	.491
Chloromethane	ND	10.8	1.01
Cis-1,2-Dichloroethene	ND	5.41	.505
Cis-1,3-Dichloropropene	ND	5.41	.433
Dibromochloromethane	ND	5.41	.418
Ethylbenzene	ND	5.41	.584
Methylene Chloride	ND	5.41	2.69
m/p-Xylenes	ND	10.8	.747
o-Xylene	ND	5.41	.412
Styrene	ND	5.41	.516
Tetrachloroethylene	ND	5.41	.339
Toluene	ND	5.41	.437
Trans-1,2-Dichloroethene	ND	5.41	.412
Trans-1,3-Dichloropropene	ND	5.41	.378
Trichloroethene	ND	5.41	.509
Vinyl Acetate	ND	54.1	.884
Vinyl Chloride	ND	10.8	1.37

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	100	79-118
Bromofluorobenzene	98	86-115
Toluene-d8	104	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 17:07
Sample ID	: CR-A154901	DaTime Analyzd :	12/19/96 17:07
Lab Cnt NO.	: L039-15	Dilutn Factor :	1
Lab File ID	: RLP424	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	6.1
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.32	.568
1,1,2,2-Tetrachloroethane	ND	5.32	.884
1,1,2-Trichloroethane	ND	5.32	.9
1,1-Dichloroethane	ND	5.32	.452
1,1-Dichloroethene	ND	5.32	.556
1,2,3-Trichloropropane	ND	53.2	1.62
1,2-Dichloroethane	ND	5.32	.316
1,2-Dichloropropane	ND	5.32	1.02
2-Butanone	ND	106	2.41
2-Chloroethyl Vinyl Ether	ND	10.6	1.06
2-Hexanone	ND	53.2	1.41
4-Methyl-2-Pentanone	ND	53.2	1.66
Acetone	ND	106	4.77
Benzene	ND	5.32	.432
Bromodichloromethane	ND	5.32	.409
Bromoform	ND	5.32	.61
Bromomethane	ND	10.6	1.31
Carbon Disulfide	ND	5.32	.524
Carbon Tetrachloride	ND	5.32	.42
Chlorobenzene	ND	5.32	.466
Chloroethane	ND	10.6	.979
Chloroform	ND	5.32	.483
Chloromethane	ND	10.6	.994
Cis-1,2-Dichloroethene	ND	5.32	.497
Cis-1,3-Dichloropropene	ND	5.32	.426
Dibromochloromethane	ND	5.32	.411
Ethylbenzene	ND	5.32	.575
Methylene Chloride	ND	5.32	2.65
m/p-Xylenes	ND	10.6	.735
o-Xylene	ND	5.32	.406
Styrene	ND	5.32	.508
Tetrachloroethylene	ND	5.32	.333
Toluene	ND	5.32	.43
Trans-1,2-Dichloroethene	ND	5.32	.406
Trans-1,3-Dichloropropene	ND	5.32	.372
Trichloroethene	ND	5.32	.501
Vinyl Acetate	ND	53.2	.87
Vinyl Chloride	ND	10.6	1.35

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	98	79-118
Bromofluorobenzene	96	86-115
Toluene-d8	102	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 17:34
Sample ID	: CR-A154903	DaTime Analyzd :	12/19/96 17:34
Lab Cnt NO.	: L039-17	Dilutn Factor :	1
Lab File ID	: RLP425	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	9.3
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.51	.588
1,1,2,2-Tetrachloroethane	ND	5.51	.915
1,1,2-Trichloroethane	ND	5.51	.932
1,1-Dichloroethane	ND	5.51	.467
1,1-Dichloroethene	ND	5.51	.576
1,2,3-Trichloropropane	ND	55.1	1.68
1,2-Dichloroethane	ND	5.51	.327
1,2-Dichloropropane	ND	5.51	1.06
2-Butanone	ND	110	2.49
2-Chloroethyl Vinyl Ether	ND	11	1.1
2-Hexanone	ND	55.1	1.46
4-Methyl-2-Pentanone	ND	55.1	1.72
Acetone	ND	110	4.94
Benzene	ND	5.51	.448
Bromodichloromethane	ND	5.51	.4
Bromoform	ND	5.51	.6
Bromomethane	ND	11	1.35
Carbon Disulfide	ND	5.51	.542
Carbon Tetrachloride	ND	5.51	.434
Chlorobenzene	ND	5.51	.483
Chloroethane	ND	11	1.01
Chloroform	ND	5.51	.501
Chloromethane	ND	11	1.03
Cis-1,2-Dichloroethene	ND	5.51	.515
Cis-1,3-Dichloropropene	ND	5.51	.441
Dibromochloromethane	ND	5.51	.426
Ethylbenzene	ND	5.51	.595
Methylene Chloride	ND	5.51	2.75
m/p-Xylenes	ND	11	.761
o-Xylene	ND	5.51	.42
Styrene	ND	5.51	.526
Tetrachloroethylene	ND	5.51	.345
Toluene	ND	5.51	.445
Trans-1,2-Dichloroethene	ND	5.51	.42
Trans-1,3-Dichloropropene	ND	5.51	.385
Trichloroethene	ND	5.51	.518
Vinyl Acetate	ND	55.1	.901
Vinyl Chloride	ND	11	1.39

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	104	79-118
Bromofluorobenzene	94	86-115
Toluene-d8	98	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
roject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 18:02
Sample ID	: CR-A156201	DaTime Analyzd :	12/19/96 18:02
Lab Cnt NO.	: L039-19	Dilutn Factor :	1
Lab File ID	: RLP426	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	8.9
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.49	.585
1,1,2,2-Tetrachloroethane	ND	5.49	.911
1,1,2-Trichloroethane	ND	5.49	.928
1,1-Dichloroethane	ND	5.49	.465
1,1-Dichloroethene	ND	5.49	.573
1,2,3-Trichloropropane	ND	54.9	1.67
1,2-Dichloroethane	ND	5.49	.326
1,2-Dichloropropane	ND	5.49	1.05
2-Butanone	ND	110	2.48
2-Chloroethyl Vinyl Ether	ND	11	1.09
2-Hexanone	ND	54.9	1.45
4-Methyl-2-Pentanone	ND	54.9	1.71
Acetone	ND	110	4.92
Benzene	ND	5.49	.446
romodichloromethane	ND	5.49	.422
omoform	ND	5.49	.629
Bromomethane	ND	11	1.35
Carbon Disulfide	ND	5.49	.54
Carbon Tetrachloride	ND	5.49	.432
Chlorobenzene	ND	5.49	.481
Chloroethane	ND	11	1.01
Chloroform	ND	5.49	.498
Chloromethane	ND	11	1.02
Cis-1,2-Dichloroethene	ND	5.49	.513
Cis-1,3-Dichloropropene	ND	5.49	.439
Dibromochloromethane	ND	5.49	.424
Ethylbenzene	ND	5.49	.593
Methylene Chloride	ND	5.49	2.73
m/p-Xylenes	ND	11	.757
o-Xylene	ND	5.49	.418
Styrene	ND	5.49	.524
Tetrachloroethylene	ND	5.49	.344
Toluene	ND	5.49	.443
Trans-1,2-Dichloroethene	ND	5.49	.418
Trans-1,3-Dichloropropene	ND	5.49	.383
Trichloroethene	ND	5.49	.516
Vinyl Acetate	ND	54.9	.897
Vinyl Chloride	ND	11	1.39

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	100	79-118
omofluorobenzene	94	86-115
oluene-d8	109	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

410 755

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/12/96
Batch No.	: 96L039	DaTime Extrctd	: 12/19/96 18:29
Sample ID	: CR-A156203	DaTime Analyzd	: 12/19/96 18:29
Lab Cnt NO.	: L039-21	Dilutn Factor	: 1
Lab File ID	: RLP427	Matrix	: SOIL
Ext Btch ID	: VOL2402	% Moisture	: 10.9
Calib. Ref.	: RLP409	Instrument ID	: MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.61	.598
1,1,2,2-Tetrachloroethane	ND	5.61	.932
1,1,2-Trichloroethane	ND	5.61	.948
1,1-Dichloroethane	ND	5.61	.476
1,1-Dichloroethene	ND	5.61	.586
1,2,3-Trichloropropane	ND	56.1	1.71
1,2-Dichloroethane	ND	5.61	.333
1,2-Dichloropropane	ND	5.61	1.08
2-Butanone	ND	112	2.54
2-Chloroethyl Vinyl Ether	ND	11.2	1.12
2-Hexanone	ND	56.1	1.48
4-Methyl-2-Pentanone	ND	56.1	1.75
Acetone	ND	112	5.03
Benzene	ND	5.61	.456
Bromodichloromethane	ND	5.61	.4[illegible]
Bromoform	ND	5.61	.[illegible]
Bromomethane	ND	11.2	1.3[illegible]
Carbon Disulfide	ND	5.61	.552
Carbon Tetrachloride	ND	5.61	.442
Chlorobenzene	ND	5.61	.492
Chloroethane	ND	11.2	1.03
Chloroform	ND	5.61	.51
Chloromethane	ND	11.2	1.05
Cis-1,2-Dichloroethene	ND	5.61	.524
Cis-1,3-Dichloropropene	ND	5.61	.449
Dibromochloromethane	ND	5.61	.433
Ethylbenzene	ND	5.61	.606
Methylene Chloride	ND	5.61	2.79
m/p-Xylenes	ND	11.2	.774
o-Xylene	ND	5.61	.428
Styrene	ND	5.61	.535
Tetrachloroethylene	ND	5.61	.351
Toluene	ND	5.61	.453
Trans-1,2-Dichloroethene	ND	5.61	.428
Trans-1,3-Dichloropropene	ND	5.61	.392
Trichloroethene	ND	5.61	.527
Vinyl Acetate	ND	56.1	.917
Vinyl Chloride	ND	11.2	1.42

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	100	79-118
Bromofluorobenzene	93	86-115
Toluene-d8	101	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 18:57
Sample ID	: CR-A156301	DaTime Analyzd :	12/19/96 18:57
Lab Cnt NO.	: L039-26	Dilutn Factor :	1
Lab File ID	: RLP428	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	30.3
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	7.17	.765
1,1,2,2-Tetrachloroethane	ND	7.17	1.19
1,1,2-Trichloroethane	ND	7.17	1.21
1,1-Dichloroethane	ND	7.17	.608
1,1-Dichloroethene	ND	7.17	.749
1,2,3-Trichloropropane	ND	71.7	2.18
1,2-Dichloroethane	ND	7.17	.426
1,2-Dichloropropane	ND	7.17	1.38
2-Butanone	ND	143	3.25
2-Chloroethyl Vinyl Ether	ND	14.3	1.43
2-Hexanone	ND	71.7	1.9
4-Methyl-2-Pentanone	ND	71.7	2.24
Acetone	ND	143	6.43
Benzene	ND	7.17	.582
omodichloromethane	ND	7.17	.551
omoform	ND	7.17	.822
omomethane	ND	14.3	1.76
Carbon Disulfide	ND	7.17	.706
Carbon Tetrachloride	ND	7.17	.565
Chlorobenzene	ND	7.17	.628
Chloroethane	ND	14.3	1.32
Chloroform	ND	7.17	.651
Chloromethane	ND	14.3	1.34
Cis-1,2-Dichloroethene	ND	7.17	.67
Cis-1,3-Dichloropropene	ND	7.17	.574
Dibromochloromethane	ND	7.17	.554
Ethylbenzene	ND	7.17	.775
Methylene Chloride	ND	7.17	3.57
m/p-Xylenes	ND	14.3	.99
o-Xylene	ND	7.17	.547
Styrene	ND	7.17	.684
Tetrachloroethylene	ND	7.17	.449
Toluene	ND	7.17	.58
Trans-1,2-Dichloroethene	ND	7.17	.547
Trans-1,3-Dichloropropene	ND	7.17	.501
Trichloroethene	ND	7.17	.674
Vinyl Acetate	ND	71.7	1.17
Vinyl Chloride	ND	14.3	1.81

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	100	79-118
omofluorobenzene	88	86-115
luene-d8	93	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 15:42
Sample ID	: CR-A156401	DaTime Analyzd :	12/19/96 15:42
Lab Cnt NO.	: L039-28	Dilutn Factor :	1
Lab File ID	: RLP421	Matrix :	SOIL
Ext Btch ID	: VOL2402	% Moisture :	15.4
Calib. Ref.	: RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	5.91	.63
1,1,2,2-Tetrachloroethane	ND	5.91	.981
1,1,2-Trichloroethane	ND	5.91	.999
1,1-Dichloroethane	ND	5.91	.501
1,1-Dichloroethene	ND	5.91	.617
1,2,3-Trichloropropane	ND	59.1	1.8
1,2-Dichloroethane	ND	5.91	.351
1,2-Dichloropropane	ND	5.91	1.13
2-Butanone	ND	118	2.67
2-Chloroethyl Vinyl Ether	ND	11.8	1.17
2-Hexanone	ND	59.1	1.56
4-Methyl-2-Pentanone	ND	59.1	1.85
Acetone	ND	118	5.3
Benzene	ND	5.91	.48
Bromodichloromethane	ND	5.91	.4
Bromoform	ND	5.91	.6
Bromomethane	ND	11.8	1.45
Carbon Disulfide	ND	5.91	.582
Carbon Tetrachloride	ND	5.91	.466
Chlorobenzene	ND	5.91	.518
Chloroethane	ND	11.8	1.09
Chloroform	ND	5.91	.537
Chloromethane	ND	11.8	1.1
Cis-1,2-Dichloroethene	ND	5.91	.552
Cis-1,3-Dichloropropene	ND	5.91	.473
Dibromochloromethane	ND	5.91	.456
Ethylbenzene	ND	5.91	.638
Methylene Chloride	ND	5.91	2.94
m/p-Xylenes	ND	11.8	.816
o-Xylene	ND	5.91	.45
Styrene	ND	5.91	.564
Tetrachloroethylene	ND	5.91	.37
Toluene	ND	5.91	.478
Trans-1,2-Dichloroethene	ND	5.91	.45
Trans-1,3-Dichloropropene	ND	5.91	.413
Trichloroethene	ND	5.91	.556
Vinyl Acetate	ND	59.1	.966
Vinyl Chloride	ND	11.8	1.49

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	96	79-118
Bromofluorobenzene	90	86-115
Toluene-d8	108	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/19/96 19:26
Sample ID	: CR-A156501	DaTime Analyzd :	12/19/96 19:26
Lab Cnt NO.:	L039-30	Dilutn Factor :	1
Lab File ID:	RLP429	Matrix :	SOIL
Ext Btch ID:	VOL2402	% Moisture :	28.1
Calib. Ref.:	RLP409	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	6.95	.741
1,1,2,2-Tetrachloroethane	ND	6.95	1.15
1,1,2-Trichloroethane	ND	6.95	1.18
1,1-Dichloroethane	ND	6.95	.59
1,1-Dichloroethene	ND	6.95	.726
1,2,3-Trichloropropane	ND	69.5	2.12
1,2-Dichloroethane	ND	6.95	.413
1,2-Dichloropropane	ND	6.95	1.34
2-Butanone	ND	139	3.15
2-Chloroethyl Vinyl Ether	ND	13.9	1.38
2-Hexanone	ND	69.5	1.84
4-Methyl-2-Pentanone	ND	69.5	2.17
Acetone	ND	139	6.24
Benzene	ND	6.95	.565
omodichloromethane	ND	6.95	.534
omoform	ND	6.95	.797
omomethane	ND	13.9	1.71
Carbon Disulfide	ND	6.95	.684
Carbon Tetrachloride	ND	6.95	.548
Chlorobenzene	ND	6.95	.609
Chloroethane	ND	13.9	1.28
Chloroform	ND	6.95	.631
Chloromethane	ND	13.9	1.3
Cis-1,2-Dichloroethene	ND	6.95	.65
Cis-1,3-Dichloropropene	ND	6.95	.556
Dibromochloromethane	ND	6.95	.537
Ethylbenzene	ND	6.95	.751
Methylene Chloride	ND	6.95	3.46
m/p-Xylenes	ND	13.9	.96
o-Xylene	ND	6.95	.53
Styrene	ND	6.95	.663
Tetrachloroethylene	ND	6.95	.435
Toluene	ND	6.95	.562
Trans-1,2-Dichloroethene	ND	6.95	.53
Trans-1,3-Dichloropropene	ND	6.95	.485
Trichloroethene	ND	6.95	.654
Vinyl Acetate	ND	69.5	1.14
Vinyl Chloride	ND	13.9	1.76

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	102	79-118
omofluorobenzene	99	86-115
luene-d8	96	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/20/96 10:37
Sample ID	: CR-A161203	DaTime Analyzd :	12/20/96 10:37
Lab Cnt NO.:	L039-34	Dilutn Factor :	1
Lab File ID:	RLP437	Matrix :	SOIL
Ext Btch ID:	VOL2502	% Moisture :	18.1
Calib. Ref.:	RLP433	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,1,1-Trichloroethane	ND	6.11	.651
1,1,2,2-Tetrachloroethane	ND	6.11	1.01
1,1,2-Trichloroethane	ND	6.11	1.03
1,1-Dichloroethane	ND	6.11	.518
1,1-Dichloroethene	ND	6.11	.637
1,2,3-Trichloropropane	ND	61.1	1.86
1,2-Dichloroethane	ND	6.11	.363
1,2-Dichloropropane	ND	6.11	1.17
2-Butanone	ND	122	2.76
2-Chloroethyl Vinyl Ether	ND	12.2	1.21
2-Hexanone	ND	61.1	1.61
4-Methyl-2-Pentanone	ND	61.1	1.91
Acetone	ND	122	5.47
Benzene	ND	6.11	.496
Bromodichloromethane	ND	6.11	.4
Bromoform	ND	6.11	
Bromomethane	ND	12.2	1.5
Carbon Disulfide	ND	6.11	.601
Carbon Tetrachloride	ND	6.11	.481
Chlorobenzene	ND	6.11	.535
Chloroethane	ND	12.2	1.12
Chloroform	ND	6.11	.554
Chloromethane	ND	12.2	1.14
Cis-1,2-Dichloroethene	ND	6.11	.57
Cis-1,3-Dichloropropene	ND	6.11	.488
Dibromochloromethane	ND	6.11	.471
Ethylbenzene	ND	6.11	.659
Methylene Chloride	6.65	6.11	3.04
m/p-Xylenes	ND	12.2	.842
o-Xylene	ND	6.11	.465
Styrene	ND	6.11	.582
Tetrachloroethylene	ND	6.11	.382
Toluene	ND	6.11	.493
Trans-1,2-Dichloroethene	ND	6.11	.465
Trans-1,3-Dichloropropene	ND	6.11	.426
Trichloroethene	ND	6.11	.574
Vinyl Acetate	ND	61.1	.998
Vinyl Chloride	ND	12.2	1.54

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	103	79-118
Bromofluorobenzene	92	86-115
Toluene-d8	108	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

410 760

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/18/96 18:47
Sample ID	: CR-A156205	DaTime Analyzd :	12/18/96 18:47
Lab Cnt NO.	: L039-23	Dilutn Factor :	1
Lab File ID	: RLP405	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	10.5F	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	87	79-118
Bromofluorobenzene	96	86-115
Toluene-d8	95	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/18/96 19:1
Sample ID	: CR-A161205	DaTime Analyzd :	12/18/96 19:1
Lab Cnt NO.	: L039-36	Dilutn Factor :	1
Lab File ID	: RLP406	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.4
Bromoform	ND	5	.2
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	91	79-118
Bromofluorobenzene	100	86-115
Toluene-d8	91	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/18/96 19:44
Sample ID	: CR-A161206	DaTime Analyzd :	12/18/96 19:44
Lab Cnt NO.	: L039-37	Dilutn Factor :	1
Lab File ID	: RLP407	Matrix :	WATER
Ext Btch ID	: VOL2302	% Moisture :	NA
Calib. Ref.	: RLP385	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	92	79-118
Bromofluorobenzene	95	86-115
Toluene-d8	95	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

410 763

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 3520B /8270B
SEMIVOLATILES

SDG#: 96L039

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L039

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water and seventeen (17) soil samples were received on 12/12/96 to be analyzed for semivolatile organic analysis by EPA Method 3520B/8270B in accordance to USEPA SW846.

1. Holding Time

   Analytical holding time was met.

2. Surrogate Recovery

   All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

   All recoveries and RPDs were within QC limits except low recovery of 2,4-Dinitrophenol in L039-29S and no recovery of Benzoic acid in L039-29M/S.

4. Lab Control Sample

   High recovery of 3-Nitroaniline was found in SVL008SC. Low recovery of Benzoic acid and high recovery of Dibenzo(a,h)anthracene were found in SVL009SL. Also 3-Nitroaniline had high recovery in SVL009SC.

5. Method Blank

   Method blanks were free of contamination.

6. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval.

7. Sample Analysis

   Internal standard was out of QC limits in L039-31. Sample was re-analyzed and RT window was out. Sample appeared to be dark brown and viscous. Matrix interference was suspected.

12/16/1996 10:15

LAB CHRONICLE
EPA 8270

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L039
MATRIX: Soil

	SAMPLE ID NO		CONTROL BATCH/DATE/TIME	%H2O PREPARATION BATCH/DATE/TIME		ANALYTICAL REF	ID
CR-A154502	L039-02	19.4	SVL008S / 12/12/96 / 15:00	RLB220 / 12/23/96	18:31	RLB220	RLB227
CR-A154504	L039-04	13.9		↓	19:19	↓	RLB228
CR-A154602	L039-06	12.0		RLB240 / 12/24/96	06:58	RLB240	RLB246
CR-A154604	L039-08	12.7		RLB220 / 12/23/96	20:07	RLB220	RLB229
CR-A154704	L039-10	12.6		↓	20:55	↓	RLB230
CR-A154802	L039-12	7.1		RLB240 / 12/24/96	07:45	RLB240	RLB247
CR-A154804	L039-14	11.0		RLB220 / 12/23/96	21:43	RLB220	RLB231
CR-A154902	L039-16	7.8		RLB240 / 12/24/96	06:10	RLB240	RL
CR-A154904	L039-18	11.3		RLB220 / 12/23/96	22:31	RLB220	RLB232
CR-A156202	L039-20	10.4		RLB240 / 12/24/96	08:32	RLB240	RLB24[illegible]
CR-A156204	L039-22	10.1		RLB220 / 12/23/96	23:18	RLB220	RLB233
CR-A156302	L039-27	12.3		RLB240 / 12/24/96	09:20	RLB240	RLB24[illegible]
CR-A156402	L039-29	16.0		RLB220 / 12/23/96	13:42	RLB220	RLB22[illegible]
CR-A156402MS	L039-29M	16.0			14:30		RLB22[illegible]
CR-A156402MSD	L039-29S	16.0		↓	15:18	↓	RLB22[illegible]
CR-A156502	L039-31	16.4		RLB240 / 12/24/96	10:04	RLB240	RLB25[illegible]
CR-A161201	L039-32	12.6		RLB220 / 12/24/96	00:06	RLB220	RLB22[illegible]
CR-A161202	L039-33	15.3		RLB240 / 12/24/96	04:36	RLB240	RLB243
CR-A161204	L039-35	15.7		↓	05:23	↓	RLB24[illegible]
MBLK15	SVL008SB			RLB220 / 12/23/96	16:07	RLB220	RLB224
LCS15	SVL008SL				16:55		RLB22[illegible]
LCD15	SVL008SC			↓	17:43	↓	RL
	L039-31R		↓	RLB332 / 12/30/96	00:45	RLB332	RLB3[illegible]

12/16/1996 10:15

LAB CHRONICLE
EPA 8270

LIENT: Jacobs Engineering Group
ROJECT: Carswell AFB / 05G47900

DG/BATCH NO.: 96L039
ATRIX: Water

AMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
R-A156206	L039-24	NA	SVL009W / 12/13/96 / 15:30	RLB129 / 12/19/96 / 20:15	RLB129	RLB140
CR-A161207	L039-38	NA	↓	↓ / 21:03	↓	RLB141
MBLK1W	SVL009WB		↓	↓ / 17:52	↓	RLB137
LCS1W	SVL009WL		↓	↓ / 18:39	↓	RLB138
LCD1W	SVL009WC		↓	↓ / 19:27	↓	RLB139

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154502	DaTime Analyzd :	12/23/96 18:31
Lab Cnt NO.	: L039-02	Dilutn Factor :	1
Lab File ID	: RLB227	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	19.4
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	868	128
1,2-Dichlorobenzene	ND	868	136
1,3-Dichlorobenzene	ND	868	99.3
1,4-Dichlorobenzene	ND	868	120
2,4,5-Trichlorophenol	ND	4090	123
2,4,6-Trichlorophenol	ND	372	143
2,4-Dichlorophenol	ND	372	94.3
2,4-Dimethylphenol	ND	372	110
2,4-Dinitrophenol	ND	4090	69.5
2,4-Dinitrotoluene	ND	868	143
2,6-Dinitrotoluene	ND	868	122
2-Chloronaphthalene	ND	868	115
2-Chlorophenol	ND	372	84.4
2-Methylnaphthalene	ND	868	127
2-Methylphenol	ND	372	1
2-Nitroaniline	ND	4090	1
2-Nitrophenol	ND	372	128
3,3'-Dichlorobenzidine	ND	1610	170
3-Nitroaniline	ND	4090	104
4,6-Dinitro-2-methylphenol	ND	4090	90.6
4-Bromophenyl phenyl ether	ND	868	129
4-Chloro-3-methylphenol	ND	1610	145
4-Chloroaniline	ND	1610	76.9
4-Chlorophenyl phenyl ether	ND	868	130
4-Methylphenol (1)	ND	372	84.4
4-Nitroaniline	ND	4090	108
4-Nitrophenol	ND	1990	6.95
Acenaphthene	ND	868	115
Acenaphthylene	ND	868	109
Anthracene	ND	868	128
Benzo(a)anthracene	ND	868	107
Benzo(a)pyrene	ND	868	113
Benzo(b)fluoranthene	ND	868	133
Benzo(k)fluoranthene	ND	868	124
Benzo(g,h,i)perylene	ND	868	115
Benzoic Acid	ND	1990	133
Benzyl alcohol	ND	1610	100
bis(2-Chloroethoxy)methane	ND	868	127

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154502	DaTime Analyzd :	12/23/96 18:31
Lab Cnt NO.	: L039-02	Dilutn Factor :	1
Lab File ID	: RLB227	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	19.4
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	868	83.1
bis(2-Chloroisopropyl)ether	ND	868	112
bis(2-Ethylhexyl)phthalate	ND	868	122
Butylbenzylphthalate	ND	868	252
hrysene	ND	868	124
Di-n-butylphthalate	ND	868	138
Di-n-octylphthalate	ND	868	112
Dibenzo(a,h)anthracene	ND	868	119
Dibenzofuran	ND	868	124
Diethylphthalate	ND	868	120
Dimethylphthalate	ND	868	133
luoranthene	ND	868	128
luorene	ND	868	108
exachlorobenzene	ND	868	139
xachlorobutadiene	ND	868	129
xachlorocyclopentadiene	ND	868	144
exachloroethane	ND	868	109
ndeno(1,2,3-cd)pyrene	ND	868	118
sophorone	ND	868	115
-Nitroso-di-n-propylamine	ND	868	141
-Nitrosodiphenylamine (2)	ND	868	125
aphthalene	ND	868	120
itrobenzene	ND	868	96.8
entachlorophenol	ND	4090	37.2
henanthrene	ND	868	125
henol	ND	372	96.8
yrene	ND	868	119

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
,4,6-Tribromophenol	86	25-144
2-Fluorobiphenyl	78	34-135
-Fluorophenol	79	25-135
itrobenzene-d5	82	25-135
henol-d5	81	25-135
erphenyl-d14	69	32-136

QL: Practical Quantitation Limit
1): Cannot be separated from 3-Methylphenol
2): Cannot be separated from Diphenylamine
AKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154504	DaTime Analyzd :	12/23/96 19:19
Lab Cnt NO.	: L039-04	Dilutn Factor :	1
Lab File ID	: RLB228	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	13.9
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	813	120
1,2-Dichlorobenzene	ND	813	128
1,3-Dichlorobenzene	ND	813	92.9
1,4-Dichlorobenzene	ND	813	113
2,4,5-Trichlorophenol	ND	3830	115
2,4,6-Trichlorophenol	ND	348	134
2,4-Dichlorophenol	ND	348	88.3
2,4-Dimethylphenol	ND	348	103
2,4-Dinitrophenol	ND	3830	65
2,4-Dinitrotoluene	ND	813	134
2,6-Dinitrotoluene	ND	813	114
2-Chloronaphthalene	ND	813	108
2-Chlorophenol	ND	348	79
2-Methylnaphthalene	ND	813	118
2-Methylphenol	ND	348	1[illegible]
2-Nitroaniline	ND	3830	[illegible]
2-Nitrophenol	ND	348	120
3,3'-Dichlorobenzidine	ND	1510	159
3-Nitroaniline	ND	3830	97.6
4,6-Dinitro-2-methylphenol	ND	3830	84.8
4-Bromophenyl phenyl ether	ND	813	121
4-Chloro-3-methylphenol	ND	1510	136
4-Chloroaniline	ND	1510	72
4-Chlorophenyl phenyl ether	ND	813	122
4-Methylphenol (1)	ND	348	79
4-Nitroaniline	ND	3830	101
4-Nitrophenol	ND	1860	6.5
Acenaphthene	ND	813	108
Acenaphthylene	ND	813	102
Anthracene	ND	813	120
Benzo(a)anthracene	ND	813	99.9
Benzo(a)pyrene	ND	813	106
Benzo(b)fluoranthene	ND	813	124
Benzo(k)fluoranthene	ND	813	116
Benzo(g,h,i)perylene	ND	813	108
Benzoic Acid	ND	1860	124
Benzyl alcohol	ND	1510	94.1
bis(2-Chloroethoxy)methane	ND	813	118

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154504	DaTime Analyzd :	12/23/96 19:19
Lab Cnt NO.	: L039-04	Dilutn Factor :	1
Lab File ID	: RLB228	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	13.9
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	813	77.8
bis(2-Chloroisopropyl)ether	ND	813	105
bis(2-Ethylhexyl)phthalate	ND	813	114
Butylbenzylphthalate	ND	813	236
Chrysene	ND	813	116
Di-n-butylphthalate	ND	813	129
Di-n-octylphthalate	ND	813	105
Dibenzo(a,h)anthracene	ND	813	111
Dibenzofuran	ND	813	116
Diethylphthalate	ND	813	113
Dimethylphthalate	ND	813	124
Fluoranthene	ND	813	120
Fluorene	ND	813	101
Hexachlorobenzene	ND	813	130
Hexachlorobutadiene	ND	813	121
Hexachlorocyclopentadiene	ND	813	135
Hexachloroethane	ND	813	102
Indeno(1,2,3-cd)pyrene	ND	813	110
Isophorone	ND	813	108
N-Nitroso-di-n-propylamine	ND	813	132
N-Nitrosodiphenylamine (2)	ND	813	117
Naphthalene	ND	813	113
Nitrobenzene	ND	813	90.6
Pentachlorophenol	ND	3830	34.8
Phenanthrene	ND	813	117
Phenol	ND	348	90.6
Pyrene	ND	813	111

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	83	25-144
2-Fluorobiphenyl	73	34-135
2-Fluorophenol	79	25-135
Nitrobenzene-d5	78	25-135
Phenol-d5	79	25-135
Terphenyl-d14	63	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154602	DaTime Analyzd :	12/24/96 06:58
Lab Cnt NO.	: L039-06	Dilutn Factor :	1
Lab File ID	: RLB246	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.0
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	795	117
1,2-Dichlorobenzene	ND	795	125
1,3-Dichlorobenzene	ND	795	90.9
1,4-Dichlorobenzene	ND	795	110
2,4,5-Trichlorophenol	ND	3750	112
2,4,6-Trichlorophenol	ND	341	131
2,4-Dichlorophenol	ND	341	86.4
2,4-Dimethylphenol	ND	341	101
2,4-Dinitrophenol	ND	3750	63.6
2,4-Dinitrotoluene	ND	795	131
2,6-Dinitrotoluene	ND	795	111
2-Chloronaphthalene	ND	795	106
2-Chlorophenol	ND	341	77.3
2-Methylnaphthalene	ND	795	116
2-Methylphenol	ND	341	1[illegible]
2-Nitroaniline	ND	3750	1[illegible]
2-Nitrophenol	ND	341	117
3,3'-Dichlorobenzidine	ND	1480	156
3-Nitroaniline	ND	3750	95.5
4,6-Dinitro-2-methylphenol	ND	3750	83
4-Bromophenyl phenyl ether	ND	795	118
4-Chloro-3-methylphenol	ND	1480	133
4-Chloroaniline	ND	1480	70.5
4-Chlorophenyl phenyl ether	ND	795	119
4-Methylphenol (1)	ND	341	77.3
4-Nitroaniline	ND	3750	98.9
4-Nitrophenol	ND	1820	6.36
Acenaphthene	ND	795	106
Acenaphthylene	ND	795	100
Anthracene	ND	795	117
Benzo(a)anthracene	ND	795	97.7
Benzo(a)pyrene	ND	795	103
Benzo(b)fluoranthene	ND	795	122
Benzo(k)fluoranthene	ND	795	114
Benzo(g,h,i)perylene	ND	795	106
Benzoic Acid	ND	1820	122
Benzyl alcohol	ND	1480	92
bis(2-Chloroethoxy)methane	ND	795	116

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154602	DaTime Analyzd :	12/24/96 06:58
Lab Cnt NO.	: L039-06	Dilutn Factor :	1
Lab File ID	: RLB246	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.0
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	795	76.1
bis(2-Chloroisopropyl)ether	ND	795	102
bis(2-Ethylhexyl)phthalate	ND	795	111
Butylbenzylphthalate	ND	795	231
Chrysene	ND	795	114
Di-n-butylphthalate	ND	795	126
Di-n-octylphthalate	ND	795	102
Dibenzo(a,h)anthracene	ND	795	109
Dibenzofuran	ND	795	114
Diethylphthalate	ND	795	110
Dimethylphthalate	ND	795	122
Fluoranthene	ND	795	117
Fluorene	ND	795	98.9
Hexachlorobenzene	ND	795	127
Hexachlorobutadiene	ND	795	118
Hexachlorocyclopentadiene	ND	795	132
Hexachloroethane	ND	795	100
Indeno(1,2,3-cd)pyrene	ND	795	108
Isophorone	ND	795	106
n-Nitroso-di-n-propylamine	ND	795	130
n-Nitrosodiphenylamine (2)	ND	795	115
Naphthalene	ND	795	110
Nitrobenzene	ND	795	88.6
Pentachlorophenol	ND	3750	34.1
Phenanthrene	ND	795	115
Phenol	ND	341	88.6
Pyrene	ND	795	109

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	84	25-144
2-Fluorobiphenyl	74	34-135
2-Fluorophenol	67	25-135
Nitrobenzene-d5	69	25-135
Phenol-d5	67	25-135
Terphenyl-d14	75	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154604	DaTime Analyzd :	12/23/96 20:07
Lab Cnt NO.	: L039-08	Dilutn Factor :	1
Lab File ID	: RLB229	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.7
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	802	118
1,2-Dichlorobenzene	ND	802	126
1,3-Dichlorobenzene	ND	802	91.6
1,4-Dichlorobenzene	ND	802	111
2,4,5-Trichlorophenol	ND	3780	113
2,4,6-Trichlorophenol	ND	344	132
2,4-Dichlorophenol	ND	344	87.1
2,4-Dimethylphenol	ND	344	102
2,4-Dinitrophenol	ND	3780	64.1
2,4-Dinitrotoluene	ND	802	132
2,6-Dinitrotoluene	ND	802	112
2-Chloronaphthalene	ND	802	107
2-Chlorophenol	ND	344	77.9
2-Methylnaphthalene	ND	802	117
2-Methylphenol	ND	344	[illegible]
2-Nitroaniline	ND	3780	[illegible]
2-Nitrophenol	ND	344	118
3,3'-Dichlorobenzidine	ND	1490	157
3-Nitroaniline	ND	3780	96.2
4,6-Dinitro-2-methylphenol	ND	3780	83.6
4-Bromophenyl phenyl ether	ND	802	119
4-Chloro-3-methylphenol	ND	1490	134
4-Chloroaniline	ND	1490	71
4-Chlorophenyl phenyl ether	ND	802	120
4-Methylphenol (1)	ND	344	77.9
4-Nitroaniline	ND	3780	99.7
4-Nitrophenol	ND	1830	6.41
Acenaphthene	ND	802	107
Acenaphthylene	ND	802	101
Anthracene	ND	802	118
Benzo(a)anthracene	ND	802	98.5
Benzo(a)pyrene	ND	802	104
Benzo(b)fluoranthene	ND	802	123
Benzo(k)fluoranthene	ND	802	115
Benzo(g,h,i)perylene	ND	802	107
Benzoic Acid	ND	1830	123
Benzyl alcohol	ND	1490	92.8
bis(2-Chloroethoxy)methane	ND	802	11[illegible]

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154604	DaTime Analyzd :	12/23/96 20:07
Lab Cnt NO.	: L039-08	Dilutn Factor :	1
Lab File ID	: RLB229	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.7
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	802	76.7
bis(2-Chloroisopropyl)ether	ND	802	103
bis(2-Ethylhexyl)phthalate	ND	802	112
Butylbenzylphthalate	ND	802	233
Chrysene	ND	802	115
Di-n-butylphthalate	ND	802	127
Di-n-octylphthalate	ND	802	103
Dibenzo(a,h)anthracene	ND	802	110
Dibenzofuran	ND	802	115
Diethylphthalate	ND	802	111
Dimethylphthalate	ND	802	123
Fluoranthene	ND	802	118
Fluorene	ND	802	99.7
Hexachlorobenzene	ND	802	128
xachlorobutadiene	ND	802	119
xachlorocyclopentadiene	ND	802	133
xachloroethane	ND	802	101
Indeno(1,2,3-cd)pyrene	ND	802	109
Isophorone	ND	802	107
n-Nitroso-di-n-propylamine	ND	802	131
n-Nitrosodiphenylamine (2)	ND	802	116
Naphthalene	ND	802	111
Nitrobenzene	ND	802	89.3
Pentachlorophenol	ND	3780	34.4
Phenanthrene	ND	802	116
Phenol	ND	344	89.3
Pyrene	ND	802	110

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	86	25-144
2-Fluorobiphenyl	73	34-135
2-Fluorophenol	80	25-135
Nitrobenzene-d5	80	25-135
Phenol-d5	82	25-135
Terphenyl-d14	66	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154704	DaTime Analyzd :	12/23/96 20:55
Lab Cnt NO.	: L039-10	Dilutn Factor :	1
Lab File ID	: RLB230	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.6
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	801	118
1,2-Dichlorobenzene	ND	801	126
1,3-Dichlorobenzene	ND	801	91.5
1,4-Dichlorobenzene	ND	801	111
2,4,5-Trichlorophenol	ND	3780	113
2,4,6-Trichlorophenol	ND	343	132
2,4-Dichlorophenol	ND	343	87
2,4-Dimethylphenol	ND	343	102
2,4-Dinitrophenol	ND	3780	64.1
2,4-Dinitrotoluene	ND	801	132
2,6-Dinitrotoluene	ND	801	112
2-Chloronaphthalene	ND	801	106
2-Chlorophenol	ND	343	77.8
2-Methylnaphthalene	ND	801	117
2-Methylphenol	ND	343	1[illegible]
2-Nitroaniline	ND	3780	10[illegible]
2-Nitrophenol	ND	343	118
3,3'-Dichlorobenzidine	ND	1490	157
3-Nitroaniline	ND	3780	96.1
4,6-Dinitro-2-methylphenol	ND	3780	83.5
4-Bromophenyl phenyl ether	ND	801	119
4-Chloro-3-methylphenol	ND	1490	134
4-Chloroaniline	ND	1490	70.9
4-Chlorophenyl phenyl ether	ND	801	120
4-Methylphenol (1)	ND	343	77.8
4-Nitroaniline	ND	3780	99.5
4-Nitrophenol	ND	1830	6.41
Acenaphthene	ND	801	106
Acenaphthylene	ND	801	101
Anthracene	ND	801	118
Benzo(a)anthracene	ND	801	98.4
Benzo(a)pyrene	ND	801	104
Benzo(b)fluoranthene	ND	801	122
Benzo(k)fluoranthene	ND	801	114
Benzo(g,h,i)perylene	ND	801	106
Benzoic Acid	ND	1830	122
Benzyl alcohol	ND	1490	92.7
bis(2-Chloroethoxy)methane	ND	801	117

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154704	DaTime Analyzd :	12/23/96 20:55
Lab Cnt NO.	: L039-10	Dilutn Factor :	1
Lab File ID	: RLB230	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.6
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	801	76.7
bis(2-Chloroisopropyl)ether	ND	801	103
bis(2-Ethylhexyl)phthalate	ND	801	112
Butylbenzylphthalate	ND	801	232
Chrysene	ND	801	114
Di-n-butylphthalate	ND	801	127
Di-n-octylphthalate	ND	801	103
Dibenzo(a,h)anthracene	ND	801	110
Dibenzofuran	ND	801	114
Diethylphthalate	ND	801	111
Dimethylphthalate	ND	801	122
Fluoranthene	ND	801	118
Fluorene	ND	801	99.5
Hexachlorobenzene	ND	801	128
Hexachlorobutadiene	ND	801	119
Hexachlorocyclopentadiene	ND	801	133
Hexachloroethane	ND	801	101
Indeno(1,2,3-cd)pyrene	ND	801	109
Isophorone	ND	801	106
N-Nitroso-di-n-propylamine	ND	801	130
n-Nitrosodiphenylamine (2)	ND	801	116
Naphthalene	ND	801	111
Nitrobenzene	ND	801	89.2
Pentachlorophenol	ND	3780	34.3
Phenanthrene	ND	801	116
Phenol	ND	343	89.2
Pyrene	ND	801	110

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	84	25-144
2-Fluorobiphenyl	73	34-135
2-Fluorophenol	81	25-135
Nitrobenzene-d5	81	25-135
Phenol-d5	80	25-135
Terphenyl-d14	63	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

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SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154802	DaTime Analyzd :	12/24/96 07:45
Lab Cnt NO.:	L039-12	Dilutn Factor :	1
Lab File ID:	RLB247	Matrix :	SOIL
Ext Btch ID:	SVL008S	% Moisture :	7.1
Calib. Ref.:	RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	753	111
1,2-Dichlorobenzene	ND	753	118
1,3-Dichlorobenzene	ND	753	86.1
1,4-Dichlorobenzene	ND	753	104
2,4,5-Trichlorophenol	ND	3550	107
2,4,6-Trichlorophenol	ND	323	124
2,4-Dichlorophenol	ND	323	81.8
2,4-Dimethylphenol	ND	323	95.8
2,4-Dinitrophenol	ND	3550	60.3
2,4-Dinitrotoluene	ND	753	124
2,6-Dinitrotoluene	ND	753	105
2-Chloronaphthalene	ND	753	100
2-Chlorophenol	ND	323	73.2
2-Methylnaphthalene	ND	753	110
2-Methylphenol	ND	323	1
2-Nitroaniline	ND	3550	94
2-Nitrophenol	ND	323	111
3,3'-Dichlorobenzidine	ND	1400	147
3-Nitroaniline	ND	3550	90.4
4,6-Dinitro-2-methylphenol	ND	3550	78.6
4-Bromophenyl phenyl ether	ND	753	112
4-Chloro-3-methylphenol	ND	1400	126
4-Chloroaniline	ND	1400	66.7
4-Chlorophenyl phenyl ether	ND	753	113
4-Methylphenol (1)	ND	323	73.2
4-Nitroaniline	ND	3550	93.6
4-Nitrophenol	ND	1720	6.03
Acenaphthene	ND	753	100
Acenaphthylene	ND	753	94.7
Anthracene	ND	753	111
Benzo(a)anthracene	ND	753	92.6
Benzo(a)pyrene	ND	753	98
Benzo(b)fluoranthene	ND	753	115
Benzo(k)fluoranthene	ND	753	108
Benzo(g,h,i)perylene	ND	753	100
Benzoic Acid	ND	1720	115
Benzyl alcohol	ND	1400	87.2
bis(2-Chloroethoxy)methane	ND	753	110

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154802	DaTime Analyzd :	12/24/96 07:45
Lab Cnt NO.	: L039-12	Dilutn Factor :	1
Lab File ID	: RLB247	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	7.1
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	753	72.1
bis(2-Chloroisopropyl)ether	ND	753	96.9
bis(2-Ethylhexyl)phthalate	219F	753	105
Butylbenzylphthalate	ND	753	219
Chrysene	ND	753	108
Di-n-butylphthalate	175F	753	119
Di-n-octylphthalate	ND	753	96.9
Dibenzo(a,h)anthracene	ND	753	103
Dibenzofuran	ND	753	108
Diethylphthalate	ND	753	104
Dimethylphthalate	ND	753	115
Fluoranthene	ND	753	111
Fluorene	ND	753	93.6
Hexachlorobenzene	ND	753	121
Hexachlorobutadiene	ND	753	112
Hexachlorocyclopentadiene	ND	753	125
Hexachloroethane	ND	753	94.7
Indeno(1,2,3-cd)pyrene	ND	753	102
Isophorone	ND	753	100
n-Nitroso-di-n-propylamine	ND	753	123
n-Nitrosodiphenylamine (2)	ND	753	109
Naphthalene	ND	753	104
Nitrobenzene	ND	753	84
Pentachlorophenol	ND	3550	32.3
Phenanthrene	ND	753	109
Phenol	ND	323	84
Pyrene	ND	753	103

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	86	25-144
2-Fluorobiphenyl	75	34-135
2-Fluorophenol	65	25-135
Nitrobenzene-d5	71	25-135
Phenol-d5	67	25-135
Terphenyl-d14	80	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154804	DaTime Analyzd :	12/23/96 21:43
Lab Cnt NO.	: L039-14	Dilutn Factor :	1
Lab File ID	: RLB231	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	11.0
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	787	116
1,2-Dichlorobenzene	ND	787	124
1,3-Dichlorobenzene	ND	787	89.9
1,4-Dichlorobenzene	ND	787	109
2,4,5-Trichlorophenol	ND	3710	111
2,4,6-Trichlorophenol	ND	337	129
2,4-Dichlorophenol	ND	337	85.4
2,4-Dimethylphenol	ND	337	100
2,4-Dinitrophenol	ND	3710	62.9
2,4-Dinitrotoluene	ND	787	129
2,6-Dinitrotoluene	ND	787	110
2-Chloronaphthalene	ND	787	104
2-Chlorophenol	ND	337	76.4
2-Methylnaphthalene	ND	787	115
2-Methylphenol	ND	337	1[illegible]
2-Nitroaniline	ND	3710	98.[illegible]
2-Nitrophenol	ND	337	116
3,3'-Dichlorobenzidine	ND	1460	154
3-Nitroaniline	ND	3710	94.4
4,6-Dinitro-2-methylphenol	ND	3710	82
4-Bromophenyl phenyl ether	ND	787	117
4-Chloro-3-methylphenol	ND	1460	131
4-Chloroaniline	ND	1460	69.7
4-Chlorophenyl phenyl ether	ND	787	118
4-Methylphenol (1)	ND	337	76.4
4-Nitroaniline	ND	3710	97.8
4-Nitrophenol	ND	1800	6.29
Acenaphthene	ND	787	104
Acenaphthylene	ND	787	98.9
Anthracene	ND	787	116
Benzo(a)anthracene	ND	787	96.6
Benzo(a)pyrene	ND	787	102
Benzo(b)fluoranthene	ND	787	120
Benzo(k)fluoranthene	ND	787	112
Benzo(g,h,i)perylene	ND	787	104
Benzoic Acid	ND	1800	120
Benzyl alcohol	ND	1460	91
bis(2-Chloroethoxy)methane	ND	787	115

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/12/96
Batch No.	: 96L039	DaTime Extrctd	: 12/12/96 15:00
Sample ID	: CR-A154804	DaTime Analyzd	: 12/23/96 21:43
Lab Cnt NO.	: L039-14	Dilutn Factor	: 1
Lab File ID	: RLB231	Matrix	: SOIL
Ext Btch ID	: SVL008S	% Moisture	: 11.0
Calib. Ref.	: RLB220	Instrument ID	: MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	787	75.3
bis(2-Chloroisopropyl)ether	ND	787	101
bis(2-Ethylhexyl)phthalate	ND	787	110
Butylbenzylphthalate	ND	787	228
Chrysene	ND	787	112
Di-n-butylphthalate	ND	787	125
Di-n-octylphthalate	ND	787	101
Dibenzo(a,h)anthracene	ND	787	108
Dibenzofuran	ND	787	112
Diethylphthalate	ND	787	109
Dimethylphthalate	ND	787	120
Fluoranthene	ND	787	116
Fluorene	ND	787	97.8
Hexachlorobenzene	ND	787	126
Hexachlorobutadiene	ND	787	117
Hexachlorocyclopentadiene	ND	787	130
Hexachloroethane	ND	787	98.9
Indeno(1,2,3-cd)pyrene	ND	787	107
Isophorone	ND	787	104
N-Nitroso-di-n-propylamine	ND	787	128
N-Nitrosodiphenylamine (2)	ND	787	113
Naphthalene	ND	787	109
Nitrobenzene	ND	787	87.6
Pentachlorophenol	ND	3710	33.7
Phenanthrene	ND	787	113
Phenol	ND	337	87.6
Pyrene	ND	787	108

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	81	25-144
2-Fluorobiphenyl	69	34-135
2-Fluorophenol	74	25-135
Nitrobenzene-d5	76	25-135
Phenol-d5	76	25-135
Terphenyl-d14	60	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154902	DaTime Analyzd :	12/24/96 06:10
Lab Cnt NO.	: L039-16	Dilutn Factor :	1
Lab File ID	: RLB245	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	7.8
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	759	112
1,2-Dichlorobenzene	ND	759	119
1,3-Dichlorobenzene	ND	759	86.8
1,4-Dichlorobenzene	ND	759	105
2,4,5-Trichlorophenol	ND	3580	107
2,4,6-Trichlorophenol	ND	325	125
2,4-Dichlorophenol	ND	325	82.4
2,4-Dimethylphenol	ND	325	96.5
2,4-Dinitrophenol	ND	3580	60.7
2,4-Dinitrotoluene	ND	759	125
2,6-Dinitrotoluene	ND	759	106
2-Chloronaphthalene	ND	759	101
2-Chlorophenol	ND	325	73.8
2-Methylnaphthalene	ND	759	111
2-Methylphenol	ND	325	1[illegible]
2-Nitroaniline	ND	3580	9[illegible]
2-Nitrophenol	ND	325	112
3,3'-Dichlorobenzidine	ND	1410	149
3-Nitroaniline	ND	3580	91.1
4,6-Dinitro-2-methylphenol	ND	3580	79.2
4-Bromophenyl phenyl ether	ND	759	113
4-Chloro-3-methylphenol	ND	1410	127
4-Chloroaniline	ND	1410	67.2
4-Chlorophenyl phenyl ether	ND	759	114
4-Methylphenol (1)	ND	325	73.8
4-Nitroaniline	ND	3580	94.4
4-Nitrophenol	ND	1740	6.07
Acenaphthene	ND	759	101
Acenaphthylene	ND	759	95.4
Anthracene	ND	759	112
Benzo(a)anthracene	ND	759	93.3
Benzo(a)pyrene	ND	759	98.7
Benzo(b)fluoranthene	ND	759	116
Benzo(k)fluoranthene	ND	759	108
Benzo(g,h,i)perylene	ND	759	101
Benzoic Acid	ND	1740	116
Benzyl alcohol	ND	1410	87.9
bis(2-Chloroethoxy)methane	ND	759	111

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154902	DaTime Analyzd :	12/24/96 06:10
Lab Cnt NO.	: L039-16	Dilutn Factor :	1
Lab File ID	: RLB245	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	7.8
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	759	72.7
bis(2-Chloroisopropyl)ether	ND	759	97.6
bis(2-Ethylhexyl)phthalate	ND	759	106
Butylbenzylphthalate	ND	759	220
Chrysene	ND	759	108
Di-n-butylphthalate	ND	759	120
Di-n-octylphthalate	ND	759	97.6
Dibenzo(a,h)anthracene	ND	759	104
Dibenzofuran	ND	759	108
Diethylphthalate	ND	759	105
Dimethylphthalate	ND	759	116
Fluoranthene	ND	759	112
Fluorene	ND	759	94.4
Hexachlorobenzene	ND	759	121
xachlorobutadiene	ND	759	113
xachlorocyclopentadiene	ND	759	126
Hexachloroethane	ND	759	95.4
Indeno(1,2,3-cd)pyrene	ND	759	103
sophorone	ND	759	101
-Nitroso-di-n-propylamine	ND	759	124
n-Nitrosodiphenylamine (2)	ND	759	110
Naphthalene	ND	759	105
Nitrobenzene	ND	759	84.6
Pentachlorophenol	ND	3580	32.5
Phenanthrene	ND	759	110
Phenol	ND	325	84.6
Pyrene	ND	759	104

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	89	25-144
2-Fluorobiphenyl	74	34-135
2-Fluorophenol	65	25-135
Nitrobenzene-d5	71	25-135
Phenol-d5	69	25-135
Terphenyl-d14	81	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

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SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154904	DaTime Analyzd :	12/23/96 22:31
Lab Cnt NO.	: L039-18	Dilutn Factor :	1
Lab File ID	: RLB232	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	11.3
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	789	116
1,2-Dichlorobenzene	ND	789	124
1,3-Dichlorobenzene	ND	789	90.2
1,4-Dichlorobenzene	ND	789	109
2,4,5-Trichlorophenol	ND	3720	112
2,4,6-Trichlorophenol	ND	338	130
2,4-Dichlorophenol	ND	338	85.7
2,4-Dimethylphenol	ND	338	100
2,4-Dinitrophenol	ND	3720	63.1
2,4-Dinitrotoluene	ND	789	130
2,6-Dinitrotoluene	ND	789	110
2-Chloronaphthalene	ND	789	105
2-Chlorophenol	ND	338	76.7
2-Methylnaphthalene	ND	789	115
2-Methylphenol	ND	338	1[illegible]
2-Nitroaniline	ND	3720	95[illegible]
2-Nitrophenol	ND	338	116
3,3'-Dichlorobenzidine	ND	1470	154
3-Nitroaniline	ND	3720	94.7
4,6-Dinitro-2-methylphenol	ND	3720	82.3
4-Bromophenyl phenyl ether	ND	789	117
4-Chloro-3-methylphenol	ND	1470	132
4-Chloroaniline	ND	1470	69.9
4-Chlorophenyl phenyl ether	ND	789	118
4-Methylphenol (1)	ND	338	76.7
4-Nitroaniline	ND	3720	98.1
4-Nitrophenol	ND	1800	6.31
Acenaphthene	ND	789	105
Acenaphthylene	ND	789	99.2
Anthracene	ND	789	116
Benzo(a)anthracene	ND	789	97
Benzo(a)pyrene	ND	789	103
Benzo(b)fluoranthene	ND	789	121
Benzo(k)fluoranthene	ND	789	113
Benzo(g,h,i)perylene	ND	789	105
Benzoic Acid	ND	1800	121
Benzyl alcohol	ND	1470	91.3
bis(2-Chloroethoxy)methane	ND	789	115

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A154904	DaTime Analyzd :	12/23/96 22:31
Lab Cnt NO.	: L039-18	Dilutn Factor :	1
Lab File ID	: RLB232	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	11.3
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	789	75.5
bis(2-Chloroisopropyl)ether	ND	789	101
bis(2-Ethylhexyl)phthalate	ND	789	110
Butylbenzylphthalate	ND	789	229
Chrysene	ND	789	113
Di-n-butylphthalate	ND	789	125
Di-n-octylphthalate	ND	789	101
Dibenzo(a,h)anthracene	ND	789	108
Dibenzofuran	ND	789	113
Diethylphthalate	ND	789	109
Dimethylphthalate	ND	789	121
Fluoranthene	ND	789	116
Fluorene	ND	789	98.1
Hexachlorobenzene	ND	789	126
xachlorobutadiene	ND	789	117
xachlorocyclopentadiene	ND	789	131
Hexachloroethane	ND	789	99.2
Indeno(1,2,3-cd)pyrene	ND	789	107
Isophorone	ND	789	105
-Nitroso-di-n-propylamine	ND	789	129
n-Nitrosodiphenylamine (2)	ND	789	114
Naphthalene	ND	789	109
Nitrobenzene	ND	789	87.9
Pentachlorophenol	ND	3720	33.8
Phenanthrene	ND	789	114
Phenol	ND	338	87.9
Pyrene	ND	789	108

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	83	25-144
2-Fluorobiphenyl	70	34-135
2-Fluorophenol	68	25-135
Nitrobenzene-d5	69	25-135
Phenol-d5	70	25-135
Terphenyl-d14	66	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156202	DaTime Analyzd :	12/24/96 08:32
Lab Cnt NO.	: L039-20	Dilutn Factor :	1
Lab File ID	: RLB248	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	10.4
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	781	115
1,2-Dichlorobenzene	ND	781	123
1,3-Dichlorobenzene	ND	781	89.3
1,4-Dichlorobenzene	ND	781	108
2,4,5-Trichlorophenol	ND	3680	110
2,4,6-Trichlorophenol	ND	335	128
2,4-Dichlorophenol	ND	335	84.8
2,4-Dimethylphenol	ND	335	99.3
2,4-Dinitrophenol	ND	3680	62.5
2,4-Dinitrotoluene	ND	781	128
2,6-Dinitrotoluene	ND	781	109
2-Chloronaphthalene	ND	781	104
2-Chlorophenol	ND	335	75.9
2-Methylnaphthalene	ND	781	114
2-Methylphenol	ND	335	1
2-Nitroaniline	ND	3680	98.
2-Nitrophenol	ND	335	115
3,3'-Dichlorobenzidine	ND	1450	153
3-Nitroaniline	ND	3680	93.8
4,6-Dinitro-2-methylphenol	ND	3680	81.5
4-Bromophenyl phenyl ether	ND	781	116
4-Chloro-3-methylphenol	ND	1450	131
4-Chloroaniline	ND	1450	69.2
4-Chlorophenyl phenyl ether	ND	781	117
4-Methylphenol (1)	ND	335	75.9
4-Nitroaniline	ND	3680	97.1
4-Nitrophenol	ND	1790	6.25
Acenaphthene	ND	781	104
Acenaphthylene	ND	781	98.2
Anthracene	ND	781	115
Benzo(a)anthracene	ND	781	96
Benzo(a)pyrene	ND	781	102
Benzo(b)fluoranthene	ND	781	119
Benzo(k)fluoranthene	ND	781	112
Benzo(g,h,i)perylene	ND	781	104
Benzoic Acid	ND	1790	119
Benzyl alcohol	ND	1450	90.4
bis(2-Chloroethoxy)methane	ND	781	114

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156202	DaTime Analyzd :	12/24/96 08:32
Lab Cnt NO.	: L039-20	Dilutn Factor :	1
Lab File ID	: RLB248	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	10.4
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	781	74.8
bis(2-Chloroisopropyl)ether	ND	781	100
bis(2-Ethylhexyl)phthalate	ND	781	109
Butylbenzylphthalate	ND	781	227
Chrysene	ND	781	112
Di-n-butylphthalate	ND	781	124
Di-n-octylphthalate	ND	781	100
Dibenzo(a,h)anthracene	ND	781	107
Dibenzofuran	ND	781	112
Diethylphthalate	ND	781	108
Dimethylphthalate	ND	781	119
Fluoranthene	147F	781	115
Fluorene	ND	781	97.1
Hexachlorobenzene	ND	781	125
xachlorobutadiene	ND	781	116
xachlorocyclopentadiene	ND	781	129
exachloroethane	ND	781	98.2
Indeno(1,2,3-cd)pyrene	ND	781	106
Isophorone	ND	781	104
n-Nitroso-di-n-propylamine	ND	781	127
n-Nitrosodiphenylamine (2)	ND	781	113
Naphthalene	ND	781	108
Nitrobenzene	ND	781	87.1
Pentachlorophenol	ND	3680	33.5
Phenanthrene	ND	781	113
Phenol	ND	335	87.1
Pyrene	ND	781	107

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	85	25-144
2-Fluorobiphenyl	74	34-135
2-Fluorophenol	70	25-135
Nitrobenzene-d5	78	25-135
Phenol-d5	69	25-135
Terphenyl-d14	74	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156204	DaTime Analyzd :	12/23/96 23:18
Lab Cnt NO.	: L039-22	Dilutn Factor :	1
Lab File ID	: RLB233	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	10.1
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	779	115
1,2-Dichlorobenzene	ND	779	122
1,3-Dichlorobenzene	ND	779	89
1,4-Dichlorobenzene	ND	779	108
2,4,5-Trichlorophenol	ND	3670	110
2,4,6-Trichlorophenol	ND	334	128
2,4-Dichlorophenol	ND	334	84.5
2,4-Dimethylphenol	ND	334	99
2,4-Dinitrophenol	ND	3670	62.3
2,4-Dinitrotoluene	ND	779	128
2,6-Dinitrotoluene	ND	779	109
2-Chloronaphthalene	ND	779	103
2-Chlorophenol	ND	334	75.6
2-Methylnaphthalene	ND	779	113
2-Methylphenol	ND	334	107
2-Nitroaniline	ND	3670	97
2-Nitrophenol	ND	334	115
3,3'-Dichlorobenzidine	ND	1450	152
3-Nitroaniline	ND	3670	93.4
4,6-Dinitro-2-methylphenol	ND	3670	81.2
4-Bromophenyl phenyl ether	ND	779	116
4-Chloro-3-methylphenol	ND	1450	130
4-Chloroaniline	ND	1450	69
4-Chlorophenyl phenyl ether	ND	779	117
4-Methylphenol (1)	ND	334	75.6
4-Nitroaniline	ND	3670	96.8
4-Nitrophenol	ND	1780	6.23
Acenaphthene	ND	779	103
Acenaphthylene	ND	779	97.9
Anthracene	ND	779	115
Benzo(a)anthracene	ND	779	95.7
Benzo(a)pyrene	ND	779	101
Benzo(b)fluoranthene	ND	779	119
Benzo(k)fluoranthene	ND	779	111
Benzo(g,h,i)perylene	ND	779	103
Benzoic Acid	ND	1780	119
Benzyl alcohol	ND	1450	90.1
bis(2-Chloroethoxy)methane	ND	779	113

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156204	DaTime Analyzd :	12/23/96 23:18
Lab Cnt NO.	: L039-22	Dilutn Factor :	1
Lab File ID	: RLB233	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	10.1
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	779	74.5
bis(2-Chloroisopropyl)ether	ND	779	100
bis(2-Ethylhexyl)phthalate	ND	779	109
Butylbenzylphthalate	ND	779	226
Chrysene	ND	779	111
Di-n-butylphthalate	130F	779	123
Di-n-octylphthalate	ND	779	100
Dibenzo(a,h)anthracene	ND	779	107
Dibenzofuran	ND	779	111
Diethylphthalate	ND	779	108
Dimethylphthalate	ND	779	119
Fluoranthene	ND	779	115
Fluorene	ND	779	96.8
Hexachlorobenzene	ND	779	125
Hexachlorobutadiene	ND	779	116
Hexachlorocyclopentadiene	ND	779	129
Hexachloroethane	ND	779	97.9
Indeno(1,2,3-cd)pyrene	ND	779	106
Isophorone	ND	779	103
N-Nitroso-di-n-propylamine	ND	779	127
N-Nitrosodiphenylamine (2)	ND	779	112
Naphthalene	ND	779	108
Nitrobenzene	ND	779	86.8
Pentachlorophenol	ND	3670	33.4
Phenanthrene	ND	779	112
Phenol	ND	334	86.8
Pyrene	ND	779	107

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	86	25-144
2-Fluorobiphenyl	74	34-135
2-Fluorophenol	75	25-135
Nitrobenzene-d5	76	25-135
Phenol-d5	76	25-135
Terphenyl-d14	65	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/12/96
Batch No.	: 96L039	DaTime Extrctd	: 12/13/96 15:3
Sample ID	: CR-A156206	DaTime Analyzd	: 12/19/96 20:1
Lab Cnt NO.	: L039-24	Dilutn Factor	: 1
Lab File ID	: RLB140	Matrix	: WATER
Ext Btch ID	: SVL009W	% Moisture	: NA
Calib. Ref.	: RLB129	Instrument ID	: MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	[illegible]
2-Nitroaniline	ND	50	[illegible]
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/10/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A156206	DaTime Analyzd :	12/19/96 20:15
Lab Cnt NO.	: L039-24	Dilutn Factor :	1
Lab File ID	: RLB140	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RLB129	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
xachlorobutadiene	ND	10	2.2
xachlorocyclopentadiene	ND	10	1.6
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	101	25-134
2-Fluorobiphenyl	85	43-125
2-Fluorophenol	83	25-125
Nitrobenzene-d5	93	32-125
Phenol-d5	83	25-125
Terphenyl-d14	95	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156302	DaTime Analyzd :	12/24/96 09:20
Lab Cnt NO.	: L039-27	Dilutn Factor :	1
Lab File ID	: RLB249	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.3
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	798	117
1,2-Dichlorobenzene	ND	798	125
1,3-Dichlorobenzene	ND	798	91.2
1,4-Dichlorobenzene	ND	798	111
2,4,5-Trichlorophenol	ND	3760	113
2,4,6-Trichlorophenol	ND	342	131
2,4-Dichlorophenol	ND	342	86.7
2,4-Dimethylphenol	ND	342	101
2,4-Dinitrophenol	ND	3760	63.9
2,4-Dinitrotoluene	ND	798	131
2,6-Dinitrotoluene	ND	798	112
2-Chloronaphthalene	ND	798	106
2-Chlorophenol	ND	342	77.5
2-Methylnaphthalene	ND	798	11[illegible]
2-Methylphenol	ND	342	1[illegible]
2-Nitroaniline	ND	3760	10[illegible]
2-Nitrophenol	ND	342	117
3,3'-Dichlorobenzidine	ND	1480	156
3-Nitroaniline	ND	3760	95.8
4,6-Dinitro-2-methylphenol	ND	3760	83.2
4-Bromophenyl phenyl ether	ND	798	119
4-Chloro-3-methylphenol	ND	1480	133
4-Chloroaniline	ND	1480	70.7
4-Chlorophenyl phenyl ether	ND	798	120
4-Methylphenol (1)	ND	342	77.5
4-Nitroaniline	ND	3760	99.2
4-Nitrophenol	ND	1820	6.39
Acenaphthene	ND	798	106
Acenaphthylene	ND	798	100
Anthracene	ND	798	117
Benzo(a)anthracene	ND	798	98.1
Benzo(a)pyrene	ND	798	104
Benzo(b)fluoranthene	ND	798	122
Benzo(k)fluoranthene	ND	798	114
Benzo(g,h,i)perylene	ND	798	106
Benzoic Acid	ND	1820	122
Benzyl alcohol	ND	1480	92.4
bis(2-Chloroethoxy)methane	ND	798	116

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156302	DaTime Analyzd :	12/24/96 09:20
Lab Cnt NO.	: L039-27	Dilutn Factor :	1
Lab File ID	: RLB249	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.3
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	798	76.4
bis(2-Chloroisopropyl)ether	ND	798	103
bis(2-Ethylhexyl)phthalate	ND	798	112
Butylbenzylphthalate	ND	798	231
Chrysene	ND	798	114
Di-n-butylphthalate	ND	798	127
Di-n-octylphthalate	ND	798	103
Dibenzo(a,h)anthracene	ND	798	109
Dibenzofuran	ND	798	114
Diethylphthalate	ND	798	111
Dimethylphthalate	ND	798	122
Fluoranthene	ND	798	117
Fluorene	ND	798	99.2
Hexachlorobenzene	ND	798	128
Hexachlorobutadiene	ND	798	119
Hexachlorocyclopentadiene	ND	798	132
Hexachloroethane	ND	798	100
Indeno(1,2,3-cd)pyrene	ND	798	108
Isophorone	ND	798	106
N-Nitroso-di-n-propylamine	ND	798	130
N-Nitrosodiphenylamine (2)	ND	798	115
Naphthalene	ND	798	111
Nitrobenzene	ND	798	88.9
Pentachlorophenol	ND	3760	34.2
Phenanthrene	ND	798	115
Phenol	ND	342	88.9
Pyrene	ND	798	109

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	90	25-144
2-Fluorobiphenyl	69	34-135
2-Fluorophenol	60	25-135
Nitrobenzene-d5	64	25-135
Phenol-d5	63	25-135
Terphenyl-d14	79	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156402	DaTime Analyzd :	12/23/96 13:42
Lab Cnt NO.:	L039-29	Dilutn Factor :	1
Lab File ID:	RLB221	Matrix :	SOIL
Ext Btch ID:	SVL008S	% Moisture :	16.0
Calib. Ref.:	RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	833	123
1,2-Dichlorobenzene	ND	833	131
1,3-Dichlorobenzene	ND	833	95.2
1,4-Dichlorobenzene	ND	833	115
2,4,5-Trichlorophenol	ND	3930	118
2,4,6-Trichlorophenol	ND	357	137
2,4-Dichlorophenol	ND	357	90.5
2,4-Dimethylphenol	ND	357	106
2,4-Dinitrophenol	ND	3930	66.7
2,4-Dinitrotoluene	ND	833	137
2,6-Dinitrotoluene	ND	833	117
2-Chloronaphthalene	ND	833	111
2-Chlorophenol	ND	357	81
2-Methylnaphthalene	ND	833	12[illegible]
2-Methylphenol	ND	357	1[illegible]
2-Nitroaniline	ND	3930	1[illegible]
2-Nitrophenol	ND	357	123
3,3'-Dichlorobenzidine	ND	1550	163
3-Nitroaniline	ND	3930	100
4,6-Dinitro-2-methylphenol	ND	3930	86.9
4-Bromophenyl phenyl ether	ND	833	124
4-Chloro-3-methylphenol	ND	1550	139
4-Chloroaniline	ND	1550	73.8
4-Chlorophenyl phenyl ether	ND	833	125
4-Methylphenol (1)	ND	357	81
4-Nitroaniline	ND	3930	104
4-Nitrophenol	ND	1900	6.67
Acenaphthene	ND	833	111
Acenaphthylene	ND	833	105
Anthracene	ND	833	123
Benzo(a)anthracene	ND	833	102
Benzo(a)pyrene	ND	833	108
Benzo(b)fluoranthene	ND	833	127
Benzo(k)fluoranthene	ND	833	119
Benzo(g,h,i)perylene	ND	833	111
Benzoic Acid	ND	1900	127
Benzyl alcohol	ND	1550	96.4
bis(2-Chloroethoxy)methane	ND	833	121

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156402	DaTime Analyzd :	12/23/96 13:42
Lab Cnt NO.	: L039-29	Dilutn Factor :	1
Lab File ID	: RLB221	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	16.0
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	833	79.8
bis(2-Chloroisopropyl)ether	ND	833	107
bis(2-Ethylhexyl)phthalate	ND	833	117
Butylbenzylphthalate	ND	833	242
Chrysene	ND	833	119
Di-n-butylphthalate	161F	833	132
Di-n-octylphthalate	ND	833	107
Dibenzo(a,h)anthracene	ND	833	114
Dibenzofuran	ND	833	119
Diethylphthalate	ND	833	115
Dimethylphthalate	ND	833	127
Fluoranthene	ND	833	123
Fluorene	ND	833	104
Hexachlorobenzene	ND	833	133
xachlorobutadiene	ND	833	124
xachlorocyclopentadiene	ND	833	138
Hexachloroethane	ND	833	105
Indeno(1,2,3-cd)pyrene	ND	833	113
Isophorone	ND	833	111
n-Nitroso-di-n-propylamine	ND	833	136
n-Nitrosodiphenylamine (2)	ND	833	120
Naphthalene	ND	833	115
Nitrobenzene	ND	833	92.9
Pentachlorophenol	ND	3930	35.7
Phenanthrene	ND	833	120
Phenol	ND	357	92.9
Pyrene	ND	833	114

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
,4,6-Tribromophenol	84	25-144
2-Fluorobiphenyl	79	34-135
2-Fluorophenol	73	25-135
Nitrobenzene-d5	81	25-135
Phenol-d5	72	25-135
Terphenyl-d14	71	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156502	DaTime Analyzd :	12/24/96 10:04
Lab Cnt NO.	: L039-31	Dilutn Factor :	1
Lab File ID	: RLB250	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	16.4
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	837	123
1,2-Dichlorobenzene	ND	837	132
1,3-Dichlorobenzene	ND	837	95.7
1,4-Dichlorobenzene	ND	837	116
2,4,5-Trichlorophenol	ND	3950	118
2,4,6-Trichlorophenol	ND	359	138
2,4-Dichlorophenol	ND	359	90.9
2,4-Dimethylphenol	ND	359	106
2,4-Dinitrophenol	ND	3950	67
2,4-Dinitrotoluene	ND	837	138
2,6-Dinitrotoluene	ND	837	117
2-Chloronaphthalene	ND	837	111
2-Chlorophenol	ND	359	81.3
2-Methylnaphthalene	ND	837	122
2-Methylphenol	ND	359	[illegible]
2-Nitroaniline	ND	3950	[illegible]
2-Nitrophenol	ND	359	125
3,3'-Dichlorobenzidine	ND	1560	164
3-Nitroaniline	ND	3950	100
4,6-Dinitro-2-methylphenol	ND	3950	87.3
4-Bromophenyl phenyl ether	ND	837	124
4-Chloro-3-methylphenol	ND	1560	140
4-Chloroaniline	ND	1560	74.2
4-Chlorophenyl phenyl ether	ND	837	126
4-Methylphenol (1)	ND	359	81.3
4-Nitroaniline	ND	3950	104
4-Nitrophenol	ND	1910	6.7
Acenaphthene	ND	837	111
Acenaphthylene	ND	837	105
Anthracene	ND	837	123
Benzo(a)anthracene	ND	837	103
Benzo(a)pyrene	ND	837	109
Benzo(b)fluoranthene	ND	837	128
Benzo(k)fluoranthene	ND	837	120
Benzo(g,h,i)perylene	ND	837	111
Benzoic Acid	ND	1910	128
Benzyl alcohol	ND	1560	96.9
bis(2-Chloroethoxy)methane	ND	837	122

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156502	DaTime Analyzd :	12/24/96 10:04
Lab Cnt NO.	: L039-31	Dilutn Factor :	1
Lab File ID	: RLB250	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	16.4
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	837	80.1
bis(2-Chloroisopropyl)ether	ND	837	108
bis(2-Ethylhexyl)phthalate	ND	837	117
Butylbenzylphthalate	ND	837	243
Chrysene	ND	837	120
Di-n-butylphthalate	ND	837	133
Di-n-octylphthalate	ND	837	108
Dibenzo(a,h)anthracene	ND	837	115
Dibenzofuran	ND	837	120
Diethylphthalate	ND	837	116
Dimethylphthalate	ND	837	128
Fluoranthene	ND	837	123
Fluorene	ND	837	104
Hexachlorobenzene	ND	837	134
Hexachlorobutadiene	ND	837	124
Hexachlorocyclopentadiene	ND	837	139
Hexachloroethane	ND	837	105
Indeno(1,2,3-cd)pyrene	ND	837	114
Isophorone	ND	837	111
N-Nitroso-di-n-propylamine	ND	837	136
N-Nitrosodiphenylamine (2)	ND	837	121
Naphthalene	ND	837	116
Nitrobenzene	ND	837	93.3
Pentachlorophenol	ND	3950	35.9
Phenanthrene	ND	837	121
Phenol	ND	359	93.3
Pyrene	ND	837	115

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	99	25-144
2-Fluorobiphenyl	87	34-135
2-Fluorophenol	86	25-135
Nitrobenzene-d5	86	25-135
Phenol-d5	85	25-135
Terphenyl-d14	97	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156502	DaTime Analyzd :	12/30/96 00:45
Lab Cnt NO.	: L039-31R	Dilutn Factor :	1
Lab File ID	: RLB336	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	16.4
Calib. Ref.	: RLB332	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	837	123
1,2-Dichlorobenzene	ND	837	132
1,3-Dichlorobenzene	ND	837	95.7
1,4-Dichlorobenzene	ND	837	116
2,4,5-Trichlorophenol	ND	3950	118
2,4,6-Trichlorophenol	ND	359	138
2,4-Dichlorophenol	ND	359	90.9
2,4-Dimethylphenol	ND	359	106
2,4-Dinitrophenol	ND	3950	67
2,4-Dinitrotoluene	ND	837	138
2,6-Dinitrotoluene	ND	837	117
2-Chloronaphthalene	ND	837	111
2-Chlorophenol	ND	359	81.3
2-Methylnaphthalene	ND	837	12[illegible]
2-Methylphenol	ND	359	1[illegible]
2-Nitroaniline	ND	3950	10[illegible]
2-Nitrophenol	ND	359	123
3,3'-Dichlorobenzidine	ND	1560	164
3-Nitroaniline	ND	3950	100
4,6-Dinitro-2-methylphenol	ND	3950	87.3
4-Bromophenyl phenyl ether	ND	837	124
4-Chloro-3-methylphenol	ND	1560	140
4-Chloroaniline	ND	1560	74.2
4-Chlorophenyl phenyl ether	ND	837	126
4-Methylphenol (1)	ND	359	81.3
4-Nitroaniline	ND	3950	104
4-Nitrophenol	ND	1910	6.7
Acenaphthene	ND	837	111
Acenaphthylene	ND	837	105
Anthracene	ND	837	123
Benzo(a)anthracene	ND	837	103
Benzo(a)pyrene	ND	837	109
Benzo(b)fluoranthene	ND	837	128
Benzo(k)fluoranthene	ND	837	120
Benzo(g,h,i)perylene	ND	837	111
Benzoic Acid	ND	1910	128
Benzyl alcohol	ND	1560	96.9
bis(2-Chloroethoxy)methane	ND	837	122

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A156502	DaTime Analyzd :	12/30/96 00:45
Lab Cnt NO.	: L039-31R	Dilutn Factor :	1
Lab File ID	: RLB336	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	16.4
Calib. Ref.	: RLB332	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	837	80.1
bis(2-Chloroisopropyl)ether	ND	837	108
bis(2-Ethylhexyl)phthalate	ND	837	117
Butylbenzylphthalate	ND	837	243
Chrysene	ND	837	120
Di-n-butylphthalate	ND	837	133
Di-n-octylphthalate	ND	837	108
Dibenzo(a,h)anthracene	ND	837	115
Dibenzofuran	ND	837	120
Diethylphthalate	ND	837	116
Dimethylphthalate	ND	837	128
Fluoranthene	ND	837	123
Fluorene	ND	837	104
Hexachlorobenzene	ND	837	134
Hexachlorobutadiene	ND	837	124
Hexachlorocyclopentadiene	ND	837	139
Hexachloroethane	ND	837	105
Indeno(1,2,3-cd)pyrene	ND	837	114
Isophorone	ND	837	111
n-Nitroso-di-n-propylamine	ND	837	136
n-Nitrosodiphenylamine (2)	ND	837	121
Naphthalene	ND	837	116
Nitrobenzene	ND	837	93.3
Pentachlorophenol	ND	3950	35.9
Phenanthrene	ND	837	121
Phenol	ND	359	93.3
Pyrene	ND	837	115

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	119	25-144
2-Fluorobiphenyl	82	34-135
2-Fluorophenol	77	25-135
Nitrobenzene-d5	85	25-135
Phenol-d5	75	25-135
Terphenyl-d14	83	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A161201	DaTime Analyzd :	12/24/96 00:06
Lab Cnt NO.:	L039-32	Dilutn Factor :	1
Lab File ID:	RLB234	Matrix :	SOIL
Ext Btch ID:	SVL008S	% Moisture :	12.6
Calib. Ref.:	RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	801	118
1,2-Dichlorobenzene	ND	801	126
1,3-Dichlorobenzene	ND	801	91.5
1,4-Dichlorobenzene	ND	801	111
2,4,5-Trichlorophenol	ND	3780	113
2,4,6-Trichlorophenol	ND	343	132
2,4-Dichlorophenol	ND	343	87
2,4-Dimethylphenol	ND	343	102
2,4-Dinitrophenol	ND	3780	64.1
2,4-Dinitrotoluene	ND	801	132
2,6-Dinitrotoluene	ND	801	112
2-Chloronaphthalene	ND	801	106
2-Chlorophenol	ND	343	77.8
2-Methylnaphthalene	ND	801	117
2-Methylphenol	ND	343	1
2-Nitroaniline	ND	3780	1
2-Nitrophenol	ND	343	118
3,3'-Dichlorobenzidine	ND	1490	157
3-Nitroaniline	ND	3780	96.1
4,6-Dinitro-2-methylphenol	ND	3780	83.5
4-Bromophenyl phenyl ether	ND	801	119
4-Chloro-3-methylphenol	ND	1490	134
4-Chloroaniline	ND	1490	70.9
4-Chlorophenyl phenyl ether	ND	801	120
4-Methylphenol (1)	ND	343	77.8
4-Nitroaniline	ND	3780	99.5
4-Nitrophenol	ND	1830	6.41
Acenaphthene	ND	801	106
Acenaphthylene	ND	801	101
Anthracene	ND	801	118
Benzo(a)anthracene	ND	801	98.4
Benzo(a)pyrene	ND	801	104
Benzo(b)fluoranthene	ND	801	122
Benzo(k)fluoranthene	ND	801	114
Benzo(g,h,i)perylene	ND	801	106
Benzoic Acid	ND	1830	122
Benzyl alcohol	ND	1490	92.7
bis(2-Chloroethoxy)methane	ND	801	117

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A161201	DaTime Analyzd :	12/24/96 00:06
Lab Cnt NO.	: L039-32	Dilutn Factor :	1
Lab File ID	: RLB234	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	12.6
Calib. Ref.	: RLB220	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	801	76.7
bis(2-Chloroisopropyl)ether	ND	801	103
bis(2-Ethylhexyl)phthalate	ND	801	112
Butylbenzylphthalate	ND	801	232
Chrysene	ND	801	114
Di-n-butylphthalate	ND	801	127
Di-n-octylphthalate	ND	801	103
Dibenzo(a,h)anthracene	ND	801	110
Dibenzofuran	ND	801	114
Diethylphthalate	ND	801	111
Dimethylphthalate	ND	801	122
Fluoranthene	ND	801	118
Fluorene	ND	801	99.5
Hexachlorobenzene	ND	801	128
Hexachlorobutadiene	ND	801	119
Hexachlorocyclopentadiene	ND	801	133
Hexachloroethane	ND	801	101
Indeno(1,2,3-cd)pyrene	ND	801	109
Isophorone	ND	801	106
N-Nitroso-di-n-propylamine	ND	801	130
N-Nitrosodiphenylamine (2)	ND	801	116
Naphthalene	ND	801	111
Nitrobenzene	ND	801	89.2
Pentachlorophenol	ND	3780	34.3
Phenanthrene	ND	801	116
Phenol	ND	343	89.2
Pyrene	ND	801	110

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	86	25-144
2-Fluorobiphenyl	72	34-135
2-Fluorophenol	73	25-135
Nitrobenzene-d5	73	25-135
Phenol-d5	73	25-135
Terphenyl-d14	66	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

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SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/12/96
Batch No.	: 96L039	DaTime Extrctd	: 12/12/96 15:00
Sample ID	: CR-A161202	DaTime Analyzd	: 12/24/96 04:36
Lab Cnt NO.	: L039-33	Dilutn Factor	: 1
Lab File ID	: RLB243	Matrix	: SOIL
Ext Btch ID	: SVL008S	% Moisture	: 15.3
Calib. Ref.	: RLB240	Instrument ID	: MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	826	122
1,2-Dichlorobenzene	ND	826	130
1,3-Dichlorobenzene	ND	826	94.5
1,4-Dichlorobenzene	ND	826	115
2,4,5-Trichlorophenol	ND	3900	117
2,4,6-Trichlorophenol	ND	354	136
2,4-Dichlorophenol	ND	354	89.7
2,4-Dimethylphenol	ND	354	105
2,4-Dinitrophenol	ND	3900	66.1
2,4-Dinitrotoluene	ND	826	136
2,6-Dinitrotoluene	ND	826	116
2-Chloronaphthalene	ND	826	110
2-Chlorophenol	ND	354	80.3
2-Methylnaphthalene	ND	826	120
2-Methylphenol	ND	354	[illegible]
2-Nitroaniline	ND	3900	[illegible]
2-Nitrophenol	ND	354	122
3,3'-Dichlorobenzidine	ND	1530	162
3-Nitroaniline	ND	3900	99.2
4,6-Dinitro-2-methylphenol	ND	3900	86.2
4-Bromophenyl phenyl ether	ND	826	123
4-Chloro-3-methylphenol	ND	1530	138
4-Chloroaniline	ND	1530	73.2
4-Chlorophenyl phenyl ether	ND	826	124
4-Methylphenol (1)	ND	354	80.3
4-Nitroaniline	ND	3900	103
4-Nitrophenol	ND	1890	6.61
Acenaphthene	ND	826	110
Acenaphthylene	ND	826	104
Anthracene	ND	826	122
Benzo(a)anthracene	ND	826	102
Benzo(a)pyrene	ND	826	107
Benzo(b)fluoranthene	ND	826	126
Benzo(k)fluoranthene	ND	826	118
Benzo(g,h,i)perylene	ND	826	110
Benzoic Acid	ND	1890	126
Benzyl alcohol	ND	1530	95.6
bis(2-Chloroethoxy)methane	ND	826	120

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A161202	DaTime Analyzd :	12/24/96 04:36
Lab Cnt NO.	: L039-33	Dilutn Factor :	1
Lab File ID	: RLB243	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	15.3
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	826	79.1
bis(2-Chloroisopropyl)ether	ND	826	106
bis(2-Ethylhexyl)phthalate	ND	826	116
Butylbenzylphthalate	ND	826	240
Chrysene	ND	826	118
Di-n-butylphthalate	ND	826	131
Di-n-octylphthalate	ND	826	106
Dibenzo(a,h)anthracene	ND	826	113
Dibenzofuran	ND	826	118
Diethylphthalate	ND	826	115
Dimethylphthalate	ND	826	126
Fluoranthene	ND	826	122
Fluorene	ND	826	103
Hexachlorobenzene	ND	826	132
Hexachlorobutadiene	ND	826	123
Hexachlorocyclopentadiene	ND	826	137
Hexachloroethane	ND	826	104
Indeno(1,2,3-cd)pyrene	ND	826	112
Isophorone	ND	826	110
n-Nitroso-di-n-propylamine	ND	826	135
n-Nitrosodiphenylamine (2)	ND	826	119
Naphthalene	ND	826	115
Nitrobenzene	ND	826	92.1
Pentachlorophenol	ND	3900	35.4
Phenanthrene	ND	826	119
Phenol	ND	354	92.1
Pyrene	ND	826	113

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	87	25-144
2-Fluorobiphenyl	75	34-135
2-Fluorophenol	72	25-135
Nitrobenzene-d5	75	25-135
Phenol-d5	73	25-135
Terphenyl-d14	71	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

410 803

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A161204	DaTime Analyzd :	12/24/96 05:23
Lab Cnt NO.:	L039-35	Dilutn Factor :	1
Lab File ID:	RLB244	Matrix :	SOIL
Ext Btch ID:	SVL008S	% Moisture :	15.7
Calib. Ref.:	RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
1,2,4-Trichlorobenzene	ND	830	122
1,2-Dichlorobenzene	ND	830	130
1,3-Dichlorobenzene	ND	830	94.9
1,4-Dichlorobenzene	ND	830	115
2,4,5-Trichlorophenol	ND	3910	117
2,4,6-Trichlorophenol	ND	356	136
2,4-Dichlorophenol	ND	356	90.2
2,4-Dimethylphenol	ND	356	106
2,4-Dinitrophenol	ND	3910	66.4
2,4-Dinitrotoluene	ND	830	136
2,6-Dinitrotoluene	ND	830	116
2-Chloronaphthalene	ND	830	110
2-Chlorophenol	ND	356	80.7
2-Methylnaphthalene	ND	830	121
2-Methylphenol	ND	356	
2-Nitroaniline	ND	3910	[illegible]
2-Nitrophenol	ND	356	122
3,3'-Dichlorobenzidine	ND	1540	163
3-Nitroaniline	ND	3910	99.6
4,6-Dinitro-2-methylphenol	ND	3910	86.6
4-Bromophenyl phenyl ether	ND	830	123
4-Chloro-3-methylphenol	ND	1540	139
4-Chloroaniline	ND	1540	73.5
4-Chlorophenyl phenyl ether	ND	830	125
4-Methylphenol (1)	ND	356	80.7
4-Nitroaniline	ND	3910	103
4-Nitrophenol	ND	1900	6.64
Acenaphthene	ND	830	110
Acenaphthylene	ND	830	104
Anthracene	ND	830	122
Benzo(a)anthracene	ND	830	102
Benzo(a)pyrene	ND	830	108
Benzo(b)fluoranthene	ND	830	127
Benzo(k)fluoranthene	ND	830	119
Benzo(g,h,i)perylene	ND	830	110
Benzoic Acid	ND	1900	127
Benzyl alcohol	ND	1540	96.1
bis(2-Chloroethoxy)methane	ND	830	121

SW 3550A/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/12/96 15:00
Sample ID	: CR-A161204	DaTime Analyzd :	12/24/96 05:23
Lab Cnt NO.	: L039-35	Dilutn Factor :	1
Lab File ID	: RLB244	Matrix :	SOIL
Ext Btch ID	: SVL008S	% Moisture :	15.7
Calib. Ref.	: RLB240	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/kg)	PQL (ug/kg)	MDL (ug/kg)
bis(2-Chloroethyl)ether	ND	830	79.5
bis(2-Chloroisopropyl)ether	ND	830	107
bis(2-Ethylhexyl)phthalate	ND	830	116
Butylbenzylphthalate	ND	830	241
Chrysene	ND	830	119
Di-n-butylphthalate	ND	830	132
Di-n-octylphthalate	ND	830	107
Dibenzo(a,h)anthracene	ND	830	114
Dibenzofuran	ND	830	119
Diethylphthalate	ND	830	115
Dimethylphthalate	ND	830	127
Fluoranthene	ND	830	122
Fluorene	ND	830	103
Hexachlorobenzene	ND	830	133
Hexachlorobutadiene	ND	830	123
Hexachlorocyclopentadiene	ND	830	138
Hexachloroethane	ND	830	104
Indeno(1,2,3-cd)pyrene	ND	830	113
Isophorone	ND	830	110
n-Nitroso-di-n-propylamine	ND	830	135
n-Nitrosodiphenylamine (2)	ND	830	120
Naphthalene	ND	830	115
Nitrobenzene	ND	830	92.5
Pentachlorophenol	ND	3910	35.6
Phenanthrene	ND	830	120
Phenol	ND	356	92.5
Pyrene	ND	830	114

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	83	25-144
2-Fluorobiphenyl	72	34-135
2-Fluorophenol	66	25-135
Nitrobenzene-d5	68	25-135
Phenol-d5	67	25-135
Terphenyl-d14	70	32-136

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/12/96
Batch No.	: 96L039	DaTime Extrctd :	12/13/96 15:30
Sample ID	: CR-A161207	DaTime Analyzd :	12/19/96 21:03
Lab Cnt NO.	: L039-38	Dilutn Factor :	1
Lab File ID	: RLB141	Matrix :	WATER
Ext Btch ID	: SVL009W	% Moisture :	NA
Calib. Ref.	: RLB129	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3
2-Nitroaniline	ND	50	3
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

410 806

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted	: 12/11/96
Project	: CARSWELL AFB / 05G47900	DaTime Received	: 12/12/96
Batch No.	: 96L039	DaTime Extrctd	: 12/13/96 15:30
Sample ID	: CR-A161207	DaTime Analyzd	: 12/19/96 21:03
Lab Cnt NO.	: L039-38	Dilutn Factor	: 1
Lab File ID	: RLB141	Matrix	: WATER
Ext Btch ID	: SVL009W	% Moisture	: NA
Calib. Ref.	: RLB129	Instrument ID	: MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1.6
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	86	25-134
2-Fluorobiphenyl	75	43-125
2-Fluorophenol	70	25-125
Nitrobenzene-d5	77	32-125
Phenol-d5	72	25-125
Terphenyl-d14	72	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

TAB

EMAX Batch No. 96L051

410 808

File: 17A-76
A.F. 412

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

RECEIVED
JAN 06 1997
JE Denver

Date: 01-03-1997
EMAX Batch No.: 96L051

Attn: Lynn Schuetter

Jacobs Engineering Group
600 17th. Street, Ste. 1100N
Denver CO 80202

Subject: Laboratory Report
Project: Carswell AFB / 05G47900

Enclosed is the Laboratory report for samples received on 12/14/96. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
CR-A160701	L051-01	12/13/96	Water	EPA 8240
CR-A160701MS	L051-01M	12/13/96	Water	EPA 8240
CR-A160701MSD	L051-01S	12/13/96	Water	EPA 8240
CR-A160702	L051-02	12/13/96	Water	EPA 8270
CR-A160702MS	L051-02M	12/13/96	Water	EPA 8270
CR-A160702MSD	L051-02S	12/13/96	Water	EPA 8270
CR-A160703	L051-03	12/13/96	Water	Metals Mercury
CR-A160703MS	L051-03M	12/13/96	Water	Metals Mercury
CR-A160703DUP	L051-03D	12/13/96	Water	Metals Mercury
CR-A160704	L051-04	12/13/96	Water	Metals Mercury
CR-A160705	L051-05	12/13/96	Water	EPA 8240
CR-A160706	L051-06	12/13/96	Water	EPA 8270
CR-A160707	L051-07	12/13/96	Water	Metals Mercury
CR-A160801	L051-08	12/12/96	Water	EPA 8240

Sample ID	Control #	Col Date	Matrix	Analysis
CR-A160802	L051-09	12/12/96	Water	EPA 8270
CR-A160803	L051-10	12/12/96	Water	Metals Mercury
CR-A160804	L051-11	12/12/96	Water	Metals Mercury
CR-A160804MS	L051-11M	12/12/96	Water	Metals Mercury
CR-A160804DUP	L051-11D	12/12/96	Water	Metals Mercury
CR-A160805	L051-12	12/12/96	Water	EPA 8240
CR-A160806	L051-13	12/12/96	Water	EPA 8270
CR-A160807	L051-14	12/12/96	Water	Metals Mercury
CR-A161101	L051-15	12/12/96	Water	EPA 8240
CR-A161102	L051-16	12/12/96	Water	EPA 8270
CR-A161103	L051-17	12/12/96	Water	Metals Mercury
CR-A161104	L051-18	12/12/96	Water	Metals Mercury
CR-A161108	L051-19	12/13/96	Water	EPA 8240
CR-A160001	L051-20	12/14/96	Water	EPA 8240
CR-A160001MS	L051-20M	12/14/96	Water	EPA 8240
CR-A160001MSD	L051-20S	12/14/96	Water	EPA 8240
CR-A160002	L051-21	12/14/96	Water	EPA 8270
CR-A160002MS	L051-21M	12/14/96	Water	EPA 8270
CR-A160002MSD	L051-21S	12/14/96	Water	EPA 8270
CR-A160003	L051-22	12/14/96	Water	Metals Mercury
CR-A160004	L051-23	12/14/96	Water	Metals Mercury
CR-A160004MS	L051-23M	12/14/96	Water	Metals Mercury
CR-A160004DUP	L051-23D	12/14/96	Water	Metals Mercury
CR-A160005	L051-24	12/16/96	Water	EPA 8240
CR-A160201	L051-25	12/14/96	Water	EPA 8240
CR-A160202	L051-26	12/14/96	Water	EPA 8270
CR-A160203	L051-27	12/14/96	Water	Metals Mercury
CR-A160204	L051-28	12/14/96	Water	Metals Mercury

Sample ID	Control #	Col Date	Matrix	Analysis
CR-A160205	L051-29	12/14/96	Water	EPA 8240
CR-A160206	L051-30	12/14/96	Water	EPA 8270
CR-A160207	L051-31	12/14/96	Water	Metals Mercury
CR-A160301	L051-32	12/14/96	Water	EPA 8240
CR-A160302	L051-33	12/14/96	Water	EPA 8270
CR-A160303	L051-34	12/14/96	Water	Metals Mercury
CR-A160304	L051-35	12/14/96	Water	Metals Mercury
CR-A160305	L051-36	12/14/96	Water	EPA 8240

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

SAMPLE RECEIPT FORM

CONTROL NO.	96L051
CLIENT	JACOBS ENGR.
PROJECT	CARSWELL AFB D021

DATE	12-14-96
TIME	9:00 AM
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO EMAX LABORATORY.		BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY EMAX COURIER						
DELIVERED BY CLIENT ✓						
SHIPPED/AIRBILL NO:	FEDEX ADTNS 2963020815 / MPS	989 6954	566	SEE	AIRBILL	

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:			✓ INTACT	___DAMAGED	___SEALED	✓ NOT SEALED	___NO CONTAINER
CONTAINER:	INSIDE TEMPERATURE (4°C ± 2°C)	2° °C		CUSTODY SEAL		LOCATION	NUMBER
2 COOLERS	PACKAGING	TYPE	SUFFICIENCY	___INTACT	___DAMAGED		
___BOX	INSULATION:		OK	NAME:			
___OTHER:	ICE/COOLANT:	REGULAR		DATE:			
_____	PACKING MATERIAL:	BUBBLE PAK STYRO		TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	___SEALED	✓ ENCLOSED	___HANDCARRIED	___FAXED	___MAILED

SAMPLE LOG-IN:		CRITERIA	COMMENTS			DISCREPANCY	
SAMPLE CUSTODY SEAL		EVERY SAMPLE	NONE				
CONTAINER TYPE/MATERIAL		APPROPRIATE	OK				
SAMPLE AMOUNT		ENOUGH					
HOLDING TIME		SUFFICENT					
SAMPLE PRESERVATION (For appropriate preservative see GP-0001 Appendix I)		NaOH preserved samples pH ≥ 12 HNO_3 / H_2SO_4 preserved samples pH ≤ 2					
HEADSPACE/BUBBLES		ZERO/NONE					
SAMPLE LABEL INFORMATION		SUFFICIENT					
CHAIN-OF-CUSTODY INFORMATION		SUFFICIENT					
SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER

INDIVIDUAL SAMPLE CONTAINER:	___NONE	✓ SEALED PLASTIC BAG	___CAN	___OTHER(SPECIFY): _____

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION

CLIENT SERVICES COPY RECEIVED BY	[illegible signature] 12/16/96	DATE		TIME	

410 811

SAMPLE RECEIPT FORM

CONTROL NO.	96L051
CLIENT	THOMS ENK
PROJECT	CARSWELL AFB D021

DATE	12-17-96
TIME	10:15
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO EMAX LABORATORY:	BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY EMAX COURIER					
DELIVERED BY CLIENT					
SHIPPED/AIRBILL NO:					

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:			✓ INTACT	___ DAMAGED	✓ SEALED	___ NOT SEALED	___ NO CONTAINER
CONTAINER:	INSIDE TEMPERATURE (4°C ± 2°C)		2° °C	CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	___ DAMAGED	FRONT CLOSURE	1
___ BOX	INSULATION:			NAME:	SEE COC	REAR CLOSURE	1
___ OTHER:	ICE/COOLANT:	REGULAR	OK	DATE:			
___	PACKING MATERIAL:	BUBBLE PAK		TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	___ SEALED	✓ ENCLOSED	___ HANDCARRIED	___ FAXED	___ MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH	↓	
HOLDING TIME	SUFFICENT	↓	
SAMPLE PRESERVATION (For appropriate preservative see GP-0001 Appendix II)	NaOH preserved samples pH ≥ 12 HNO_3 / H_2SO_4 preserved samples pH ≤ 2	SEE BELOW	
HEADSPACE/BUBBLES	ZERO/NONE	OK	
SAMPLE LABEL INFORMATION	SUFFICIENT	↓	
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT	↓	

SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER
	—	—	—	—	—	—	—

INDIVIDUAL SAMPLE CONTAINER: ___ NONE ✓ SEALED PLASTIC BAG ___ CAN ___ OTHER(SPECIFY): BUBBLE PAK

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION
27	CR-A160203	REC'D 500 ML HDPE PRES/HNO3 LABEL	Analyze per
		BUT PH IS 5 (HIGHER THAN TWO)	
22	CR-A160003	REC'D 1L HDPE PRES/HNO3 LABEL BUT	
		PH IS (7) SEVEN SHOULD BE < 2.	Dan Shultz 12/19/96

CLIENT SERVICES COPY RECEIVED BY: [signature] 12/19/96 DATE: TIME:

410 812

2 Coolers

MPS 989 6954 566 2963020815 96L051 12-14-96 9:00AM Y

12/13/96 1605-0792-6

DAN SCHULTZ 817 239-1768

JACOBS ENGINEERING

6560 WHITE SETTLEMENT RD.

FT WORTH TX 76114

05G47900-50501

SAMPLE RECEIVING 310 618-8889

EMAX LABORATORIES INC

630 MAPLE AVE

TORRANCE CA 90503

2 109

2 9 6 3 0 2 0 8 1 5

272

410 813

410 811

FedEx *USA Airbill* Tracking Number 2963020804

962051
12-17-96
10:15 am

Recipient's Copy

1 From

Date 12/16/96 MPS 989 6954 961

Sender's Name DAN SCHULTZ Phone (303) 620-8410

Dept./Floor/Suite/Room

Company JACOBS ENGINEERING

Address 600 17TH ST #1100N

City DENVER State CO Zip 80202

2 Your Internal Billing Reference Information 05G47900-50501

3 To

Recipient's Name SAMPLE RECEIVING Phone (310) 618-8889

Dept./Floor/Suite/Room

Company EMAX LABORATORIES

Address 630 MAPLE AVE.

(To "HOLD" at FedEx location, print FedEx address here)

City TORRANCE State CA Zip 90503

For HOLD at FedEx Location check here

☐ Hold Weekday (Not available with FedEx First Overnight)

☐ Hold Saturday (Not available at all locations) (Not available with FedEx First Overnight or FedEx Standard Overnight)

For Saturday Delivery check here

☐ (Extra Charge. Not available to all locations) (Not available with FedEx First Overnight or FedEx Standard Overnight)

4a Express Package Service *Packages under 150 lbs.*

Delivery commitment may be later in some areas

☒ FedEx Priority Overnight (Next business morning)

☐ FedEx Standard Overnight (Next business afternoon)

☐ FedEx 2Day* (Second business day)

☐ NEW FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply)

*FedEx Letter Rate not available. Minimum charge: One pound FedEx 2Day rate

4b Express Freight Service *Packages over 150 lbs.*

Delivery commitment may be later in some areas

☐ FedEx Overnight Freight (Next business day service for any distance)

☐ FedEx 2Day Freight (Second business day service for any distance)

☐ FedEx Express Saver Freight (Up to 3 business day service based upon distance)

(Call for delivery schedule. See back for detailed descriptions of freight products.)

5 Packaging

☐ FedEx Letter ☐ FedEx Pak (Declared value limit $500) ☐ FedEx Box ☐ FedEx Tube ☒ Other Pkg.

6 Special Handling

Does this shipment contain dangerous goods? ☐ Yes (Shipper's Declaration required) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice — Dry Ice, 9, UN 1845 III ____ x ____ kg 904 (Dangerous Goods Shipper's Declaration not required)

CA ☐ Cargo Aircraft Only

7 Payment

☐ Obtain Recipient FedEx Account No.

Bill to: ☒ Sender (Account no. on airbill will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx account no. or Credit Card no. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
2	113	$ .00	$

*When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

Questions?
Call 1-800-Go-FedEx
(1-800-463-3339)

272

Rev. Date 6/96 PART #121... FTN...

2 9 6 3 0 2 0 8 0 4

410 815

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JAN 06 1997
JE - Denver

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP, INC.

CARSWELL AFB / 05G47900

METALS

SDG#: 96L051

JANUARY 03, 1997

RECEIVED
JAN 06 1997
JE - Denver

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

METALS

Fifteen (15) water samples were received on 12/14/96 to be analyzed for metals analysis by ICP method in accordance with USEPA SW846 method 6010A. Antimony, silver, selenium, and nickel were analyzed by GFAA.

1. **Holding Time**

   Digestion and analysis met holding time criteria.

2. **Blank**

   Trace amount of some elements chromium, iron, vanadium, and sodium were found in water blank IP026WB and aluminum, iron,sodium, and vanadium in water blank IP024WB. All detected levels were below PQL.

3. **Matrix Spike/Matrix Spike Duplicate**

   Three sets of MS/MSD, L051-03, L051-11, L051-23, were designated. All recoveries were within QC limits except potassium, arsenic, cadmium, and lead in L051-03MS, calcium and lead in L051-03MSD; calcium and lead in L051-11MS, arsenic, cadmium, and lead in L051-11MSD; lead in both L051-23MS/MSD.

4. **Lab Control Sample/Lab Control Duplicate**

   All lab control results were within the control limits.

5. **Calibration**

   All initial and continuing calibration results were within QC criteria except absolute value of calcium in CCB2 and CCB3 in file I07L030 (associated with samples L051-03, 04, 07, 10, 11) was higher than PQL; absolute value of magnesium in CCB3 in file I07L030 (associated with samples L051-04, 07, 10, 11) was higher than PQL; and high recovery of sodium in CCV6 file I07L030 (associated with samples L051-34 and L051-35).

6. Sample Analysis

Arsenic, lead, and cadmium were analyzed by Trace-ICP, antimony, nickel, silver, and selenium by GFAA, and all others metals by ICP.

Several serial dilution were out of QC limits, post analytical spike of all failed serial dilutions were within QC limits.

1 - As, Pb, Cd were analyzed on 12/27/96 File I31L037 410 818
- Co, Al in L051-14 to L051-35 were analyzed on 12/30/96
File I07L036 (including IPLC26 WB/WL/WC,
LC23 M/S/T/A/B)

12/17/1996 10:18

LAB CHRONICLE
Metals

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

LDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160703	L051-03	NA	IPLC24W/12/18/96/1400	I07L030/12/27/96		*
CR-A160703MS	L051-03M	NA				
CR-A160703DUP	L051-03D	NA				
CR-A160704	L051-04	NA				
CR-A160707	L051-07	NA				
CR-A160803	L051-10	NA				
CR-A160804	L051-11	NA				
CR-A160804MS	L051-11M	NA				
CR-A160804DUP	L051-11D	NA				
CR-A160807	L051-14	NA				
CR-A161103	L051-17	NA				
CR-A161104	L051-18	NA				
	L051-22		↓			
	L051-23		IPLC24W/12/18/96/14.00			
	L051-23M		↓			
	L051-23S		↓			
	L051-27		IPLC24W/12/18/96/14.00			
	L051-28		↓			
	L051-31		↓			
	L051-34		IPLC26W/12/18/96/14.00			
	L051-35		↓			
MBLK1W	IPLC24WB		IPLC24W/12/18/96/14.00			
LCS1	↓ WL		↓			
LCD1	WC					003
MBLK2W	IPC026WB		IPLC26W/12/18/96/14.00			
LCS2	WL		↓			

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160703	DaTime Analyzd :	12/27/96 14:01
Lab Cnt NO.:	L051-03	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.294F	.5	.0122
Barium	.0657	.02	.001
Beryllium	ND	.003	.0003
Calcium	102	.1	.0222
Chromium	.0136F	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.262	.07	.0035
Magnesium	4.2	.3	.0342
Manganese	.0393	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	10.2	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00844F	.08	.0029
Zinc	.0108F	.02	.0039

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160703	DaTime Analyzd :	12/27/96 13:56
Lab Cnt NO.:	L051-03	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160704	DaTime Analyzd :	12/27/96 15:17
Lab Cnt NO.:	L051-04	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.042F	.5	.0122
Barium	.0639	.02	.001
Beryllium	ND	.003	.0003
Calcium	119	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0259F	.07	.0035
Magnesium	5.54	.3	.0342
Manganese	.00363F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.664F	5	.466
Sodium	17.9	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00314F	.08	.0029
Zinc	ND	.02	.0039

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160704	DaTime Analyzd :	12/27/96 14:20
Lab Cnt NO.:	L051-04	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160707	DaTime Analyzd :	12/27/96 15:21
Lab Cnt NO.:	L051-07	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.955	.5	.0122
Barium	.0676	.02	.001
Beryllium	ND	.003	.0003
Calcium	102	.1	.0222
Chromium	.0124F	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.242	.07	.0035
Magnesium	4.03	.3	.0342
Manganese	.0517	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.488F	5	.466
Sodium	3.96	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00699F	.08	.0029
Zinc	.0312	.02	.0039

SW3005A/6010A
TRACE BY ICP

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
roject	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160707	DaTime Analyzd :	12/27/96 15:18
Lab Cnt NO.	: L051-07	Dilutn Factor :	1
Lab File ID	: I31L037	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	.00196F	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160803	DaTime Analyzd :	12/27/96 15:25
Lab Cnt NO.:	L051-10	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.204F	.5	.0122
Barium	.0979	.02	.001
Beryllium	ND	.003	.0003
Calcium	864	.1	.0222
Chromium	.00942F	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.506	.07	.0035
Magnesium	14.6	.3	.0342
Manganese	.902	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	1.4F	5	.466
Sodium	14.2	.3	.05
Thallium	ND	.4	.0632
Vanadium	ND	.08	.0029
Zinc	.00886F	.02	.0039

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160803	DaTime Analyzd :	12/27/96 15:22
Lab Cnt NO.	: L051-10	Dilutn Factor :	1
Lab File ID	: I31L037	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160804	DaTime Analyzd :	12/27/96 15:28
Lab Cnt NO.:	L051-11	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.0527F	.5	.0122
Barium	.0622	.02	.001
Beryllium	ND	.003	.0003
Calcium	184	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.02F	.07	.0035
Magnesium	9.19	.3	.0342
Manganese	.0179F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	1.36F	5	.466
Sodium	15.6	.3	.05
Thallium	ND	.4	.0632
Vanadium	ND	.08	.0029
Zinc	.00785F	.02	.0039

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160804	DaTime Analyzd :	12/27/96 15:26
Lab Cnt NO.:	L051-11	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

410 829

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160807	DaTime Analyzd :	12/27/96 16:00
Lab Cnt NO.	: L051-14	Dilutn Factor :	1
Lab File ID	: I07L030	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.503	.5	.0122
Barium	ND	.02	.001
Beryllium	ND	.003	.0003
Calcium*	ND	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0302F	.07	.0035
Magnesium	ND	.3	.0342
Manganese	.00157F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	.199F	.3	.05
Thallium	ND	.4	.0632
Vanadium	ND	.08	.0029
Zinc	.0126F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160807	DaTime Analyzd :	12/27/96 15:50
Lab Cnt NO.:	L051-14	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A161103	DaTime Analyzd :	12/27/96 16:04
Lab Cnt NO.:	L051-17	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.8	.5	.0122
Barium	.16	.02	.001
Beryllium	ND	.003	.0003
Calcium*	447	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.493	.07	.0035
Magnesium	7.32	.3	.0342
Manganese	.274	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	11.1	.3	.05
Thallium	ND	.4	.0632
Vanadium	.0111F	.08	.0029
Zinc	.0114F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A161103	DaTime Analyzd :	12/27/96 15:53
Lab Cnt NO.:	L051-17	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

410 833

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A161104	DaTime Analyzd :	12/27/96 16:08
Lab Cnt NO.:	L051-18	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.501	.5	.0122
Barium	.132	.02	.001
Beryllium	ND	.003	.0003
Calcium*	186	.1	.0222
Chromium	.0064F	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0416F	.07	.0035
Magnesium	6.01	.3	.0342
Manganese	.0019F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.504F	5	.466
Sodium	14	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00316F	.08	.0029
Zinc	.00876F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A161104	DaTime Analyzd :	12/27/96 15:57
Lab Cnt NO.	: L051-18	Dilutn Factor :	1
Lab File ID	: I31L037	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160003	DaTime Analyzd :	12/27/96 16:11
Lab Cnt NO.:	L051-22	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.302F	.5	.0122
Barium	.151	.02	.001
Beryllium	ND	.003	.0003
Calcium*	374	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.208	.07	.0035
Magnesium	6.25	.3	.0342
Manganese	.22	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.797F	5	.466
Sodium	10.5	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00639F	.08	.0029
Zinc	.0056F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160003	DaTime Analyzd :	12/27/96 16:18
Lab Cnt NO.:	L051-22	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

410 837

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160004	DaTime Analyzd :	12/27/96 17:08
Lab Cnt NO.:	L051-23	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.0139F	.5	.0122
Barium	.118	.02	.001
Beryllium	ND	.003	.0003
Calcium*	169	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0314F	.07	.0035
Magnesium	4.97	.3	.0342
Manganese	.00509F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.71F	5	.466
Sodium	14.9	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00581F	.08	.0029
Zinc	.00808F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160004	DaTime Analyzd :	12/27/96 17:08
Lab Cnt NO.:	L051-23	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

410 839

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160203	DaTime Analyzd :	12/27/96 16:15
Lab Cnt NO.:	L051-27	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.6	.5	.0122
Barium	.197	.02	.001
Beryllium	ND	.003	.0003
Calcium*	876	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	1.16	.07	.0035
Magnesium	12	.3	.0342
Manganese	.462	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.693F	5	.466
Sodium	16.6	.3	.05
Thallium	ND	.4	.0632
Vanadium	.0112F	.08	.0029
Zinc	ND	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160203	DaTime Analyzd :	12/27/96 16:22
Lab Cnt NO.:	L051-27	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	.000492F	.001	.00046
Lead	ND	.005	.0016

410 841

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160204	DaTime Analyzd :	12/27/96 16:19
Lab Cnt NO.	: L051-28	Dilutn Factor :	1
Lab File ID	: I07L030	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.1F	.5	.0122
Barium	.12	.02	.001
Beryllium	ND	.003	.0003
Calcium*	169	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0333F	.07	.0035
Magnesium	5.52	.3	.0342
Manganese	.00584F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.568F	5	.466
Sodium	16.3	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00303F	.08	.0029
Zinc	.0103F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160204	DaTime Analyzd :	12/27/96 16:26
Lab Cnt NO.:	L051-28	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

410 843

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160207	DaTime Analyzd :	12/27/96 16:22
Lab Cnt NO.	: L051-31	Dilutn Factor :	1
Lab File ID	: I07L030	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.0908F	.5	.0122
Barium	ND	.02	.001
Beryllium	ND	.003	.0003
Calcium*	.452	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0142F	.07	.0035
Magnesium	ND	.3	.0342
Manganese	ND	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	.173F	.3	.05
Thallium	ND	.4	.0632
Vanadium	ND	.08	.0029
Zinc	ND	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160207	DaTime Analyzd :	12/27/96 16:30
Lab Cnt NO.:	L051-31	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	.00179F	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160303	DaTime Analyzd :	12/27/96 17:53
Lab Cnt NO.:	L051-34	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.577	.5	.0122
Barium	.132	.02	.001
Beryllium	ND	.003	.0003
Calcium*	239	.1	.0222
Chromium	.00565F	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.668	.07	.0035
Magnesium	7.25	.3	.0342
Manganese	.0882	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	.993F	5	.466
Sodium	24.1	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00495F	.08	.0029
Zinc	.00624F	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160303	DaTime Analyzd :	12/27/96 17:31
Lab Cnt NO.:	L051-34	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160304	DaTime Analyzd :	12/27/96 17:57
Lab Cnt NO.:	L051-35	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	.0257F	.5	.0122
Barium	.12	.02	.001
Beryllium	ND	.003	.0003
Calcium*	150	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0273F	.07	.0035
Magnesium	6.44	.3	.0342
Manganese	.00822F	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	24.6	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00353F	.08	.0029
Zinc	.0487	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: CR-A160304	DaTime Analyzd :	12/27/96 17:35
Lab Cnt NO.:	L051-35	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

410 849

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/18/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: MBLK1W	DaTime Analyzd :	12/27/96 13:34
Lab Cnt NO.:	IPL024WB	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL024W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum	.0482F	.5	.0122
Barium	ND	.02	.001
Beryllium	ND	.003	.0003
Calcium	ND	.1	.0222
Chromium	ND	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0193F	.07	.0035
Magnesium	ND	.3	.0342
Manganese	ND	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	.216F	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00496F	.08	.0029
Zinc	ND	.02	.0039

SW3005A/6010A
TRACE BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/18/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: MBLK1W	DaTime Analyzd :	12/27/96 13:43
Lab Cnt NO.	: IPL024WB	Dilutn Factor :	1
Lab File ID	: I31L037	Matrix :	WATER
Ext Btch ID	: IPL024W	% Moisture :	NA
Calib. Ref.	: I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW3005A/6010A
METALS BY ICP

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/18/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: MBLK2W	DaTime Analyzd :	12/27/96 16:55
Lab Cnt NO.:	IPL026WB	Dilutn Factor :	1
Lab File ID:	I07L030	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I07L030	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Aluminum*	ND	.5	.0122
Barium	ND	.02	.001
Beryllium	ND	.003	.0003
Calcium*	ND	.1	.0222
Chromium	.00679F	.07	.0053
Cobalt	ND	.07	.0089
Copper	ND	.06	.0008
Iron	.0264F	.07	.0035
Magnesium	ND	.3	.0342
Manganese	ND	.02	.0013
Molybdenum	ND	.08	.0144
Potassium	ND	5	.466
Sodium	.216F	.3	.05
Thallium	ND	.4	.0632
Vanadium	.00589F	.08	.0029
Zinc	ND	.02	.0039

*: Analyzed on 12/30/96, I07L036 Cal. Ref.

SW3005A/6010A
TRACE BY ICP

410 852

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	NA
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/18/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 14:00
Sample ID	: MBLK2W	DaTime Analyzd :	12/27/96 16:55
Lab Cnt NO.:	IPL026WB	Dilutn Factor :	1
Lab File ID:	I31L037	Matrix :	WATER
Ext Btch ID:	IPL026W	% Moisture :	NA
Calib. Ref.:	I31L037	Instrument ID :	EMAXTI07

PARAMETERS	RESULTS (mg/L)	PQL (mg/L)	MDL (mg/L)
Arsenic	ND	.005	.0049
Cadmium	ND	.001	.00046
Lead	ND	.005	.0016

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
ect	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
n No.	: 96L051	DaTime Extrctd :	12/23/96 11:52
ple ID	: CR-A160701	DaTime Analyzd :	12/23/96 11:52
ab Cnt NO.	: L051-01	Dilutn Factor :	1
ab File ID	: RLP475	Matrix :	WATER
xt Btch ID	: VOL2802	% Moisture :	NA
Calib. Ref.	: RLP470	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
cetone	ND	100	2.18
enzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
Bromomethane	ND	10	.721
arbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
hlorobenzene	ND	5	.345
hloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
ibromochloromethane	ND	5	.317
thylbenzene	ND	5	.428
Methylene Chloride	1.78F	5	.771
Xylenes	ND	10	.71
ene	ND	5	.26
ne	ND	5	.263
etrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
ans-1,3-Dichloropropene	ND	5	.171
ichloroethene	ND	5	.325
nyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

IRROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	89	79-118
romofluorobenzene	96	86-115
Toluene-d8	96	88-110

L: Practical Quantitation Limit
CWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 13:16
Sample ID	: CR-A160705	DaTime Analyzd :	12/23/96 13:16
Lab Cnt NO.:	L051-05	Dilutn Factor :	1
Lab File ID:	RLP478	Matrix :	WATER
Ext Btch ID:	VOL2802	% Moisture :	NA
Calib. Ref.:	RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	4.17F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	93	79-118
Bromofluorobenzene	100	86-115
Toluene-d8	94	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
h No.	: 96L051	DaTime Extrctd :	12/23/96 13:44
ple ID	: CR-A160801	DaTime Analyzd :	12/23/96 13:44
ab Cnt NO.	: L051-08	Dilutn Factor :	1
ab File ID	: RLP479	Matrix :	WATER
xt Btch ID	: VOL2802	% Moisture :	NA
Calib. Ref.	: RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
,1-Dichloroethene	ND	5	.688
,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
enzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
hlorobenzene	ND	5	.345
hloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
ibromochloromethane	ND	5	.317
thylbenzene	ND	5	.428
Methylene Chloride	3.94F	5	.771
-Xylenes	ND	10	.71
ene	ND	5	.26
ne	ND	5	.263
achloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
rans-1,3-Dichloropropene	ND	5	.171
richloroethene	ND	5	.325
inyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	95	79-118
romofluorobenzene	101	86-115
Toluene-d8	91	88-110

QL: Practical Quantitation Limit
CWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 14:13
Sample ID	: CR-A160805	DaTime Analyzd :	12/23/96 14:13
Lab Cnt NO.:	L051-12	Dilutn Factor :	1
Lab File ID:	RLP480	Matrix :	WATER
Ext Btch ID:	VOL2802	% Moisture :	NA
Calib. Ref.:	RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	4.15F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	95	79-118
Bromofluorobenzene	102	86-115
Toluene-d8	92	88-110

POL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

lient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
1 No.	: 96L051	DaTime Extrctd :	12/23/96 14:41
le ID	: CR-A161101	DaTime Analyzd :	12/23/96 14:41
ab Cnt NO.	: L051-15	Dilutn Factor :	1
ab File ID	: RLP481	Matrix :	WATER
xt Btch ID	: VOL2802	% Moisture :	NA
Calib. Ref.	: RLP470	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
enzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
hlorobenzene	ND	5	.345
hloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
ibromochloromethane	ND	5	.317
thylbenzene	ND	5	.428
Methylene Chloride	4.3F	5	.771
-Xylenes	ND	10	.71
ene	ND	5	.26
ene	ND	5	.263
achloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
rans-1,3-Dichloropropene	ND	5	.171
ichloroethene	ND	5	.325
inyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	97	79-118
romofluorobenzene	101	86-115
Toluene-d8	92	88-110

L: Practical Quantitation Limit
CWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 15:10
Sample ID	: CR-A161108	DaTime Analyzd :	12/23/96 15:10
Lab Cnt NO.:	L051-19	Dilutn Factor :	1
Lab File ID:	RLP482	Matrix :	WATER
Ext Btch ID:	VOL2802	% Moisture :	NA
Calib. Ref.:	RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	4.36F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	94	79-118
Bromofluorobenzene	101	86-115
Toluene-d8	92	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
ect	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
No.	: 96L051	DaTime Extrctd :	12/23/96 16:11
e ID	: CR-A160001	DaTime Analyzd :	12/23/96 16:11
ab Cnt NO.	: L051-20	Dilutn Factor :	1
ab File ID	: RLP483	Matrix :	WATER
xt Btch ID	: VOL2802	% Moisture :	NA
Calib. Ref.	: RLP470	Instrument ID :	MSVOA2

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
enzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
hlorobenzene	ND	5	.345
hloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
s-1,3-Dichloropropene	ND	5	.327
bromochloromethane	ND	5	.317
thylbenzene	ND	5	.428
Methylene Chloride	4.36F	5	.771
-Xylenes	ND	10	.71
ene	ND	5	.26
ne	ND	5	.263
achloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
ans-1,3-Dichloropropene	ND	5	.171
ichloroethene	ND	5	.325
nyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
2-Dichloroethane-d4	91	79-118
romofluorobenzene	89	86-115
Toluene-d8	94	88-110

L: Practical Quantitation Limit
CWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/16/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 17:38
Sample ID	: CR-A160005	DaTime Analyzd :	12/23/96 17:38
Lab Cnt NO.:	L051-24	Dilutn Factor :	1
Lab File ID:	RLP486	Matrix :	WATER
Ext Btch ID:	VOL2802	% Moisture :	NA
Calib. Ref.:	RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	16F	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	2.35F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	93	79-118
Bromofluorobenzene	101	86-115
Toluene-d8	93	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 18:05
Sample ID	: CR-A160201	DaTime Analyzd :	12/23/96 18:05
Lab Cnt NO.:	L051-25	Dilutn Factor :	1
Lab File ID:	RLP487	Matrix :	WATER
Ext Btch ID:	VOL2802	% Moisture :	NA
Calib. Ref.:	RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
cis-1,2-Dichloroethene	ND	5	.402
cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	ND	5	.771
Xylenes	ND	10	.71
ene	ND	5	.26
ene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	96	79-118
Bromofluorobenzene	101	86-115
Toluene-d8	91	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 18:34
Sample ID	: CR-A160205	DaTime Analyzd :	12/23/96 18:34
Cnt NO.	: L051-29	Dilutn Factor :	1
Lab File ID	: RLP488	Matrix :	WATER
Ext Btch ID	: VOL2802	% Moisture :	NA
Calib. Ref.	: RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	17.2F	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	4.22F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	93	79-118
Bromofluorobenzene	92	86-115
Toluene-d8	91	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
ect	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
h No.	: 96L051	DaTime Extrctd :	12/23/96 19:02
le ID	: CR-A160301	DaTime Analyzd :	12/23/96 19:02
ab Cnt NO.	: L051-32	Dilutn Factor :	1
ab File ID	: RLP489	Matrix :	WATER
xt Btch ID	: VOL2802	% Moisture :	NA
Calib. Ref.	: RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
,1,2-Trichloroethane	ND	5	.064
,1-Dichloroethane	ND	5	.55
,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
,2-Dichloropropane	ND	5	.822
-Butanone	ND	100	1.3
-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	ND	100	2.18
enzene	ND	5	.7
romodichloromethane	ND	5	.406
romoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
arbon Tetrachloride	ND	5	.398
hlorobenzene	ND	5	.345
hloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
is-1,2-Dichloroethene	ND	5	.402
is-1,3-Dichloropropene	ND	5	.327
ibromochloromethane	ND	5	.317
thylbenzene	ND	5	.428
Methylene Chloride	2.56F	5	.771
-Xylenes	ND	10	.71
ene	ND	5	.26
ene	ND	5	.263
etrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
rans-1,3-Dichloropropene	ND	5	.171
richloroethene	ND	5	.325
inyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

URROGATE PARAMETERS	% RECOVERY	QC LIMIT
,2-Dichloroethane-d4	96	79-118
romofluorobenzene	93	86-115
Toluene-d8	93	88-110

QL: Practical Quantitation Limit
ACWHTG/JACWHTS: Revision 0, 18-NOV-96

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/23/96 19:30
Sample ID	: CR-A160305	DaTime Analyzd :	12/23/96 19:30
Lab Cnt NO.:	L051-36	Dilutn Factor :	1
Lab File ID:	RLP490	Matrix :	WATER
Ext Btch ID:	VOL2802	% Moisture :	NA
Calib. Ref.:	RLP470	Instrument ID :	MSVOA2

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,1,1-Trichloroethane	ND	5	.308
1,1,2,2-Tetrachloroethane	ND	5	.326
1,1,2-Trichloroethane	ND	5	.064
1,1-Dichloroethane	ND	5	.55
1,1-Dichloroethene	ND	5	.688
1,2,3-Trichloropropane	ND	5	1.52
1,2-Dichloroethane	ND	5	.327
1,2-Dichloropropane	ND	5	.822
2-Butanone	ND	100	1.3
2-Chloroethyl Vinyl Ether	ND	10	.387
2-Hexanone	ND	50	.962
4-Methyl-2-Pentanone	ND	50	1.88
Acetone	17.6F	100	2.18
Benzene	ND	5	.7
Bromodichloromethane	ND	5	.406
Bromoform	ND	5	.299
Bromomethane	ND	10	.721
Carbon Disulfide	ND	5	.474
Carbon Tetrachloride	ND	5	.398
Chlorobenzene	ND	5	.345
Chloroethane	ND	10	.71
Chloroform	ND	5	.441
Chloromethane	ND	10	1.16
Cis-1,2-Dichloroethene	ND	5	.402
Cis-1,3-Dichloropropene	ND	5	.327
Dibromochloromethane	ND	5	.317
Ethylbenzene	ND	5	.428
Methylene Chloride	2.64F	5	.771
m/p-Xylenes	ND	10	.71
o-Xylene	ND	5	.26
Styrene	ND	5	.263
Tetrachloroethylene	ND	5	.32
Toluene	ND	5	.372
Trans-1,2-Dichloroethene	ND	5	.494
Trans-1,3-Dichloropropene	ND	5	.171
Trichloroethene	ND	5	.325
Vinyl Acetate	ND	50	.293
Vinyl Chloride	ND	10	.458

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	95	79-118
Bromofluorobenzene	96	86-115
Toluene-d8	91	88-110

PQL: Practical Quantitation Limit
JACWHTG/JACWHTS: Revision 0, 18-NOV-96

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 96L051

DECEMBER 30, 1996

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Nine (9) water samples were received from 12/14/96 to 12/17/96 to be analyzed for semivolatile organic analysis by EPA Method 3520B/8270B in accordance to USEPA SW846.

1. Holding Time

   Analytical holding time was met.

2. Surrogate Recovery

   All surrogate recoveries were within QC limits except low recovery of Phenol-d5 in L051-30.

3. Matrix Spike/Matrix Spike Duplicate

   Two sets of MS/MSD were designated. All recoveries were within QC limits except low recovery of 2-Chloronaphthalene in L051-02S and L051-21M; n-Nitrosodipropylamine in L051-21M. Low recoveries of 3,3'-Dichlorobenzidine in L051-21M/S and Hexachlorocyclopentadiene in L051-02M/S and L051-21M/S.

4. Lab Control Sample

   All recoveries were within QC limits except low recoveries of benzoic acid and hexachlorocyclopentadiene.

5. Method Blank

   Method blank was free of contamination.

6. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval.

7. Sample Analysis

EMAX LABORATORIES, INC., 630 Maple Ave Torrance CA 90503 TEL (310) 618-8559 FAX (310) 618-0818

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12/27/1996 15:47

LAB CHRONICLE
EPA 8270

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160702	L051-02	NA	SVL013W / 12/18/96 / 12:00	RLB296 / 12/27/96 / 02:00	RLB296	RLB297
CR-A160702MS	L051-02M	NA		/ 02:48	RLB296	RLB298
CR-A160702MSD	L051-02S	NA		/ 03:35	RLB296	RLB299
CR-A160706	L051-06	NA		RLB279 / 12/26/96 / 22:01	RLB279	RLB290
CR-A160802	L051-09	NA		/ 22:49	RLB279	RLB291
CR-A160806	L051-13	NA		RLB296 / 12/27/96 / 04:23	RLB296	RLB300
CR-A161102	L051-16	NA		/ 05:10		RLB301
CR-A160002	L051-21	NA		/ 05:58		RLB302
CR-A160002MS	L051-21M	NA		/ 06:45		RLB3
CR-A160002MSD	L051-21S	NA		/ 07:33		RLB304
CR-A160202	L051-26	NA		/ 08:20		RLB305
CR-A160206	L051-30	NA		/ 09:08		RLB306
CR-A160302	L051-33	NA		/ 09:56		RLB307
MBLK IW	SVL013WB			RLB279 / 12/26/96 / 19:37	RLB279	RLB287
LCS IW	SVL013WL			/ 20:25		RLB288
LCD IW	SVL013WC			/ 21:13		RLB289
CR-A160206	L051-30R			RLB296 / 12/27/96 / 11:30	RLB296	RLB309

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SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160702	DaTime Analyzd :	12/27/96 02:00
Lab Cnt NO.	: L051-02	Dilutn Factor :	1
Lab File ID	: RLB297	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160702	DaTime Analyzd :	12/27/96 02:00
Lab Cnt NO.	: L051-02	Dilutn Factor :	1
Lab File ID	: RLB297	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	4.96F	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	[illegible]
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	85	25-134
2-Fluorobiphenyl	66	43-125
2-Fluorophenol	62	25-125
Nitrobenzene-d5	72	32-125
Phenol-d5	62	25-125
Terphenyl-d14	71	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160706	DaTime Analyzd :	12/26/96 22:01
Lab Cnt NO.	: L051-06	Dilutn Factor :	1
Lab File ID	: RLB290	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB279	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/13/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160706	DaTime Analyzd :	12/26/96 22:01
Lab Cnt NO.	: L051-06	Dilutn Factor :	1
Lab File ID	: RLB290	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB279	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	60	25-134
2-Fluorobiphenyl	55	43-125
2-Fluorophenol	51	25-125
Nitrobenzene-d5	58	32-125
Phenol-d5	50	25-125
Terphenyl-d14	57	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160802	DaTime Analyzd :	12/26/96 22:49
Lab Cnt NO.	: L051-09	Dilutn Factor :	1
Lab File ID	: RLB291	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB279	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160802	DaTime Analyzd :	12/26/96 22:49
Lab Cnt NO.	: L051-09	Dilutn Factor :	1
Lab File ID	: RLB291	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB279	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	76	25-134
2-Fluorobiphenyl	60	43-125
2-Fluorophenol	59	25-125
Nitrobenzene-d5	66	32-125
Phenol-d5	59	25-125
Terphenyl-d14	71	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
oject	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
atch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
ample ID	: CR-A160806	DaTime Analyzd :	12/27/96 04:23
Lab Cnt NO.:	L051-13	Dilutn Factor :	1
ab File ID:	RLB300	Matrix :	WATER
xt Btch ID:	SVL013W	% Moisture :	NA
alib. Ref.:	RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
,2,4-Trichlorobenzene	ND	10	2.8
,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
,4-Dichlorobenzene	ND	10	2.5
,4,5-Trichlorophenol	ND	50	3.4
,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
,4-Dimethylphenol	ND	10	2.2
,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
-Chloronaphthalene	ND	10	2.9
-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
-Methylphenol	ND	10	3.1
itroaniline	ND	50	3.1
Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
-Nitroaniline	ND	50	3
,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
-Chloroaniline	ND	20	3.1
-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
-Nitroaniline	ND	50	2.3
-Nitrophenol	ND	50	.91
cenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
nthracene	ND	10	2.8
enzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
enzo(k)fluoranthene	ND	10	3.3
enzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
enzyl alcohol	ND	20	2.7
is(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160806	DaTime Analyzd :	12/27/96 04:23
Lab Cnt NO.:	L051-13	Dilutn Factor :	1
Lab File ID:	RLB300	Matrix :	WATER
Ext Btch ID:	SVL013W	% Moisture :	NA
Calib. Ref.:	RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.[illegible]
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	[illegible]
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	104	25-134
2-Fluorobiphenyl	80	43-125
2-Fluorophenol	81	25-125
Nitrobenzene-d5	89	32-125
Phenol-d5	79	25-125
Terphenyl-d14	77	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
ject	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
atch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
ample ID	: CR-A161102	DaTime Analyzd :	12/27/96 05:10
Lab Cnt NO.	: L051-16	Dilutn Factor :	1
Lab File ID	: RLB301	Matrix :	WATER
xt Btch ID	: SVL013W	% Moisture :	NA
alib. Ref.	: RLB296	Instrument ID :	MSBNA1

ARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
,2,4-Trichlorobenzene	ND	10	2.8
,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
,4,5-Trichlorophenol	ND	50	3.4
,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
,4-Dimethylphenol	ND	10	2.2
,4-Dinitrophenol	ND	50	.86
,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
-Chloronaphthalene	ND	10	2.9
-Chlorophenol	ND	10	2.9
-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
itroaniline	ND	50	3.1
itrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
-Nitroaniline	ND	50	3
,6-Dinitro-2-methylphenol	ND	50	1.8
-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
-Chloroaniline	ND	20	3.1
-Chlorophenyl phenyl ether	ND	10	3.8
-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
-Nitrophenol	ND	50	.91
cenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
nthracene	ND	10	2.8
enzo(a)anthracene	ND	10	2.4
enzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
enzo(k)fluoranthene	ND	10	3.3
enzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
is(2-Chloroethoxy)methane	ND	10	3

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SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/12/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/14/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A161102	DaTime Analyzd :	12/27/96 05:10
Lab Cnt NO.	: L051-16	Dilutn Factor :	1
Lab File ID	: RLB301	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	83	25-134
2-Fluorobiphenyl	58	43-125
2-Fluorophenol	55	25-125
Nitrobenzene-d5	62	32-125
Phenol-d5	54	25-125
Terphenyl-d14	68	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160002	DaTime Analyzd :	12/27/96 05:58
Lab Cnt NO.	: L051-21	Dilutn Factor :	1
Lab File ID	: RLB302	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160002	DaTime Analyzd :	12/27/96 05:58
Lab Cnt NO.	: L051-21	Dilutn Factor :	1
Lab File ID	: RLB302	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	61	25-134
2-Fluorobiphenyl	54	43-125
2-Fluorophenol	51	25-125
Nitrobenzene-d5	58	32-125
Phenol-d5	49	25-125
Terphenyl-d14	63	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

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ient	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
bject	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160202	DaTime Analyzd :	12/27/96 08:20
Lab Cnt NO.	: L051-26	Dilutn Factor :	1
Lab File ID	: RLB305	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

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SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160202	DaTime Analyzd :	12/27/96 08:20
Lab Cnt NO.	: L051-26	Dilutn Factor :	1
Lab File ID	: RLB305	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	92	25-134
2-Fluorobiphenyl	70	43-125
2-Fluorophenol	61	25-125
Nitrobenzene-d5	70	32-125
Phenol-d5	63	25-125
Terphenyl-d14	73	42-126

PQL: Practical Quantitation Limit
1): Cannot be separated from 3-Methylphenol
2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

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SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

ent	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
bject	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
atch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
ample ID	: CR-A160206	DaTime Analyzd :	12/27/96 09:08
Lab Cnt NO.:	L051-30	Dilutn Factor :	1
Lab File ID:	RLB306 ✓	Matrix :	WATER
xt Btch ID:	SVL013W	% Moisture :	NA
alib. Ref.:	RLB296 ✓	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
,2,4-Trichlorobenzene	ND	10	2.8
,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
,4,5-Trichlorophenol	ND	50	3.4
,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
,4-Dimethylphenol	ND	10	2.2
,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
-Chloronaphthalene	ND	10	2.9
-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
-Methylphenol	ND	10	3.1
itroaniline	ND	50	3.1
Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
-Nitroaniline	ND	50	3
,6-Dinitro-2-methylphenol	ND	50	1.8
-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
-Chloroaniline	ND	20	3.1
-Chlorophenyl phenyl ether	ND	10	3.8
-Methylphenol (1)	ND	10	3.2
-Nitroaniline	ND	50	2.3
-Nitrophenol	ND	50	.91
cenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
nthracene	ND	10	2.8
enzo(a)anthracene	ND	10	2.4
enzo(a)pyrene	ND	10	2.8
enzo(b)fluoranthene	ND	10	2.8
enzo(k)fluoranthene	ND	10	3.3
enzo(g,h,i)perylene	ND	10	3.3
enzoic Acid	ND	50	2.6
enzyl alcohol	ND	20	2.7
is(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160206	DaTime Analyzd :	12/27/96 09:08
Lab Cnt NO.	: L051-30	Dilutn Factor :	1
Lab File ID	: RLB306	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2.[illegible]
Hexachlorocyclopentadiene	ND	10	1[illegible]
Hexachloroethane	ND	10	[illegible]
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	87	25-134
2-Fluorobiphenyl	70	43-125
2-Fluorophenol	37	25-125
Nitrobenzene-d5	76	32-125
Phenol-d5	23*	25-125
Terphenyl-d14	73	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160206	DaTime Analyzd :	12/27/96 11:30
Lab Cnt NO.	: L051-30R	Dilutn Factor :	1
Lab File ID	: RLB309	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160206	DaTime Analyzd :	12/27/96 11:30
Lab Cnt NO.	: L051-30R	Dilutn Factor :	1
Lab File ID	: RLB309	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	2
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	90	25-134
2-Fluorobiphenyl	70	43-125
2-Fluorophenol	39	25-125
Nitrobenzene-d5	76	32-125
Phenol-d5	23*	25-125
Terphenyl-d14	70	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

410 886

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160302	DaTime Analyzd :	12/27/96 09:56
Lab Cnt NO.	: L051-33	Dilutn Factor :	1
Lab File ID	: RLB307	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
1,2,4-Trichlorobenzene	ND	10	2.8
1,2-Dichlorobenzene	ND	10	2.7
1,3-Dichlorobenzene	ND	10	2.6
1,4-Dichlorobenzene	ND	10	2.5
2,4,5-Trichlorophenol	ND	50	3.4
2,4,6-Trichlorophenol	ND	10	3.5
2,4-Dichlorophenol	ND	10	3
2,4-Dimethylphenol	ND	10	2.2
2,4-Dinitrophenol	ND	50	.86
2,4-Dinitrotoluene	ND	10	4
2,6-Dinitrotoluene	ND	10	3.6
2-Chloronaphthalene	ND	10	2.9
2-Chlorophenol	ND	10	2.9
2-Methylnaphthalene	ND	10	2.9
2-Methylphenol	ND	10	3.1
2-Nitroaniline	ND	50	3.1
2-Nitrophenol	ND	10	3
3,3'-Dichlorobenzidine	ND	20	3.5
3-Nitroaniline	ND	50	3
4,6-Dinitro-2-methylphenol	ND	50	1.8
4-Bromophenyl phenyl ether	ND	10	4.2
4-Chloro-3-methylphenol	ND	20	3.1
4-Chloroaniline	ND	20	3.1
4-Chlorophenyl phenyl ether	ND	10	3.8
4-Methylphenol (1)	ND	10	3.2
4-Nitroaniline	ND	50	2.3
4-Nitrophenol	ND	50	.91
Acenaphthene	ND	10	3.2
Acenaphthylene	ND	10	3.3
Anthracene	ND	10	2.8
Benzo(a)anthracene	ND	10	2.4
Benzo(a)pyrene	ND	10	2.8
Benzo(b)fluoranthene	ND	10	2.8
Benzo(k)fluoranthene	ND	10	3.3
Benzo(g,h,i)perylene	ND	10	3.3
Benzoic Acid	ND	50	2.6
Benzyl alcohol	ND	20	2.7
Bis(2-Chloroethoxy)methane	ND	10	3

SW 3520B/8270B
SEMI VOLATILE ORGANICS BY GC/MS

Client	: JACOBS ENGINEERING GROUP	DaTime Collcted:	12/14/96
Project	: CARSWELL AFB / 05G47900	DaTime Received:	12/17/96
Batch No.	: 96L051	DaTime Extrctd :	12/18/96 12:00
Sample ID	: CR-A160302	DaTime Analyzd :	12/27/96 09:56
Lab Cnt NO.	: L051-33	Dilutn Factor :	1
Lab File ID	: RLB307	Matrix :	WATER
Ext Btch ID	: SVL013W	% Moisture :	NA
Calib. Ref.	: RLB296	Instrument ID :	MSBNA1

PARAMETERS	RESULTS (ug/L)	PQL (ug/L)	MDL (ug/L)
bis(2-Chloroethyl)ether	ND	10	2.9
bis(2-Chloroisopropyl)ether	ND	10	4.2
bis(2-Ethylhexyl)phthalate	ND	10	4.2
Butylbenzylphthalate	ND	10	2.8
Chrysene	ND	10	3
Di-n-butylphthalate	ND	10	5.4
Di-n-octylphthalate	ND	10	2.6
Dibenzo(a,h)anthracene	ND	10	3.1
Dibenzofuran	ND	10	3.8
Diethylphthalate	ND	10	2.8
Dimethylphthalate	ND	10	3.6
Fluoranthene	ND	10	2.7
Fluorene	ND	10	3.3
Hexachlorobenzene	ND	10	3.6
Hexachlorobutadiene	ND	10	2
Hexachlorocyclopentadiene	ND	10	1
Hexachloroethane	ND	10	
Indeno(1,2,3-cd)pyrene	ND	10	3.2
Isophorone	ND	10	3
n-Nitroso-di-n-propylamine	ND	10	3.7
n-Nitrosodiphenylamine (2)	ND	10	3
Naphthalene	ND	10	2.9
Nitrobenzene	ND	10	2.8
Pentachlorophenol	ND	50	2.4
Phenanthrene	ND	10	3
Phenol	ND	10	2.9
Pyrene	ND	10	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-Tribromophenol	55	25-134
2-Fluorobiphenyl	47	43-125
2-Fluorophenol	44	25-125
Nitrobenzene-d5	49	32-125
Phenol-d5	45	25-125
Terphenyl-d14	56	42-126

PQL: Practical Quantitation Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine
JAKWHTG/JAKWHTS: Revision 0 19-NOV-96

410 888

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 3020A/7740
SELENIUM BY GFAA

SDG#: 96L051

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

EPA 3020A/7740
SELENIUM BY GFAA

Fifteen (15) water samples were received on 12/14/96 for Selenium analysis in accordance with SW846.

1. **Holding Time**

   Analysis met the holding time criteria.

2. **Blank**

   All preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   All MS/MSD recoveries were within QC limits with the exception of L051-23M/S.

4. **Laboratory Control Sample/Laboratory Control Sample Duplicate**

   All lab control results and RPDs were within the control limits.

5. **Sample Analysis**

   All analyses were performed within the QC requirements.

410 890

12/17/1996 10:18

LAB CHRONICLE
Metals (Selenium)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160703	L051-03	NA	GFL008W/12/14/96/09:00	G06L023/12/23/96 17:12	G06L023-	19/-18
CR-A160703MS	L051-03M	NA		:23		-17
CR-A160703DUP	L051-03D	NA		:27		-18
CR-A160704	L051-04	NA		G06L023/12/23/96 17:31	G06L023-	10/20
CR-A160707	L051-07	NA		21:59	G06L023-	22/30
CR-A160803	L051-10	NA		17:34	G06L023-	10/21
CR-A160804	L051-11	NA		:46	G06L023-	22/24
CR-A160804MS	L051-11M	NA		:49		
CR-A160804DUP	L051-11D	NA		:53		26
CR-A160807	L051-14	NA		21:48		27
CR-A161103	L051-17	NA		:51		28
CR-A161104	L051-18	NA		:55		29
CR-A16003	L051-22		GFL010/12/18/96/15:00	22:53	G06L023-	34/44
CR-A16004	L051-23			:34		39
CR-A160203	L051-27			:57		45
CR-A160204	L051-28			23:01	G06L023-	46/48
CR-A160207	L051-31			:12		/49
CR-A160303	L051-34			:16		/50
CR-A160304	L051-35			:19		/51
MBLK2W	GFL010WB			22:25	G06L023-	34/36
LCS2		WL		:26		37
LCSD		WC		:30		38
MBLK1W	GFL008WB		GFL008/12/14/96/09:00	17:01	G06L023-	10/
LCS1W		WL		:04		13
LCD1W		WC		:08		14
CR-A16004MS	L051-23M		GFL010/12/18/96/15:00	22:46	G06L023-	34/42

002

EPA 3020A/7740
SELENIUM BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L051
Matrix : WATER

Date Collcted : 12/13/96
DaTime Received: 12/14/96
Instrument ID : EMAXT106

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160703	L051-03	ND	1	NA	.005	.0011	01/02/9720:14	12/14/9609:00	G06L027014	G06L027012	GFL008W
CR-A160703MS	L051-03M	.0145	1	NA	.005	.0011	01/02/9720:25	12/14/9609:00	G06L027017	G06L027012	GFL008W
CR-A160703MSD	L051-03S	.0154	1	NA	.005	.0011	01/02/9720:29	12/14/9609:00	G06L027018	G06L027012	GFL008W
CR-A160703	L051-03A	.0174	1	NA	.005	.0011	12/23/9617:20	12/14/9609:00	G06L023047	G06L023040	GFL008W
CR-A160704	L051-04	ND	1	NA	.005	.0011	12/23/9617:31	12/14/9609:00	G06L023050	G06L023040	GFL008W
CR-A160707	L051-07	ND	1	NA	.005	.0011	12/23/9619:34	12/14/9609:00	G06L023069	G06L023062	GFL008W
CR-A160803*	L051-10	.0018F	1	NA	.005	.0011	12/23/9617:34	12/14/9609:00	G06L023051	G06L023040	GFL008W
CR-A160804*	L051-11	.002F	1	NA	.005	.0011	12/23/9617:46	12/14/9609:00	G06L023054	G06L023052	GFL008W
CR-A160804MS*	L051-11M	.0173	1	NA	.005	.0011	12/23/9617:49	12/14/9609:00	G06L023055	G06L023052	GFL008W
CR-A160804MSD*	L051-11S	.0169	1	NA	.005	.0011	12/23/9617:53	12/14/9609:00	G06L023056	G06L023052	GFL008W
CR-A160807*	L051-14	ND	1	NA	.005	.0011	12/23/9617:57	12/14/9609:00	G06L023057	G06L023052	GFL008W
CR-A161103*	L051-17	.002F	1	NA	.005	.0011	12/23/9621:51	12/14/9609:00	G06L023102	G06L023097	GFL008W
CR-A161104*	L051-18	.0023F	1	NA	.005	.0011	12/23/9621:55	12/14/9609:00	G06L023103	G06L023097	GFL008W
CR-A160003**&	L051-22	.0015F	1	NA	.005	.0011	12/23/9622:53	12/14/9609:00	G06L023118	G06L023109	GFL010W
CR-A160004**&	L051-23	.0022F	1	NA	.005	.0011	12/23/9622:34	12/14/9609:00	G06L023113	G06L023109	GFL010W
CR-A160004MS**&	L051-23M	.013	1	NA	.005	.0011	12/23/9622:46	12/14/9609:00	G06L023116	G06L023109	GFL010W
CR-A160004MSD**&	L051-23S	.0135	1	NA	.005	.0011	12/23/9622:49	12/14/9609:00	G06L023117	G06L023109	GFL010W
CR-A160004**&	L051-23A	.0198	1	NA	.005	.0011	12/23/9622:42	12/14/9609:00	G06L023115	G06L023109	GFL010W
CR-A160203**&	L051-27	.0015F	1	NA	.005	.0011	12/23/9622:57	12/14/9609:00	G06L023119	G06L023109	GFL010W
CR-A160204**&	L051-28	.0019F	1	NA	.005	.0011	12/23/9623:01	12/14/9609:00	G06L023120	G06L023109	GFL010W
CR-A160207**&	L051-31	ND	1	NA	.005	.0011	12/23/9623:12	12/14/9609:00	G06L023123	G06L023121	GFL010W
CR-A160303**&	L051-34	ND	1	NA	.005	.0011	12/23/9623:16	12/14/9609:00	G06L023124	G06L023121	GFL010W
CR-A160304**&	L051-35	ND	1	NA	.005	.0011	12/23/9623:19	12/14/9609:00	G06L023125	G06L023121	GFL010W
MBLK1W	GFL008WB	ND	1	NA	.005	.0011	12/23/9617:01	12/14/9609:00	G06L023042	G06L023040	GFL008W
LCS1W	GFL008WL	.0196	1	NA	.005	.0011	12/23/9617:04	12/14/9609:00	G06L023043	G06L023040	GFL008W
LCD1W	GFL008WC	.0189	1	NA	.005	.0011	12/23/9617:08	12/14/9609:00	G06L023044	G06L023040	GFL008W
MBLK2W	GFL010WB	ND	1	NA	.005	.0011	12/23/9622:15	12/14/9609:00	G06L023108	G06L023097	GFL010W
LCS2W	GFL010WL	.0161	1	NA	.005	.0011	12/23/9622:26	12/14/9609:00	G06L023111	G06L023109	GFL010W
LCD2W	GFL010WC	.0162	1	NA	.005	.0011	12/23/9622:30	12/14/9609:00	G06L023112	G06L023109	GFL010W

PQL: Practical Quantitation Limit

* DATE COLLECTED : 12/12/96
** DATE COLLECTED : 12/14/96
& RECEIVED DATE : 12/17/96

003

410 891

410 892

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JAN 06 1997
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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 3020A/7760
SILVER BY GFAA

SDG#: 96L051

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

EPA 3020A/7760
SILVER BY GFAA

Fifteen (15) water samples were received on 12/14/96 for Silver analysis in accordance with SW846.

1. **Holding Time**

   Analysis met the holding time criteria.

2. **Blank**

   All preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   All MS/MSD recoveries were within QC limits.

4. **Laboratory Control Sample/Laboratory Control Sample Duplicate**

   All lab control results and RPDs were within the control limits.

5. **Sample Analysis**

   All analyses were performed within the QC requirements.

EMAX LABORATORIES INC., 630 Maple Ave., Torrance, CA 90503, TEL: (310) 618-8889, FAX: (310) 618-9810

410 891

12/17/1996 10:18

LAB CHRONICLE
Metals (Silver)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160703	L051-03	NA	GFL008W/12/14/96/09:00	G06L022/12/20/96/20:13	G06L022-	21/
CR-A160703MS	L051-03M	NA		:23		29
CR-A160703DUP	L051-03D	NA		:26		30
CR-A160704	L051-04	NA		:29		33
CR-A160707	L051-07	NA		21:01	G06L022 -	21/
CR-A160803	L051-10	NA		20:32	G06L022-9/	
CR-A160804	L051-11	NA		:42	G06L022-2	
CR-A160804MS	L051-11M	NA		:45		21
CR-A160804DUP	L051-11D	NA		:48		25
CR-A160807	L051-14	NA		:51		26
CR-A161103	L051-17	NA		:55		27
CR-A161104	L051-18	NA		:58		28
MBLK1W	GFL008-WB			:04	G06L022-9/	11
LCS1	WL			:07		12
LCSD	WC			:10		13
MBLK2W	GFL010-WB		GFL010W/12/18/96/15:00	G03L030/12/20/96/19:15	G03L030-34/	
LCS2	WL			:19		39
LCS2D	WC			:22		40
CR-A16003	L051-22			:48	G03L030-46/	48
CR-A16004	L051-23			:25	G03L030-34/	
CR-A16004MS	L051-23M			:35		
CR-A16004MSD	L051-23S			:38		
CR-A160203	L051-27			:51	G03L030-46/	
CR-A160204	L051-28			:54		
CR-A160207	L051-31			:57		
CR-A160309	L051-34			20:00		

002

EPA 3020A/7760
SILVER BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L051
Matrix : WATER

Date Collcted : 12/13/96
DaTime Received: 12/14/96
Instrument ID : EMAXTI06

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160703	L051-03	.00025F	1	NA	.001	.0002	12/20/9620:13	12/14/9609:00	G06L022026	G06L022021	GFL008W
CR-A160703MS	L051-03M	.0026	1	NA	.001	.0002	12/20/9620:23	12/14/9609:00	G06L022029	G06L022021	GFL008W
CR-A160703MSD	L051-03S	.00255	1	NA	.001	.0002	12/20/9620:26	12/14/9609:00	G06L022030	G06L022021	GFL008W
CR-A160704	L051-04	.00021F	1	NA	.001	.0002	12/20/9620:29	12/14/9609:00	G06L022031	G06L022021	GFL008W
CR-A160707	L051-07	ND	1	NA	.001	.0002	12/20/9621:01	12/14/9609:00	G06L022041	G06L022021	GFL008W
CR-A160803*	L051-10	ND	1	NA	.001	.0002	12/20/9620:32	12/14/9609:00	G06L022032	G06L022021	GFL008W
CR-A160804*	L051-11	ND	1	NA	.001	.0002	12/20/9620:42	12/14/9609:00	G06L022035	G06L022033	GFL008W
CR-A160804MS*	L051-11M	.00168	1	NA	.001	.0002	12/20/9620:45	12/14/9609:00	G06L022036	G06L022033	GFL008W
CR-A160804MSD*	L051-11S	.00173	1	NA	.001	.0002	12/20/9620:48	12/14/9609:00	G06L022037	G06L022033	GFL008W
CR-A160807*	L051-14	ND	1	NA	.001	.0002	12/20/9620:51	12/14/9609:00	G06L022038	G06L022033	GFL008W
CR-A161103*	L051-17	ND	1	NA	.001	.0002	12/20/9620:55	12/14/9609:00	G06L022039	G06L022033	GFL008W
CR-A161104*	L051-18	ND	1	NA	.001	.0002	12/20/9620:58	12/14/9609:00	G06L022040	G06L022033	GFL008W
CR-A160003**&!	L051-22	ND	1	NA	.001	.0002	12/26/9619:48	12/18/9615:00	G03L030080	G03L030078	GFL010W
CR-A160004**&!	L051-23	ND	1	NA	.001	.0002	12/26/9619:25	12/18/9615:00	G03L030073	G03L030066	GFL010W
CR-A160004MS**&!	L051-23M	.00161	1	NA	.001	.0002	12/26/9619:35	12/18/9615:00	G03L030076	G03L030066	GFL010W
CR-A160004MSD**&!	L051-23S	.00178	1	NA	.001	.0002	12/26/9619:38	12/18/9615:00	G03L030077	G03L030066	GFL010W
CR-A160203**&!	L051-27	ND	1	NA	.001	.0002	12/26/9619:51	12/18/9615:00	G03L030081	G03L030078	GFL010W
CR-A160204**&!	L051-28	ND	1	NA	.001	.0002	12/26/9619:54	12/18/9615:00	G03L030082	G03L030078	GFL010W
CR-A160207**&!	L051-31	ND	1	NA	.001	.0002	12/26/9619:57	12/18/9615:00	G03L030083	G03L030078	GFL010W
CR-A160303**&!	L051-34	ND	1	NA	.001	.0002	12/26/9620:00	12/18/9615:00	G03L030084	G03L030078	GFL010W
CR-A160304**&!	L051-35	ND	1	NA	.001	.0002	12/26/9620:03	12/18/9615:00	G03L030085	G03L030078	GFL010W
MBLK1W	GFL008WB	ND	1	NA	.001	.0002	12/20/9620:04	12/14/9609:00	G06L022023	G06L022021	GFL008W
LCS1W	GFL008WL	.00214	1	NA	.001	.0002	12/20/9620:07	12/14/9609:00	G06L022024	G06L022021	GFL008W
LCD1W	GFL008WC	.00222	1	NA	.001	.0002	12/20/9620:10	12/14/9609:00	G06L022025	G06L022021	GFL008W
MBLK2WI	GFL010WB	ND	1	NA	.001	.0002	12/26/9619:15	12/18/9615:00	G03L030070	G03L030066	GFL010W
LCS2WI	GFL010WL	.00183	1	NA	.001	.0002	12/26/9619:19	12/18/9615:00	G03L030071	G03L030066	GFL010W
LCD2WI	GFL010WC	.00187	1	NA	.001	.0002	12/26/9619:22	12/18/9615:00	G03L030072	G03L030066	GFL010W

PQL: Practical Quantitation Limit

* DATE COLLECTED : 12/12/96
** DATE COLLECTED : 12/14/96
& RECEIVED DATE : 12/17/96
! Instrument ID : EMAXTI03

410 896
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JAN 06 1997
JE - Denver

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 5030A/8240B
VOLATILES

SDG#: 96L051

JANUARY 03, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

SW 5030A/8240B
VOLATILE ORGANICS BY GC/MS

Sixteen (16) soil samples were received on 12/14/96 to be analyzed for volatile organics by EPA Method 5030A/8240B in accordance with SW846.

1. Holding Time

   Analytical holding time was met.

2. Surrogate Recovery

   All surrogate recoveries were within QC limits except for Toluene-d8 recovery in sample L051-01M/S, L051-20M and VOL2802C. No corrective action was performed since most target analyte recoveries were within QC with a few exceptions mentioned in Sections 3 & 4.

3. Matrix Spike/Matrix Spike Duplicate

   Two sets of MS/MSD were performed. All recoveries were within QC limit except Carbon Disulfide was 1% less than the acceptance limit in L051-20S and Chloroethyl Vinyl Ether had no recoveries in L051-01.

4. Laboratory Control Sample

   All recoveries were within QC limits except Vinyl Acetate in VOL2802L, but the recovery in VOL2802C was within QC limits.

5. Method Blank

   Method blank was free of contamination.

6. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval. All QC requirements were met.

7. Sample Analysis

   All sample analyses were performed within QC requirements.

12/27/1996 15:47

LAB CHRONICLE
EPA 8240

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160701	L051-01	NA	LP471	12/23/96		LP475
CR-A160701MS	L051-01M	NA				LP477
CR-A160701MSD	L051-01S	NA				LP493
CR-A160705	L051-05	NA				LP478
CR-A160801	L051-08	NA				LP479
CR-A160805	L051-12	NA				LP480
CR-A161101	L051-15	NA				LP481
CR-A161108	L051-19	NA				LP482
CR-A160001	L051-20	NA				LP483
CR-A160001MS	L051-20M	NA				LP484
CR-A160001MSD	L051-20S	NA				LP485
CR-A160005	L051-24	NA				LP486
CR-A160201	L051-25	NA				LP487
CR-A160205	L051-29	NA				LP488
CR-A160301	L051-32	NA				LP489
CR-A160305	L051-36	NA				LP490
VBLK01	VOL2802B					LP471
LCS01	VOL2802L					LP473
LCS01D	VOL2802C					LP474

410 890

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 3005A/7041
ANTIMONY BY GFAA

SDG#: 96L051

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

EPA 3005A/7041
ANTIMONY BY GFAA

Fifteen (15) water samples were received on 12/14/96 for Antimony analysis in accordance with SW846.

1. **Holding Time**

   Analysis met the holding time criteria.

2. **Blank**

   All preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   All MS/MSD recoveries were within QC limits.

4. **Laboratory Control Sample/Laboratory Control Sample Duplicate**

   All lab control results and RPDs were within the control limits.

5. **Sample Analysis**

   All sample analyses were within QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave. Torrance CA 90503 TEL (310) 618-8889 FAX (310) 618-9818

410 901

12/17/1996 10:18

LAB CHRONICLE
Metals (antimony)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160703	L051-03	NA	IPL024W/12/18/96/14.00	G06L021/12/19/96/22:54	G06L021	22/-25
CR-A160703MS	L051-03M	NA		23:05		28
CR-A160703DUP	L051-03D	NA		:08		29
CR-A160704	L051-04	NA		:12		30
CR-A160707	L051-07	NA		:16		31
CR-A160803	L051-10	NA		:19		32
CR-A160804	L051-11	NA		:23	G06L021-32	
CR-A160804MS	L051-11M	NA		:35	G06L021-34/36	
CR-A160804DUP	L051-11D	NA		:38		37
CR-A160807	L051-14	NA		:42		38
CR-A161103	L051-17	NA		:46		39
CR-A161104	L051-18	NA		:50		40
MBLK1W	IPL024WB			22:35	G06L021-10/2	
LCS1	25WL			:39	G06L021-10/28	
LCD1	25WC			:56	G06L021-22	24
MBLK2W	IPL026WB		IPL026W/12/18/96/14:00	G06L021/12/20/96/00:08	G06L021-34	4
LCS2	27WL			:19	G06L021-46/48	
LCD2	27WC			:23		4
CR-A16003	L051-22			G06L021/12/19/96/23:53	G06L021-34	47
CR-A16004	L051-23			G06L021/12/20/96/00:26	G06L021-46/	
CR-A16004MS	L051-23M			:37		
CR-A16004MSD	L051-23S			:41		
CR-A160203	L051-27			G06L021/12/19/96/23:57	G06L021-34	4
CR-A160204	L051-28			G06L021/12/20/96 00:01		002/43
CR-A160207	L051-31			00:05		14
CR-A160303	L051-34			00:44	G06L021-46/35	

EPA 3005A/7041
ANTIMONY BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L051
Matrix : WATER

Date Collcted : 12/13/96
DaTime Received: 12/14/96
Instrument ID : EMAXT106

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160703	L051-03	.00235F	1	NA	.005	.002	12/19/9622:54	12/18/9614:00	G06L021025	G06L021022	IPL024W
CR-A160703MS	L051-03M	.0209	1	NA	.005	.002	12/19/9623:05	12/18/9614:00	G06L021028	G06L021022	IPL024W
CR-A160703MSD	L051-03S	.0206	1	NA	.005	.002	12/19/9623:08	12/18/9614:00	G06L021029	G06L021022	IPL024W
CR-A160704	L051-04	ND	1	NA	.005	.002	12/19/9623:12	12/18/9614:00	G06L021030	G06L021022	IPL024W
CR-A160707	L051-07	ND	1	NA	.005	.002	12/19/9623:16	12/18/9614:00	G06L021031	G06L021022	IPL024W
CR-A160803*	L051-10	ND	1	NA	.005	.002	12/19/9623:19	12/18/9614:00	G06L021032	G06L021022	IPL024W
CR-A160804*	L051-11	ND	1	NA	.005	.002	12/19/9623:23	12/18/9614:00	G06L021033	G06L021022	IPL024W
CR-A160804MS*	L051-11M	.0189	1	NA	.005	.002	12/19/9623:35	12/18/9614:00	G06L021036	G06L021034	IPL024W
CR-A160804MSD*	L051-11S	.0204	1	NA	.005	.002	12/19/9623:38	12/18/9614:00	G06L021037	G06L021034	IPL024W
CR-A160807*	L051-14	ND	1	NA	.005	.002	12/19/9623:42	12/18/9614:00	G06L021038	G06L021034	IPL024W
CR-A161103*	L051-17	ND	1	NA	.005	.002	12/19/9623:46	12/18/9614:00	G06L021039	G06L021034	IPL024W
CR-A161104*	L051-18	ND	1	NA	.005	.002	12/19/9623:50	12/18/9614:00	G06L021040	G06L021034	IPL024W
CR-A160003**&	L051-22	ND	1	NA	.005	.002	12/19/9623:53	12/18/9614:00	G06L021041	G06L021034	IPL024W
CR-A160004**&	L051-23	ND	1	NA	.005	.002	12/20/9600:26	12/18/9614:00	G06L021050	G06L021046	IPL026W
CR-A160004MS**&	L051-23M	.0187	1	NA	.005	.002	12/20/9600:37	12/18/9614:00	G06L021053	G06L021046	IPL026W
CR-A160004MSD**&	L051-23S	.0193	1	NA	.005	.002	12/20/9600:41	12/18/9614:00	G06L021054	G06L021046	IPL026W
CR-A160203**&	L051-27	ND	1	NA	.005	.002	12/19/9623:57	12/18/9614:00	G06L021042	G06L021034	IPL024W
CR-A160204**&	L051-28	ND	1	NA	.005	.002	12/20/9600:01	12/18/9614:00	G06L021043	G06L021034	IPL024W
CR-A160207**&	L051-31	ND	1	NA	.005	.002	12/20/9600:05	12/18/9614:00	G06L021044	G06L021034	IPL024W
CR-A160303**&	L051-34	ND	1	NA	.005	.002	12/20/9600:44	12/18/9614:00	G06L021055	G06L021046	IPL026W
CR-A160304**&	L051-35	ND	1	NA	.005	.002	12/20/9600:48	12/18/9614:00	G06L021056	G06L021046	IPL026W
MBLK1W	IPL024WB	ND	1	NA	.005	.002	12/19/9622:35	12/18/9614:00	G06L021020	G06L021010	IPL024W
LCS1W	IPL025WL	.0207	1	NA	.005	.002	12/19/9622:39	12/18/9614:00	G06L021021	G06L021010	IPL024W
LCD1W	IPL025WC	.021	1	NA	.005	.002	12/19/9622:50	12/18/9614:00	G06L021024	G06L021022	IPL024W
MBLK2W	IPL026WB	ND	1	NA	.005	.002	12/20/9600:08	12/18/9614:00	G06L021045	G06L021034	IPL026W
LCS2W	IPL027WL	.018	1	NA	.005	.002	12/20/9600:19	12/18/9614:00	G06L021048	G06L021046	IPL026W
LCD2W	IPL027WC	.D201	1	NA	.005	.002	12/20/9600:23	12/18/9614:00	G06L021049	G06L021046	IPL026W

PQL: Practical Quantitation Limit
* DATE COLLECTEO : 12/12/96
** DATE COLLECTED : 12/14/96
& RECEIVED DATE : 12/17/96

410 903

RECEIVED
JAN 06 1997
JE - Denver

LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

MERCURY

SDG#: 96L051

JANUARY 03, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

MERCURY

Fifteen (15) water samples were received on 12/14/96 to be analyzed for Mercury in accordance with SW-846.

1. Holding Time

   Analytical holding time was met.

2. Method Blank

   All preparation blanks were free of contamination.

3. Matrix Spike/Matrix Spike Duplicate

   All recoveries and RPDs were within the QC limits.

4. Laboratory Control Sample/Laboratory Control Sample Duplicate

   All recoveries and RPDs were within the QC limits.

5. Sample Analysis

   All sample analyses were within QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL (310) 618-8889 FAX (310) 618-0818

410 905

12/17/1996 10:18

LAB CHRONICLE
Mercury

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160703	L051-03	NA	HgLC15W/12/16/96/20:03	M96LC15/12/16/96/21.15	M96LC15-19/	-23
CR-A160703MS	L051-03M	NA			18	24
CR-A160703DUP	L051-03D	NA			21	25
CR-A160704	L051-04	NA			24	26
CR-A160707	L051-07	NA			27	27
CR-A160803	L051-10	NA			30	28
CR-A160804	L051-11	NA			33	29
CR-A160804MS	L051-11M	NA			46	M96LC15-34/3
CR-A160804DUP	L051-11D	NA			49	34
CR-A160807	L051-14	NA			52	35
CR-A161103	L051-17	NA			55	36
CR-A161104	L051-18	NA			59	37
MBLKIW	HgLC15WB				20:31	M96LC15-07/9
LCS1	WL				34	10
LCD1	WC				37	11
MBLK2W	HgLC21WB		HgLC21W/12/24/96/17.57	M96LC21/12/24/96/18.22		M96LC21-7/9
LCS2	WL				25	10
LCD2	WC				28	11
	LC51-22				31	12
	23				35	13
	23M				38	14
	23S				41	15
	27				44	16
	28				47	17
	31				19:00	M96LC21-19/21
	34				1:03	22

002

EPA 7470A
MERCURY BY COLD VAPOR

CLIENT:	JACOBS ENGINEERING GROUP	DATE COLLECTED:	12/13/96
PROJECT:	CARSWELL AFB / 05G47900	DATE RECEIVED:	12/14/96
BATCH NO.:	96L051	DATE EXTRACTED:	12/16/96 20:03
MATRIX:	WATER	INSTRUMENT ID:	I123
CAL REF:	M96L015-19	PREP BATCH:	HGL015W

SAMPLE ID	CONTROL NO	RESULT (mg/L)	DILUTION FACTOR	PQL (mg/L)	MDL (mg/L)	ANALYZED DATETIME
CR-A160703	L051-03	ND	1	.001	.0001	12/16/96 21:15
CR-A160703MS	L051-03M	0.00442	1	.001	.0001	12/16/96 21:18
CR-A160703MSD	L051-03S	0.00446	1	.001	.0001	12/16/96 21:21
CR-A160704	L051-04	ND	1	.001	.0001	12/16/96 21:24
CR-A160707	L051-07	ND	1	.001	.0001	12/16/96 21:27
CR-A160803	L051-10	ND	1	.001	.0001	12/16/96 21:30
CR-A160804	L051-11	ND	1	.001	.0001	12/16/96 21:33
CR-A160804MS	L051-11M	0.00461	1	.001	.0001	12/16/96 21:46
CR-A160804MSD	L051-11S	0.00465	1	.001	.0001	12/16/96 21:49
CR-A160807	L051-14	ND	1	.001	.0001	12/16/96 21:52
CR-A161103	L051-17	ND	1	.001	.0001	12/16/96 21:55
CR-A161104	L051-18	ND	1	.001	.0001	12/16/96 21:59
CR-A160003	L051-22	ND	1	.001	.0001	12/24/96 18:31
CR-A160004	L051-23	ND	1	.001	.0001	12/24/96 18:35
CR-A160004MS	L051-23M	0.00453	1	.001	.0001	12/24/96 18:38
CR-A160004MSD	L051-23S	0.00449	1	.001	.0001	12/24/96 18:41
CR-A160203	L051-27	ND	1	.001	.0001	12/24/96 18:44
CR-A160204	L051-28	ND	1	.001	.0001	12/24/96 18:47
CR-A160207	L051-31	ND	1	.001	.0001	12/24/96 19:00
CR-A160303	L051-34	ND	1	.001	.0001	12/24/96 19:03
CR-A160304	L051-35	ND	1	.001	.0001	12/24/96 19:06
MBLK1W	HGL015WB	ND	1	.001	.0001	12/16/96 20:31
LCS1W	HGL015WL	0.00436	1	.001	.0001	12/16/96 20:34
LCD1W	HGL015WC	0.00436	1	.001	.0001	12/16/96 20:37
MBLK2W	HGL021WB	ND	1	.001	.0001	12/24/96 18:22
LCS2W	HGL021WL	0.00440	1	.001	.0001	12/24/96 18:25
LCD2W	HGL021WC	0.00435	1	.001	.0001	12/24/96 18:28

PQL: Practical Quantitation Limit
AFCEE Ver. 1.1
Samples L051-22 thru -35 and HGL021WB thru HGL021WC were extracted on 12/24/96 17:57
CAL REF: M96L015-31 for samples L051-11M thru L051-18.
CAL REL: M96L015-07 for samples HGL015WB thru HGL015WC.
CAL REL: M96L021-07 for samples L051-22 thru L051-28 and HGL021WB thru HGL021WC.
CAL REF: M96L021-19 for samples L051-31 thru L051-35.

410 907

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LABORATORY REPORT FOR

JACOBS ENGINEERING GROUP

CARSWELL AFB / 05G47900

EPA 3020A/7520
NICKEL BY GFAA

SDG#: 96L051

JANUARY 02, 1997

CASE NARRATIVE

CLIENT: JACOBS ENGINEERING GROUP

PROJECT: CARSWELL AFB / 05G47900

SDG: 96L051

EPA 3020A/7520
NICKEL BY GFAA

Fifteen (15) water samples were received on 12/14/96 for Nickel analysis in accordance with SW846.

1. **Holding Time**

   Analysis met the holding time criteria.

2. **Blank**

   All preparation blanks were free of contamination.

3. **Matrix Spike/Matrix Spike Duplicate**

   All MS/MSD recoveries were within QC limits.

4. **Laboratory Control Sample/Laboratory Control Sample Duplicate**

   All lab control results and RPDs were within the control limits.

5. **Sample Analysis**

   All sample analyses were within QC requirements.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

410 909

12/17/1996 10:18

LAB CHRONICLE
Metals (Nickel)

CLIENT: Jacobs Engineering Group
PROJECT: Carswell AFB / 05G47900

SDG/BATCH NO.: 96L051
MATRIX: Water

SAMPLE ID	CONTROL NO	%H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
CR-A160703	L051-03	NA	GFL008W/12/14/96 09:00	G03L025/12/20/96/00:25	G03L025-9/-14	
CR-A160703MS	L051-03M	NA		:37		17
CR-A160703DUP	L051-03D	NA		:41		18
CR-A160704	L051-04	NA		:45		19
CR-A160707	L051-07	NA		01:27	G03L025-21/29	
CR-A160803	L051-10	NA		00:49	G03L025-9/20	
CR-A160804	L051-11	NA		01:02	G03L025-21	
CR-A160804MS	L051-11M	NA		:06		24
CR-A160804DUP	L051-11D	NA		:10		25
CR-A160807	L051-14	NA		:14		26
CR-A161103	L051-17	NA		:48		27
CR-A161104	L051-18	NA		:23		28
MBLK1W	GFL008-WB			00:12	G03L025-9/11	
LCS1		WL		:16		12
LCD1		WC		:20		13
MBLK2W	GFL010-WB		GFL010W/12/18/96/15:00	G03L025/12/20/96/18:44	G03L026-9/1	
LCS2		WL		:48		12
LCD2		WC		:52		13
CR-A16003	L051-22			19:21	G03L026-9/19	
CR-A16004	L051-23			18:57		1
CR-A16004MS	L051-23M			19:13		
CR-A16004MSD	L051-23S			:17		
CR-A160203	L051-27			:34	G03L026-	
CR-A160204	L051-28			:38		
CR-A160207	L051-31			:42		
CR-A160303	L051-34			:46		
CR-A160304	L051-35			:50		

002

EPA 3020A/7520
NICKEL BY GFAA

Client : JACOBS ENGINEERING GROUP
Project : CARSWELL AFB / 05G47900
Batch No. : 96L051
Matrix : WATER

Date Collcted : 12/13/96
DaTime Received: 12/14/96
Instrument ID : EMAXT103

SAMPLE ID	CONTROL NO	RESULTS (mg/L)	DLF	MOIST	PQL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH
CR-A160703	L051-03	.00234F	1	NA	.01	.002	12/20/9600:25	12/14/9609:00	G03L025014	G03L025009	GFL008W
CR-A160703MS	L051-03M	.0116	1	NA	.01	.002	12/20/9600:37	12/14/9609:00	G03L025017	G03L025009	GFL008W
CR-A160703MSD	L051-03S	.0121	1	NA	.01	.002	12/20/9600:41	12/14/9609:00	G03L025018	G03L025009	GFL008W
CR-A160703	L051-03A	.0196	1	NA	.01	.002	12/20/9600:33	12/14/9609:00	G03L025016	G03L025009	GFL008W
CR-A160704	L051-04	ND	1	NA	.01	.002	12/20/9600:45	12/14/9609:00	G03L025019	G03L025009	GFL008W
CR-A160707	L051-07	ND	1	NA	.01	.002	12/20/9601:27	12/14/9609:00	G03L025029	G03L025021	GFL008W
CR-A160803*	L051-10	.00408F	1	NA	.01	.002	12/20/9600:49	12/14/9609:00	G03L025020	G03L025009	GFL008W
CR-A160804*	L051-11	ND	1	NA	.01	.002	12/20/9601:02	12/14/9609:00	G03L025023	G03L025021	GFL008W
CR-A160804MS*	L051-11M	.0288	3	NA	.03	.006	12/20/9601:06	12/14/9609:00	G03L025024	G03L025021	GFL008W
CR-A160804MSD*	L051-11S	.0287	3	NA	.03	.006	12/20/9601:10	12/14/9609:00	G03L025025	G03L025021	GFL008W
CR-A160807*	L051-14	ND	1	NA	.01	.002	12/20/9601:14	12/14/9609:00	G03L025026	G03L025021	GFL008W
CR-A161103*	L051-17	.00448F	1	NA	.01	.002	12/20/9601:18	12/14/9609:00	G03L025027	G03L025021	GFL008W
CR-A161104*	L051-18	ND	1	NA	.01	.002	12/20/9601:23	12/14/9609:00	G03L025028	G03L025021	GFL008W
CR-A160003**&	L051-22	.0022F	1	NA	.01	.002	12/20/9619:21	12/18/9615:00	G03L026026	G03L026015	GFL010W
CR-A160004**&	L051-23	.0204	1	NA	.01	.002	12/20/9618:57	12/18/9615:00	G03L026020	G03L026015	GFL010W
CR-A160004MS**&	L051-23M	.0288	3	NA	.03	.006	12/20/9619:13	12/18/9615:00	G03L026024	G03L026015	GFL010W
CR-A160004MSD**&	L051-23S	.0287	3	NA	.03	.006	12/20/9619:17	12/18/9615:00	G03L026025	G03L026015	GFL010W
CR-A160004**&	L051-23A	.0383	1	NA	.01	.002	12/20/9619:09	12/18/9615:00	G03L026023	G03L026015	GFL010W
CR-A160203**&	L051-27	.00447F	1	NA	.01	.002	12/20/9619:34	12/18/9615:00	G03L026029	G03L026027	GFL010W
CR-A160204**&	L051-28	ND	1	NA	.01	.002	12/20/9619:38	12/18/9615:00	G03L026030	G03L026027	GFL010W
CR-A160207**&	L051-31	ND	1	NA	.01	.002	12/20/9619:42	12/18/9615:00	G03L026031	G03L026027	GFL010W
CR-A160303**&	L051-34	.00423F	1	NA	.01	.002	12/20/9619:46	12/18/9615:00	G03L026032	G03L026027	GFL010W
CR-A160304**&	L051-35	ND	1	NA	.01	.002	12/20/9619:50	12/18/9615:00	G03L026033	G03L026027	GFL010W
MBLK1W	GFL008WB	ND	1	NA	.01	.002	12/20/9600:12	12/14/9609:00	G03L025011	G03L025009	GFL008W
LCS1W	GFL008WL	.0112	1	NA	.01	.002	12/20/9600:16	12/14/9609:00	G03L025012	G03L025009	GFL008W
LCD1W	GFL008WC	.00989F	1	NA	.01	.002	12/20/9600:20	12/14/9609:00	G03L025013	G03L025009	GFL008W
MBLK2W	GFL010WB	ND	1	NA	.01	.002	12/20/9618:44	12/18/9615:00	G03L026017	G03L026015	GFL010W
LCS2W	GFL010WL	.0101	1	NA	.01	.002	12/20/9618:48	12/18/9615:00	G03L026018	G03L026015	GFL010W
LCD2W	GFL010WC	.0106	1	NA	.01	.002	12/20/9618:52	12/18/9615:00	G03L026019	G03L026015	GFL010W

* DATE COLLECTED : 12/12/96
** DATE COLLECTED : 12/14/96
& RECEIVED DATE : 12/17/96

410 911

TAB

Appendix B

APPENDIX B

Chain Of Custody Records

Naval Air Station, Fort Worth Background Study Report
January 1998

EMAX Batch No. 96L051

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

96L051 I/ /R6C1 410 911

CR-A1607 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED Dilute	QC	CONDITION ON RECEIPT
1✓	CR-A160701	12/13/96	12:20	BN	~~1~~ 4	40 mL VOA	4C HCl p	W	SW8240 ØX	M	T=2C
2✓	CR-A160702	12/13/96	12:20	BN	~~1~~ 4	1 L Amber Glass	4 deg C	W	SW8270	M	
✓3	CR-A160703	12/13/96	12:20	BN	~~1~~ 2	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470	M	
✓4	CR-A160704	12/13/96	11:45	BN	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
5✓	CR-A 160705	12/13/96	12:25	BN	2	40mL VOA	HCL	W	SW8240		
6✓	CR-A 160706	12/13/96	12:25	BN	2	1L Amber	4°C	W	SW8270		
7✓	CR-A 160707	12/13/96	12:25	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7470		
									BN 12/13/96		

COMMENTS:

COLLECTED & RELEASED BY [signature]	DATE 12/13/96	TIME 17:27	TURNAROUND TIME	14 day	
RECEIVED BY [signature]	DATE 12/14/96	TIME 9:00 AM	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER: 2963020815		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 915

JACOBS ENGINEERING GROUP INC. 96L051 I1/R6C1

600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1608 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

PROJECT NUMBER: 05G47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: HRAI Inc.
630 Maple Avenue
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
8	CR-A160801	12/12/96	11:45	DDS	2	40 mL VOA	4C HCl p	W	SW8240 DILUTE OK		T=2°C
9	CR-A160802	12/12/96	11:45	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
10	CR-A160803	12/12/96	11:45	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
11	CR-A160804	12/12/96	11:20	BN	~~1~~ 2	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470	M	
12	CR-A 160805	12/12/96	17:00	BN	2	40 ml VOA	HCL	W	SW8240		
13	CR-A 160806	12/12/96	17:00	BN	2	1L Amber	4°C	W	SW8270		
14	CR-A 160807	12/12/96	17:00	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7470		

BN 12/13/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
D. Bryan Neely	12/13/96	17:27	14 day

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	12/14/96	9 am		/ /	:

RECORD RETURNED BY	DATE	TIME	SHIPPING NUMBER
	/ /	:	2963020815

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

96L051 I1 / REC1 410 916

CR-A1611

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: KMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED Dilute	QC	CONDITION ON RECEIPT
15 ✓	CR-A161101	12/12/96	17:15	DDS	2	40 mL VOA	4C HCl p	W	SW8240		T=2C ✓
16 ✓	CR-A161102	12/12/96	17:15	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
17 ✓	CR-A161103	12/12/96	17:15	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
18 ✓	CR-A161104	12/12/96	16:50	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
	~~CR-A 161105~~	~~12/13/96~~	~~15:30~~	~~BN~~	~~2~~	~~40 ml VOA~~	~~HCL~~	~~W~~	~~SW8240~~		BN
	~~CR-A 161106~~	~~12/13/96~~	~~15:30~~	~~BN~~	~~2~~	~~1L Amber~~	~~4°C~~	~~W~~	~~SW8270~~		BN
	~~CR-A 161107~~	~~12/13/96~~	~~15:30~~	~~BN~~	~~1~~	~~1L Plastic~~	~~HNO3~~	~~W~~	~~SW6010 Trace SW7470~~		BN
19 ✓	CR-A 161108	12/13/96	16:30	BN	2	40ml VOA	HCL	W	SW8240		T=2C ✓
									BN 12/13/96		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
D. Bryan Neely	12/13/96	17:27	14 dax

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	12/14/96	9:00		/ /	:

RECORD RETURNED BY	DATE	TIME	
	/ /	:	SHIPPING NUMBER: 2963020815

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 917 96L051

JACOBS ENGINEERING GROUP INC. I//R6C1

600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1600 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: [redacted] Inc.

PROJECT NUMBER: 05G47900

630 Maple Avenue

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED / DILUTE	QC	CONDITION ON RECEIPT
20	CR-A160001	12/14/96	10:50	DDS	4 DDS	40 mL VOA	4C HCl p	W	SW8240 MS/MSD OK	M	T=2C
21	CR-A160002	12/14/96	10:50	DDS	4 DDS	1 L Amber Glass	4 deg C	W	SW8270 MS/MSD	M	
22	CR-A160003	12/14/96	10:50	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
23	CR-A160004	12/14/96	10:30	DDS	2 DDS	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470 MS/MSD	M	
24	CR-A160005	12/16/96	11:33	DDS	2	40 ml VOA	HCl	W	SW8240 OK		D

DDS

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
Dan Schultz	12/16/96	14:30	14-day

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	12/17/96	10:15		/ /	:

RECORD RETURNED BY	DATE	TIME
	/ /	:

SHIPPING NUMBER: 296 302 0804

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96L051 I1/R6C1 410 918

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1602 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
25	CR-A160201	12/14/96	15:25	DDS	2	40 mL VOA	4C HCl p	W	SW8240 DILUTE ØX		T=2C ✓
26	CR-A160202	12/14/96	15:25	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
27	CR-A160203	12/14/96	15:25	DDS	~~1~~ 2	~~1 L~~ Plastic 500-ml	4C HNO3	W	SW6010 Trace SW7470		
28	CR-A160204	12/14/96	15:00	DDS	~~1~~ 2	~~1 L~~ Plastic 500-ml	4C HNO3	W	SW6010 Trace SW7470		
29	CR-A160205	12/14/96	18:40	DDS	2	40 ml VOA	HCl	W	SW8240		
30	CR-A160206	12/14/96	18:40	DDS	2	1-L amber	none	W	SW8270		
31	CR-A160207	12/14/96	18:40	DDS	1	1-L plastic	HNO_3	W	SW600 TR / SW7470		
										DDS	

COMMENTS: Note that metals are in 2 x 500 ml containers

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	12/16/96	14:30	14-day		
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	12/17/96	10:15		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2963020804		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 912

JACOBS ENGINEERING GROUP INC. 96L051 I1/RGCI

600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1603

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: EMAX Inc.

PROJECT NUMBER: 05G47900

630 Maple Avenue

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
32	CR-A160301	12/14/96	17:35	DDS	2	40 mL VOA	4C HCl p	W	SW8240 DILUTE ØX		T=2C
33	CR-A160302	12/14/96	17:35	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
34	CR-A160303	12/14/96	17:35	DDS	~~1~~ DDS ~~1 L~~ 2	Plastic 500 ml	4C HNO3	W	SW6010 Trace SW7470		
35	CR-A160304	12/14/96	17:00	DDS	~~1~~ DDS ~~1 L~~ 2	Plastic 500 ml	4C HNO3	W	SW6010 Trace SW7470		
											DDS
36	CR-A160305	12/14/96	17:10	DDS	2	40 ml VOA	HCl	W	SW8240 ØX		T=2C
											DDS

COMMENTS: Note that metals are in 2 x 500 ml

COLLECTED & RELEASED BY: Dan Schmitt	DATE 12/16/96	TIME 14:30	TURNAROUND TIME: 14-DAY		
RECEIVED BY: [signature]	DATE 12/17/96	TIME 10:15	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :	SHIPPING NUMBER: 2963020804		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96L039

96L039 M4/M5/R6C3 410 921

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1545 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: ENLY Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
1	CR-A154501	12/10/96	09:45	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4°C
2	CR-A154502	12/10/96	09:35	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
3	CR-A154503	12/10/96	09:50	BN	1	1" Sleeve	4 deg C	S	SW8240		
4	CR-A154504	12/10/96	09:40	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 12/11/96

COMMENTS:

	DATE	TIME		DATE	TIME
COLLECTED & RELEASED BY [signature]	12/11/96	17:00	TURNAROUND TIME 14 day		
RECEIVED BY [signature]	12/12/96	10:00	RELINQUISHED BY	/ /	:
RECORD RETURNED BY	/ /	:			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 922

96L039

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1546

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

PROJECT NUMBER: 05G47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX Inc.
630 Maple Avenue
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
5 CR-A154601	12/10/96	11:05	BN	1	1" Sleeve	4 deg C	S	SW8240 NOTE: Take sample from red capped end.		T=4°C
6 CR-A154602	12/10/96	11:10	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
7 CR-A154603	12/10/96	11:15	BN	1	1" Sleeve	4 deg C	S	SW8240		
8 CR-A154604	12/10/96	11:17	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 12/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
[signature]	12/11/96	17:00	14 day		
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	12/12/96	10:30 am		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

961039 410 923

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1547 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EXAL Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
~~CR-A154701~~	~~/ /~~	~~:~~		~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~ BN 12/10/96		
~~CR-A154702~~	~~/ /~~	~~:~~		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~ BN 12/10/96		
9 CR-A154703	12/10/96	13:20	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4°C
10 CR-A154704	12/10/96	13:10	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 12/4/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Kelly	12/11/96	17:00	14 day		
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	12/12/96	10:00 am		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 924 96L039

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1548 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: [illegible] Inc.
PROJECT NUMBER: 05047900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
✓ 11 CR-A154001	12/10/96	14:50	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4°C
✓ 12 CR-A154002	12/10/96	14:35	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
✓ 13 CR-A154003	12/10/96	14:45	BN	1	1" Sleeve	4 deg C	S	SW8240		
✓ 14 CR-A154004	12/10/96	14:40	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 12/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
[signature]	12/11/96	17:00	14 day		
RECEIVED BY [signature]	12/12/96	10:00 AM	RELINQUISHED BY	/ /	:
RECORD RETURNED BY	/ /	:			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96L039 410 925

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1549 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
✓15 CR-A154901	12/10/96	15:28	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4°C
✓16 CR-A154902	12/10/96	15:30	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
✓17 CR-A154903	12/10/96	15:32	BN	1	1" Sleeve	4 deg C	S	SW8240		
✓18 CR-A154904	12/10/96	15:34	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
					BN	12/11/96				

COMMENTS:

COLLECTED & RELEASED BY	DATE 12/10/96	TIME 17:00	TURNAROUND TIME	14 day	
RECEIVED BY	DATE 12/12/96	TIME 10:00 AM	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 926 96L039

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1562 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47904
630 Maple Avenue
WBS CODE: 505-41
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
19	CR-A156201	12/10/96	16:25	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4C
20	CR-A156202	12/10/96	16:30	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
21	CR-A156203	12/10/96	16:32	BN	1	1" Sleeve	4 deg C	S	SW8240		
22	CR-A156204	12/10/96	16:35	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
23	CR-A 156205	12/10/96	18:10	BN	2	40 ml VOA	HCL	W	SW8240		
24	CR-A 156206	12/10/96	18:10	BN	2	1L Amber	4°C	W	SW8270		
25	CR-A 156207	12/10/96	18:10	BN	1	1L Plastic	HNO3	W	SW6010 Trace SW7470		

BN 12/11/96

COMMENTS: ~~14 day turnaround for samples CR-A~~ BN

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
[signature]	12/11/96	17:00	14 day ~~except CR-A562 thru CR-A1620~~ BN		
RECEIVED BY [signature]	12/12/96	10:00	RELINQUISHED BY	/ /	:
RECORD RETURNED BY	/ /	:			

SHIPPING NUMBER: 2963020830

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96L039

410 927

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1563

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: EMAI Inc.
630 Maple Avenue
Torrance CA 90503-

PROJECT NUMBER: 05G47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
26 CR-A156301	12/11/96	10:55	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4C
27 CR-A156302	12/11/96	10:52	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		↓
~~CR-A156303~~	/ /	:		~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~ BN		
~~CR-A156304~~	/ /	:		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~ BN		

BN 12/11/96

COMMENTS:

	DATE	TIME		DATE	TIME
COLLECTED & RELEASED BY [signature]	12/11/96	17:00	TURNAROUND TIME 14 day		
RECEIVED BY [signature]	12/12/96	10:00	RELINQUISHED BY	/ /	:
RECORD RETURNED BY	/ /	:			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 928 96L039

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1564

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: EMAX Inc.

PROJECT NUMBER: 05G47900

630 Maple Avenue

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
28 CR-A156401	12/11/96	13:20	BN	~~1~~ 2	1" Sleeve	4 deg C	S	SW8240	M	T=4C
29 CR-A156402	12/11/96	13:25	BN	~~1~~ 2	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270	M	
~~CR-A156403~~	~~12/11/96~~		~~BN~~	~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~ BN		
~~CR-A156404~~	~~12/11/96~~		~~BN~~	~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~ BN		

BN 12/11/96

COMMENTS:

	DATE	TIME			
COLLECTED & RELEASED BY [signature]	12/11/96	17:00	TURNAROUND TIME	14 day	
RECEIVED BY [signature]	12/12/96	10:20	RELINQUISHED BY	DATE	TIME
RECORD RETURNED BY	DATE	TIME			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96L039 410 929

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1565 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05647900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
39 CR-A156501	12/11/96	14:12	BN	1	1" Sleeve	4 deg C	S	SW8240		T=4°C
31 CR-A156502	12/11/96	14:00	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		↓
~~CR-A156503~~	/ /	:		~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~ BN		
~~CR-A156504~~	/ /	:		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~ BN		

BN 12/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
[signature]	12/11/96	17:00	14 day		
RECEIVED BY [signature]	12/12/96	10:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 930 96L039

JACOBS ENGINEERING GROUP INC. CR-A1612
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: Background Study (EMAX Resample)
PROJECT NUMBER: 05G47900
WBS CODE: 503-01A
SUBCONTRACT / D.O. No.
LABORATORY NAME & ADDRESS: EMAX Inc. 630 Maple Ave. Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
32	CR-A 161201	12/11/96	08:20	BN	1	8 oz. jar	4°C	S	SW8270		T=4°C
33	CR-A 161202	12/11/96	08:47	BN	1	8 oz. jar	4°C	S	SW8270		
34	CR-A 161203	12/11/96	09:20	BN	1	1" sleeve	4°C	S	SW8240		
35	CR-A 161204	12/11/96	09:30	BN	1	8 oz. jar	4°C	S	SW8270		
36	CR-A 161205	12/11/96	15:21	BN	2	40ml VOA	~~4°C~~ HCL	W	SW8240		
37	CR-A 161206	12/11/96	15:30	BN	2	40ml VOA	HCL	W	SW8240		
38	CR-A 161207	12/11/96	15:30	BN	2	1L Amber	4°C	W	SW8270		
39	CR-A 161208	12/11/96	15:30	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7470		

BN 12/11/96

COMMENTS:

BN

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
D. Bryan Neely	12/11/96	17:00	14 day ~~for CR-A161201 thru CR-A161207 only~~		
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	12/12/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2963020830		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96L032

96L032 I3/I4/WC3 410 932

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1610

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

PROJECT NUMBER: 05GA7900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX Inc.
630 Maple Avenue
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
32	CR-A161001	12/7/96	17:25	DDS	2	40 mL VOA	4C HCl p	W	SW8240 DILUTE ØX		T=2C
33	CR-A161002	12/7/96	17:25	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
34	CR-A161003	12/7/96	17:25	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
35	CR-A161004	12/7/96	16:40	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
36	CR-A161005	12/8/96	09:05	DDS	2	40 ml VOA	HCl	W	SW8240 ØX		
37	CR-A161006	12/8/96	09:05	DDS	2	1-L amber	none	W	SW8270		
38	CR-A161007	12/8/96	09:05	DDS	1	1-L plastic	HNO_3	W	SW6010 TRACE / SW7470		
									DDS		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	12/9/96	19:30			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible]	12/10/96	10:[illegible]		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2963020841		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 933 962032 I3/I4/WC3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1609

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

PROJECT NUMBER: 05G47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: MAX Inc.
630 Maple Avenue
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
25	CR-A160901	12/7/96	14:20	DDS	2	40 mL VOA	4C HCl p	W	SW8240 Ox		T=2°C
26	CR-A160902	12/7/96	14:20	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
27	CR-A160903	12/7/96	14:20	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
28	CR-A160904	12/7/96	11:40	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
29	CR-A160905	12/7/96	18:30	DDS	2	40mL VOA	HCl	W	SW8240 Ox		
30	CR-A160906	12/7/96	18:30	DDS	2	1-L amber	none	W	SW8270		
31	CR-A160907	12/7/96	18:30	DDS	1	1-L plastic	HNO3	W	SW6010 TRACE/SW7470		

DDS

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	12/9/96	19:30			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	12/10/96	18:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2963020841		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

961032 I3/I4/WC3 410 934

CR-A1606 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05647900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
21	CR-A160601	12/8/96	17:45	BN	~~2~~ 4	40 mL VOA	4C HCl p	W	SW8240 MS/MSD Dilute ØX	M	T=2'C
22	CR-A160602	12/8/96	17:45	BN	~~2~~ 4	1 L Amber Glass	4 deg C	W	SW8270 MS/MSD	M	
23	CR-A160603	12/8/96	17:45	BN	~~1~~ 2	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470 MS/MSD	M	
24	CR-A160604	12/8/96	17:00	BN	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		

MS

COMMENTS:

	DATE	TIME		DATE	TIME
COLLECTED & RELEASED BY: Dan Schuh	12/9/96	19:30	TURNAROUND TIME		
RECEIVED BY: [signature]	12/10/96	10:00 Am	RELINQUISHED BY	/ /	:
RECORD RETURNED BY	/ /	:			
			SHIPPING NUMBER: 296 3020841		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 935

96L032 I3/I4/WC3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1605 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: RMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
13 CR-A160501	12/9/96	16:10	BN	2	40 mL VOA	4C HCl p	W	SW8240 Dilute ØX		T=2°C
14 CR-A160502	12/9/96	16:10	BN	2	1 L Amber Glass	4 deg C	W	SW8270		
15 CR-A160503	12/9/96	16:10	BN	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
16 CR-A160504	12/9/96	15:40	BN	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
17 CR-A160505	12/9/96	17:50	BN	2	40mL VOA	HCL	W	SW8240 ØX		
18 CR-A 160506	12/9/96	17:50	BN	2	1L Amber	4°C	W	SW8270		
19 CR-A 160507	12/9/96	17:50	BN	1	1L Plastic	HNO_3	W	SW6010 TRACE/SW7470		
20 CR-A 160508	12/9/96	16:20	MS	2	40ml VOA	HCl	W	SW8240 ØX		
								MS		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	12/9/96	19:30			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	12/10/96	10:00 AM		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2963020841		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

JACOBS ENGINEERING GROUP INC. 961032 I3/I4/WC3 410 930
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1604 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
9	CR-A160401	12/9/96	12:20	DDS	2	40 mL VOA	4C HCl p	W	SW8240 Dilute ØX		T=2C
10	CR-A160402	12/9/96	12:20	DDS	2	1 L Amber Glass	4 deg C	W	SW8270		
11	CR-A160403	12/9/96	12:20	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		
12	CR-A160404	12/9/96	11:29	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470		

DDS

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	12/9/96	19:30			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible]	12/10/96	10 [illegible]		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2963020841		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 937

96L032 I3/I4/WC3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1601

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

PROJECT NUMBER: 05G47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: HGAI Inc.
630 Maple Avenue
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	Dilute	QC	CONDITION ON RECEIPT
1	CR-A160101	12/8/96	12:40	DDS	2	40 mL VOA	4C HCl p	W	SW8240	OX		T=2C
2	CR-A160102	12/8/96	12:40	DDS	2	1 L Amber Glass	4 deg C	W	SW8270			
3	CR-A160103	12/8/96	12:40	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470			
4	CR-A160104	12/8/96	11:30	DDS	1	1 L Plastic	4C HNO3	W	SW6010 Trace SW7470			
5	CR-A160105	12/8/96	12:50	DDS	2	40ml VOA ~~1-L Plastic~~	HCl	W	SW8240	OX		
6	CR-A160106	12/8/96	12:50	DDS	2	1-L amber	none	W	SW8270			
7	CR-A160107	12/8/96	12:50	DDS	1	1-L Plastic	HNO_3	W	SW6010 TRACE / SW7470			
8	CR-A160108	12/8/96	11:40	DDS	1	1-L Plastic	HNO_3	W	SW 6010 TRACE / SW7470			
									DDS			

COMMENTS:

COLLECTED & RELEASED BY: Dan Schultz	DATE 12/9/96	TIME 19:30	TURNAROUND TIME		
RECEIVED BY: [signature]	DATE 12/10/96	TIME 10:00 AM	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER: 2963020841		

DISTRIBUTION WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96K120

96K120 CR-A1592

410 939

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DC21)

PROJECT NUMBER: 05647900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX, INC.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
✓1	CR-A 159201	11/20/96	0945	DDS	2	40ml VOA	HCL	W	SW8240		T=3°C
✓2	CR-A 159202	11/20/96	0945	DDS	2	1L Amber	4°C	W	SW8270		
✓3	CR-A 159203	11/20/96	0945	DDS	1	1L Plastic	HNO_3	W	SW6010 TRACE SW7471		
✓4	CR-A 159204	11/20/96	0950	DDS	1	~~8~~ 4 oz. JAR	4°C	S	SW8240		
5✓	CR-A 159205	11/20/96	0950	DDS	1	8 oz. JAR	4°C	S	SW6010 TR SW7471 SW8270		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
D. Bryan Neely	11/21/96	17:00	

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
J. Slater	11/22/96	9:45 am		/ /	:

RECORD RETURNED BY	DATE	TIME	SHIPPING NUMBER:
	/ /	:	

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 940 96K120 N4WC1WC4

JACOBS ENGINEERING GROUP INC. CR-A1593

600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (0021)

PROJECT NUMBER: 05E47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX, Inc.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
6	CR-A 159301	11/20/96	1040	DDS ZW	2	40 ml VOA	HCL	W	SW8240		T=3°C
7	CR-A 159302	11/20/96	1040	DDS	2	1L Amber	4°C	W	SW8270		
8	CR-A 159303	11/20/96	1040	DDS	1	1L Plastic	HNO_3	W	SW6010 Trace SW7471		
9	CR-A 159304	11/20/96	1045	DDS	1	4 oz. JAR	4°C	S	SW8240		
10	CR-A 159305	11/20/96	1045	DDS	1	8 oz. JAR	4°C	S	SW6010 Trace SW7471 SW8270		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
D. Bryan Melby	11/21/96	1700	

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	11/22/96	9:45 AM		/ /	:

RECORD RETURNED BY	DATE	TIME	SHIPPING NUMBER:
	/ /	:	

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96K120 N4/WCR/WC4

410 941

JACOBS ENGINEERING GROUP INC. CR-A1594

600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

OJECT NAME: CARSWELL AFB (D021)

PROJECT NUMBER: 05E47900

WBS CODE: 50501

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX, Inc.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
11	CR-A 159401	11/20/96	1220	BN	2	40 ml VOA	HCL	W	SW8240		T=3°C
12	CR-A 159402	11/20/96	1220	BN	2	1L Amber	4°C	W	SW8270		
13	CR-A 159403	11/20/96	1220	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7471		
14	CR-A 159404	11/20/96	1225	BN	1	4 oz. jar	4°C	S	SW8240		
15	CR-A 159405	11/20/96	1225	BN	1	8 oz. JAR	4°C	S	SW6010 Trace SW7471 SW8270		
16	CR-A 159406	11/20/96	1220	BN	2	40 ml VOA	HCL	W	SW8240		
17	CR-A 159407	11/20/96	1220	BN	2	1L Amber	4°C	W	SW8270		
18	CR-A 159408	11/20/96	1220	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7471		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Neely	11/21/96	17:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	11/22/96	9:45 AM		/ /	
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 942 96K120 N4/WC1/WC4 CR-A1595

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

OJECT NAME: CARSWELL AFB (D021)

PROJECT NUMBER: 05E47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX, Inc.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
19	CR-A 159501	11/20/96	1330	BN	2	40ml VOA	HCL	W	SW8240		T=3 cm
20	CR-A 159502	11/20/96	1330	BN	2	1L Amber	4°C	W	SW8270		
21	CR-A 159503	11/20/96	1330	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7471		
22	CR-A 159504	11/20/96	1335	BN	1	4 oz. jar	4°C	S	SW8240		
23	CR-A 159505	11/20/96	1335	BN	1	8 oz. jar	4°C	S	SW6010 Trace SW7471 SW8270		
24	CR-A 159506	11/20/96	1225	BN	1	4 oz. jar	4°C	S	SW8240		
25	CR-A 159507	11/20/96	1225	BN	1	8 oz. jar	4°C	S	SW6010 Trace SW7471 SW8270		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Neely	11/21/96	1700			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	11/22/96	9:45 AM		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96K120 N4/WC1 / WCL

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1596

410 943

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL (0021)

PROJECT NUMBER: 05647900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX, Inc.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
26	CR-A 159601	11/20/96	1410	BN	2	40ml VOA	HCL	W	SW8240		T=3°C
27	CR-A 159602	11/20/96	1410	BN	2	1L Amber	4°C	W	SW8270		
28	CR-A 159603	11/20/96	1410	BN	1	1L Plastic	HNO3	W	SW6010 Trace SW7471		
29	CR-A 159604	11/20/96	1415	BN	1	4oz. jar	4°C	S	SW8240		
30	CR-A 159605	11/20/96	1415	BN	1	8oz. jar	4°C	S	SW6010 Trace SW7471 SW8270		

COMMENTS:

COLLECTED & RELEASED BY D. Bryan Neely	DATE 11/21/96	TIME 17:00	TURNAROUND TIME		
RECEIVED BY J. Slater	DATE 11/22/96	TIME 9:45 AM	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 941 96K120 N4/WR11 CR-A1597

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

OJECT NAME: CARSWELL (D021)

PROJECT NUMBER: 05547900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: EMAX, Inc.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
31	CR-A 159701	11/20/96	1500	BN	2	40ml VOA	HCL	W	SW8240		T=3°C
32	CR-A 159702	11/20/96	1500	BN	2	1L Amber	4°C	W	SW8270		
33	CR-A 159703	11/20/96	1500	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7471		
34	CR-A 159704	11/20/96	1505	BN	1	4 oz. jar	4°C	S	SW8240		
35	CR-A 159705	11/20/96	1505	BN	1	8 oz. jar	4°C	S	SW6010 Trace SW7471 SW8270		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Neely	11/21/96	17:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
J. Baker	11/22/96	9:45 am		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96K120 N4/WCI INC CR-A1598

410 945

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL (D021)

LABORATORY NAME & ADDRESS: EMAX, Inc. 630 Maple Avenue Torrance, CA 90503

PROJECT NUMBER: 05E47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
36	CR-A 159801	11/20/96	1545	BN	2	40ml VOA	HCL	W	SW8240		T=3°C
37	CR-A 159802	11/20/96	1545	BN	2	1L Amber	4°C	W	SW8270		
38	CR-A 159803	11/20/96	1545	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW 7471		
39	CR-A 159804	11/20/96	1550	BN	1	4oz. jar	4°C	S	SW8240		
49	CR-A 159805	11/20/96	1550	BN	1	8oz. jar	4°C	S	SW6010 Trace SW7471 SW8270		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
D. Bryan Kelly	11/21/96	17:00	

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
J. Slater	11/22/96	9:45 AM		/ /	:

RECORD RETURNED BY	DATE	TIME	SHIPPING NUMBER:
	/ /	:	

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 946 96K120 N4/WC1/WC4 CR-A1599

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (D021)
PROJECT NUMBER: 05647900
WBS CODE: 505-01
SUBCONTRACT / D.O. No.

LABORATORY NAME & ADDRESS: E MAX, Inc.
630 Maple Avenue
Torrance, CA 90503

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
41	CR-A 159901	11/20/96	1625	BN	4	40ml VOA	HCL	W	SW8240	M	T=3C
42	CR-A 159902	11/20/96	1625	BN	3	1L Amber	4°C	W	SW8270	M	
43	CR-A 159903	11/20/96	1625	BN	2	1L Plastic	HNO_3	W	SW6010 Trace SW7471	M	
44	CR-A 159904	11/20/96	1630	BN	1	4oz. jar	4°C	S ~~W~~	SW8240	M	
45	CR-A 159905	11/20/96	1630	BN	2	8oz. jar	4°C	S	SW6010 Trace SW7471 SW8270	M	
46	CR-A 159906	11/20/96	1700	BN	2	40ml VOA	HCL	W	SW8240		
47	CR-A 159907	11/20/96	1700	BN	2	1L Amber	4°C	W	SW8270		
48	CR-A 159908	11/20/96	1700	BN	1	1L Plastic	HNO_3	W	SW6010 Trace SW7471		
49	CR-A 159909	11/21/96	1500	BN	2	40ml VOA	HCL	W	SW8240		

COMMENTS: CR-A159904 does not have double volume. Complete MS/MSD from double volume for CR-A159905 if possible.

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
[signature]	11/21/96	17:00	

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	11/22/96	9:45 AM		/ /	:

RECORD RETURNED BY	DATE	TIME	
	/ /	:	SHIPPING NUMBER:

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96K097

96K097 H2/R6B1 410 948

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1536 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
1	CR-A153601	11/16/96	8:03	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
2	CR-A153602	11/16/96	8:00	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
3	CR-A153603	11/16/96	8:08	MJ	1	1" Sleeve	4 deg C	S	SW8240		
4	CR-A153604	11/16/96	8:13	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 11/18/96

COMMENTS:

COLLECTED & RELEASED BY: D. Bryan Neely	DATE 11/18/96	TIME 17:00	TURNAROUND TIME		
RECEIVED BY: J. S. [illegible]	DATE 11/19/96	TIME 11:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 919 96K097 H2/R6B1

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1537 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: RMI Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
5✓	CR-A153701	11/16/96	9:07	MJ	1	1" Sleeve	4 deg C	S	SW8240		Toxic
6✓	CR-A153702	11/16/96	8:46	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
7✓	CR-A153703	11/16/96	8:55	MJ	1	1" Sleeve	4 deg C	S	SW8240		
8✓	CR-A153704	11/16/96	9:16	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
9✓	CR-A153705	11/16/96	9:12	MJ	1	1" Sleeve	4°	S	SW 8240		
10✓	CR-A 153706	11/16/96	8:50	MJ	1	8 oz jar	4°	S	SW 6010, 7471 SW 8270		
11✓	CR-A 153707	11/16/96	9:00	MJ	1	1" Sleeve	4°	S	SW 8240		
12✓	CR-A 153708	11/16/96	9:26	MJ	1	8 oz jar	4°	S	SW 6010, 7471 SW 8270		

BN 11/18/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Lynn Kelly	11/18/96	12:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	11/19/96	11:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96K097 H2/R6B1 410 950

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1538

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
13	CR-A153801	11/16/96	10:25	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2C
14	CR-A153802	11/16/96	10:12	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
15	CR-A153803	11/16/96	10:37	MJ	1	1" Sleeve	4 deg C	S	SW8240		
16	CR-A153804	11/16/96	10:31	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 4/18/96

COMMENTS:

COLLECTED & RELEASED BY: D. Bryan Neely	DATE 11/18/96	TIME 17:00	TURNAROUND TIME		
RECEIVED BY: [signature]	DATE 11/19/96	TIME 11:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 951

96K097 H2/REB1

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8357

CR-A1539 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: EMAX Inc.

PROJECT NUMBER: 05G47900

630 Maple Avenue

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
17	CR-A153901	11/16/96	11:12	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
18	CR-A153902	11/16/96	11:15	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
19	CR-A153903	11/16/96	11:20	MJ	1	1" Sleeve	4 deg C	S	SW8240		
20	CR-A153904	11/16/96	11:29	MJ	2	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270	M	

BN 11/18/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Neely	11/18/96	17:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
J. Lutel	11/19/96	11:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 952

961K097 H2/R6B1

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1540 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: RMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
21	CR-A154001	11/16/96	12:07	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
22	CR-A154002	11/16/96	11:56	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
23	CR-A154003	11/16/96	12:15	MJ	1	1" Sleeve	4 deg C	S	SW8240		
24	CR-A154004	11/16/96	12:21	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
25	CR-A 154005	11/16/96	14:33	MJ	2	40 ml VOA	HCl	W	SW 8240		
26	CR-A 154006	11/16/96	14:42	MJ	2	1 L Amber	4°	W	SW 8270		
27	CR-A 154007	11/16/96	14:56	MJ	1	1 L Plastic	HNO3	W	SW6010, 7471		
28	CR-A 154008	11/16/96	15:00	MJ	2	2 40 ml VOA	HCl	W	SW 8240		

D.BW 11/18/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Neely	11/18/96	17:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/19/96	11:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 953

96K097 H2/R6B1

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1541

CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: EMAX Inc.

PROJECT NUMBER: 05G47900

630 Maple Avenue

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
29	CR-A154101	11/18/96	08:00	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
30	CR-A154102	11/18/96	08:10	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
31	CR-A154103	11/18/96	08:30	BN	1	1" Sleeve	4 deg C	S	SW8240		
32	CR-A154104	11/18/96	08:15	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 11/18/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
W. Bryan Neely	11/18/96	1700			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	11/19/96	11:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 951 96K097 H2/R6B1

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1542 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMLY Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
33	CR-A154201	11/8/96	10:00	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
34	CR-A154202	11/8/96	10:05	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
35	CR-A154203	11/8/96	10:10	BN	1	1" Sleeve	4 deg C	S	SW8240		
36	CR-A154204	11/8/96	10:15	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		

BN 4/18/96

COMMENTS:

COLLECTED & RELEASED BY D. Bryan Neely	DATE 11/18/96	TIME 17:00	TURNAROUND TIME		
RECEIVED BY	DATE 11/15/96	TIME 11:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 955 96K097 H2/REB1

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1544 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAT Inc.
PROJECT NUMBER: 95G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESER-VATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
	~~CR-A154401~~	/ /	:		~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~ BN		
	~~CR-A154402~~	/ /	:		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~ BN		
38	CR-A154403	11/18/96	13:30	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
40	CR-A154404	11/18/96	13:40	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
41	CR-A 154405	11/18/96	15:14	MJ	2	40 ml VOA	HCl	W	SW8240		
42	CR-A 154406	11/18/96	15:25	MJ	2	1 l Amber	4°C	W	SW8270		
43	CR-A 154407	11/18/96	15:32	MJ	1	1 l Plastic	HNO3	W	SW 6010, 7471		
									BN 11/18/96		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
D. Bryan Meely	11/18/96	17:00	

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	11/19/96	11:00		/ /	:

RECORD RETURNED BY	DATE	TIME
	/ /	:

SHIPPING NUMBER:

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96K097 H2/R6B1 410 956

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1543 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
~~CR-A154301~~	/ /	:		1	1" Sleeve	4 deg C	S	SW8240 BN		
~~CR-A154302~~	/ /	:		1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270 BN		
37 CR-A154303	11/18/96	12:40	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2C?
38 CR-A154304	11/18/96	12:30	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		↓

BN 11/18/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
D. Bryan Neely	11/18/96	17:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible]	11/19/96	11:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96K047

410 958 96K047 L4/LS/R6C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1525 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAI Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
CR-A152501	11/19/96	2:40	MJ	1	1" Sleeve	4 deg C	S	SW8240	T=2°C	1
CR-A152502	11/19/96	2:25	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BY SW7471 SW8270		2
CR-A152503	11/19/96	2:51		1	1" Sleeve	4 deg C	S	SW8240		3
CR-A152504	11/19/96	2:32	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BY SW7471 SW8270		4

11/19/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/19/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
M. Dy	11/12/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 959 96KD47 L4/L5/R6C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1526 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: BDAT Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
CR-A152601	11/9/96	15:31	MJ	1	1" Sleeve	4 deg C	S	SW8240	T=2°C	5
CR-A152602	11/9/96	15:36	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		6
~~CR-A152603~~	/ /	:	MJ	1	1" Sleeve	4 deg C	S	SW8240		
~~CR-A152604~~	/ /	:	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN ~~SW7471~~ ~~SW8270~~		
CR-A1526 04	11/9/96	16:27	MJ	2	40 ml VOA	HCl	W	SW8240		7
CR-A 152605	11/9/96	16:33	MJ	2	1 l Amber	4 deg	W	SW 8270		8
CR-A 1526 06	11/9/96	16:39	MJ	1	1 l Amber	H_2SO_4	W	E418.1		9
CR-A 152607	11/9/96	16:43	MJ	1	1 l Pkstic	HNO_3	W	SW6010Tr, SW7471		1
			MJ		11/1/96					

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
MJ	11/11/96	18:00			
RECEIVED BY M. Dey	11/12/96	10:00	RELINQUISHED BY	/ /	:
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 960 96K047 L4/L5/R6C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1527 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: MAX Inc.
PROJECT NUMBER: 05C47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
CR-A152701	11/10/96	8:06		1	1" Sleeve	4 deg C	S	SW8240	T=2°C	11
CR-A152702	11/10/96	8:04	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BW SW7471 SW8270		12
CR-A152703	11/10/96	8:16	MJ	1	1" Sleeve	4 deg C	S	SW8240		13
CR-A152704	11/10/96	8:11	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BW SW7471 SW8270		14

11/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
	11/11/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/12/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 961 96RD47 L4/L5/R6 CY

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1528 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
630 Maple Avenue
Torrance CA 90503-

PROJECT NUMBER: 05G47900
WBS CODE: 505-01
SUBCONTRACT / D.O. No.

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT	
CR-A152801	11/10/96	09:30	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2°C	15
CR-A152802	11/10/96	09:20	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270			16
CR-A152803	11/10/96	09:40	BN	1	1" Sleeve	4 deg C	S	SW8240			17
CR-A152804	11/10/96	09:45	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ AN SW7471 SW8270			18
CR-A152805	11/10/96	09:30	BN	1	1" Sleeve	4°C	S	SW8240			19
CR-A152806	11/10/96	09:20	BN	1	8 oz Jar	4 deg°	S	SW6010 Trace SW7471 SW8270			20
CR-A152807	11/11/96	17:33	MJ	2	40ml VOA	4°	W	SW8240			21
~~CR-A152808~~ MJ											

MJ 11/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
M. [illegible]	11/11/96	18:00			
RECEIVED BY M. Dy	11/12/96	10:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 962 96K041 L7/L5/ K6C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1529 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: BDAT Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
CR-A152901	11/10/96	10:37	MJ	1	1" Sleeve	4 deg C	S	SW8240	T=2°C	22
CR-A152902	11/10/96	10:42	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		23
CR-A152903	11/10/96	11:00	MJ	1	1" Sleeve	4 deg C	S	SW8240		24
CR-A152904	11/10/96	10:47	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		25
CR-A 152905	11/10/96	10:37	MJ	1	1" Sleeve	4°	S	SW 8240		26
CR-A 152906	11/10/96	10:42	MJ	1	8 oz G/LSS	4°	S	SW 6010 SW 7471 SW 8270		27
CR-A 152907	11/10/96	10:47	MJ	1	8 oz G/LSS	4°	S	SW 6010 SW 7471 SW 8270		28
CR-A 152908	11/10/96	11:00	MJ	1	1" Sleeve	4°	S	SW 8240		29

11/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/11/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
M. Lyn	11/12/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 963 96K047 L4/L5 R6C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1530 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: [redacted] Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
CR-A153001	11/10/96	13:36	MJ	1	1" Sleeve	4 deg C	S	SW8240	4=2°C	30
CR-A153002	11/10/96	13:04	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		31
CR-A153003	11/10/96	13:46	MJ	1	1" Sleeve	4 deg C	S	SW8240		32
CR-A153004	11/10/96	13:15	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		33
CRA 153006	11/10/96	13:04	MJ	1	8 oz glass	4°	S	SW6010 SW7471 SW8270		34
CR-A 153007	11/10/96	13:41	MJ	1	1" Sleeve	4°	S	SW8240		35
CR-A 153008	11/10/96	13:08	MJ	1	8 oz Jar	4°	S	SW6010 SW7471 SW8270		36
CR-A 153009	11/10/96	13:50	MJ	1	1" Sleeve	4°	S	SW8240		37
					MJ		11/11/96			

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
[signature]	11/11/96	18:00			
RECEIVED BY [signature]	DATE 11/12/96	TIME 10:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 961 96R047 L4/L5/R6 C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1531 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT T=2°C
~~CR-A153101~~	/ /	:		~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~		
~~CR-A153102~~	/ /	:		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace BN ~~SW7060~~ SW7471 SW8270~~		
CR-A153103	11/10/96	14:33	MJ	2	1" Sleeve	4 deg C	S	SW8240	MS/MSD	38
CR-A153104	11/10/96	14:21	MJ	2	8 oz. Jar	4 deg C	S	SW6010 Trace BN ~~SW7060~~ SW7471 SW8270	MS/MSD	39

11/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
	11/11/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
M. Dyer	11/12/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 965 96KD47 L4/L5/R6 C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1532 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: ECLY Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT T=2°C
CR-A153201	11/10/96	15:33 ~~15:12~~	MJ	1	1" Sleeve	4 deg C	S	SW8240		40
CR-A153202	11/10/96	15:21	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		41
CR-A153203	11/10/96	15:43	MJ	1	1" Sleeve	4 deg C	S	SW8240		42
CR-A153204	11/10/96	15:25	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		43
CR-A 153205	11/10/96	1615	MJ	2	2 40ml VOA	HCl	W	SW 8240		44
CR-A 153206	11/10/96	1622	MJ	2	1L Amber	—	W	SW 8270		45
CR-A 153207	11/10/96	1630	MJ	1	1L Plastic		W	SW 6010 SW7471		46

11/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/11/96	18:00			
RECEIVED BY M. Lyn	11/12/96	10:00	RELINQUISHED BY	DATE	TIME
RECORD RETURNED BY	DATE	TIME			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 966 96K047 L4/L5/R6CY

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1569 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED T=2°C	QC	CONDITION ON RECEIPT
CR-A156901	11/9/96	8:32	BN	1	4 oz. Jar	4 deg C	S	E418.1		47
CR-A156902	11/9/96	~~8:32~~ 8:47 MJ	BN	1	4 oz. Jar	4 deg C	S	E418.1		48
~~CR-A156903~~	~~11/9/96~~	~~9:32~~		~~1~~	~~4 oz. Jar~~	~~4 deg C~~	~~S~~	~~E418.1~~		
CR-A156904	11/9/96	9:32	MJ	1	4 oz. Jar	4 deg C	S	E418.1		49
CR-A156905	11/9/96	10:~~15~~ 30	MJ	1	4 oz. Jar	4 deg C	S	E418.1		50
CR-A156906	11/9/96	10:30	MJ	1	4 oz. Jar	4 deg C	S	E418.1		51

11/11/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/11/96	18:00			
RECEIVED BY M. Dyer	11/12/96	10:00	RELINQUISHED BY	DATE	TIME
				/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 967 46KD47 L4/L5/R6C4

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1570 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: [illegible] Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED T=2°C	QC	CONDITION ON RECEIPT
CR-A157001	11/19/96	11:16	MJ	1	4 oz. Jar	4 deg C	S	E418.1		√2
CR-A157002	11/19/96	11:27	MJ	1	4 oz. Jar	4 deg C	S	E418.1		√3
CR-A157003	11/11/96	8:36	MJ	1	4 oz. Jar	4 deg C	S	E418.1		√4
CR-A157004	11/11/96	8:52	MJ	1	4 oz. Jar	4 deg C	S	E418.1		√5
~~CR-A157005~~	/ /	:		~~1~~	~~4 oz. Jar~~	~~4 deg C~~	~~S~~	~~E418.1~~ MJ		
CR-A157006	11/11/96	9:55	MJ	1	4 oz. Jar	4 deg C	S	E418.1		√6
CR-A 157007	11/11/96	8:55	MJ	1	4 oz Jar	4°	S	E418.1		√7
					MJ	11/11/96				T=1.6°C

COMMENTS

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
MJ	11/11/96	16:00			
RECEIVED BY M. [illegible]	11/12/96	10:00	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER:		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96K088

96K088 H2/R6C2 410 969

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1533 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
~~CR-A153301~~	~~11/15/96~~	~~8:26~~	~~MJ~~	~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~		
~~CR-A153302~~	~~/ /~~	~~:~~		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~		
1 CR-A153303	11/15/96	8:38	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2C ✓
2 CR-A153304	11/15/96	8:26	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		✓

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schuch	11/15/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[illegible signature]	11/16/96	9 am		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2149885861		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 970 96K088 H2/R6C2

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1534 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
3	CR-A153401	11/15/96	9:14	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2C W
4	CR-A153402	11/15/96	9:25	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
	~~CR-A153403~~	/ /	:		~~1~~	~~1" Sleeve~~	~~4 deg C~~	~~S~~	~~SW8240~~ MJ		
	~~CR-A153404~~	/ /	:		~~1~~	~~8 oz. Jar~~	~~4 deg C~~	~~S~~	~~SW6010 Trace SW7471 SW8270~~ MJ		

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	11/15/96	18:00			
RECEIVED BY	**DATE**	**TIME**	**RELINQUISHED BY**	**DATE**	**TIME**
[illegible]	11/16/96	9:[illegible]		/ /	:
RECORD RETURNED BY	**DATE**	**TIME**			
	/ /	:			
			SHIPPING NUMBER: 2149885861		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

96K085 H2/RGC2 410 971

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1535 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
5	CR-A153501	11/15/96	11:35	MJ	1	1" Sleeve	4 deg C	S	SW8240		T=2C
6	CR-A153502	11/15/96	9:57	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
7	CR-A153503	11/15/96	11:40	MJ	1	1" Sleeve	4 deg C	S	SW8240		
8	CR-A153504	11/15/96	10:07	MJ	1	8 oz. Jar	4 deg C	S	SW6010 Trace SW7471 SW8270		
9	CR-A 153505	11/15/96	16:30	MJ	2	40 ml VOAs	HCl	W	SW8240		
10	CR-A 153506	11/15/96	16:38	MJ	2	1 l Amber	4°	W	SW8270		
11	CR-A 153507	11/15/96	16:44	MJ	1	1 l Plastic ~~Amber~~	HNO_3	W	SW6010, SW7471		
12	CR-A 153508	11/15/96	16:30	BN	2	40 ml VOAs	4°C	WQ	SW8240		

DOS

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
Dan Schultz	11/15/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
[signature]	11/16/96	9:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2149885861		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

EMAX Batch No. 96K042

410 973 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1519 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
1	CR-A151901	11/8/96	9:00	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2C-
2	CR-A151902	11/8/96	8:40	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
3	CR-A151903	11/8/96	9:05	BN	1	1" Sleeve	4 deg C	S	SW8240		
4	CR-A151904	11/8/96	8:45	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		

11/8/96

COMMENTS:

~~COLLECTED & RELEASED BY~~	DATE 11/8/96	TIME 18:00	TURNAROUND TIME		
RECEIVED BY J S Patel	DATE 11/9/96	TIME 10:00 AM	RELINQUISHED BY	DATE / /	TIME :
RECORD RETURNED BY	DATE / /	TIME :			
			SHIPPING NUMBER: 24988581 38 4		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 974 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1520 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
5	CR-A152001	11/8/96	10:20	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
6	CR-A152002	11/8/96	10:05	BN	~~1~~ 2	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
7	CR-A152003	11/8/96	10:25	BN	1	1" Sleeve	4 deg C	S	SW8240		
8	CR-A152004	11/8/96	10:10	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/8/96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2149885814		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 975 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1521 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
9	CR-A152101	11/8/96	11:20	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2°C
10	CR-A152102	11/8/96	11:10	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
11	CR-A152103	11/8/96	11:30	BN	1	1" Sleeve	4 deg C	S	SW8240		
12	CR-A152104	11/8/96	11:15	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/8/96	8:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2149885814		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 976 96KC42 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1522 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)

LABORATORY NAME & ADDRESS: EMAX Inc.
630 Maple Avenue
Torrance CA 90503-

PROJECT NUMBER: 05G47900

WBS CODE: 505-01

SUBCONTRACT / D.O. No.

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
13	CR-A152201	11/8/96	13:50	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2 cv
14	CR-A152202	11/8/96	13:55	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
15	CR-A152203	11/8/96	14:00	BN	1	1" Sleeve	4 deg C	S	SW8240		
16	CR-A152204	11/8/96	14:10	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME
	11/8/96	18:00	

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:00		/ /	:

RECORD RETURNED BY	DATE	TIME	SHIPPING NUMBER
	/ /	:	2149885814

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 977 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1523 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
17	CR-A152301	11/8/96	15:10	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2C
18	CR-A152302	11/8/96	14:55	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
19	CR-A152303	11/8/96	15:20	BN	1	1" Sleeve	4 deg C	S	SW8240		
20	CR-A152304	11/8/96	15:00	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
21	CR-A15235	11/8/96	17:30	NJ	2	40 ml VOA	4deg HCl	W	SW8240		
22	CR-A 152306	11/8/96	17:35	NJ	2	1L Amber	4deg	W	SW8270		
23	CR-A 152307	11/8/96	17:40	NJ	1	1L Plastic	HNO_3	W	SW6010 Trace, SW7421		
24	CR-A 152308	11/8/96	17:56	NJ	2	40 ml VOA	HCl	W	SW8240		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/8/96	1800			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2149885814		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 973 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1524 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
25	CR-A152401	11 18 96	16:20	BN	1	1" Sleeve	4 deg C	S	SW8240		T=2C
26	CR-A152402	11 18 96	16:00	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		
27	CR-A152403	11 18 96	16 30	BN	1	1" Sleeve	4 deg C	S	SW8240		
28	CR-A152404	11 18 96	16 05	BN	1	8 oz. Jar	4 deg C	S	SW6010 Trace ~~SW7060~~ BN SW7471 SW8270		

11/18/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11 18 96	18:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11 19 96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2149885814		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 979 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1566 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAI Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
29	CR-A156601	11/6/96	11:00	BN	1	4 oz. Jar	4 deg C	S	E418.1		T=2C
	~~CR-A156602~~	/ /	:		~~1~~	~~4 oz. Jar~~	~~4 deg C~~	~~S~~	~~E418.1~~		BN
30	CR-A156603	11/6/96	13:20	BN	1	4 oz. Jar	4 deg C	S	E418.1		T=2C
31	CR-A156604	11/6/96	13:30	BN	1	4 oz. Jar	4 deg C	S	E418.1		
32	CR-A156605	11/6/96	13:50	BN	1	4 oz. Jar	4 deg C	S	E418.1		
33	CR-A156606	11/6/96	13:58	BN	1	4 oz. Jar	4 deg C	S	E418.1		
34	CR-A156607	11/6/96	16:45	DS	1	1-L amber	H_2SO_3	W	E418.1		
35	CR-A156608	11/7/97	16:30	DS	1	1-L amber	H_2SO_3	W	E418.1		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME	DATE	TIME
	11/5/96	1800			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2149885814		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 980 : 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1567 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: RMX Inc.
PROJECT NUMBER: 05G47900
630 Maple Avenue
WBS CODE: 505-01
SUBCONTRACT / D.O. No.
Torrance CA 90503-

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
36	CR-A156701	11/6/96	14:45	BN	1	4 oz. Jar	4 deg C	S	E418.1		T=2°C
	~~CR-A156702~~	/ /	:		~~1~~	~~4 oz. Jar~~	~~4 deg C~~	~~S~~	~~E418.1~~		BN
37	CR-A156703	11/6/96	15:15	BN	1	4 oz. Jar	4 deg C	S	E418.1		T=2°C
38	CR-A156704	11/6/96	16:05	BN	1	4 oz. Jar	4 deg C	S	E418.1		
39	CR-A156705	11/6/96	16:40	BN	1	4 oz. Jar	4 deg C	S	E418.1		
40	CR-A156706	11/6/96	16:55	BN	1	4 oz. Jar	4 deg C	S	E418.1		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/8/96	1800			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:AM		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:			
			SHIPPING NUMBER: 2147885814		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 981 96K042 F5/F6/R6B3

JACOBS ENGINEERING GROUP INC.
600 SEVENTEENTH STREET, SUITE 1100N DENVER, COLORADO 80202
TELEPHONE (303) 595 - 8855 FAX (303) 595 - 8857

CR-A1568 CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK

PROJECT NAME: CARSWELL AFB (DO 21)
LABORATORY NAME & ADDRESS: EMAX Inc.
630 Maple Avenue
Torrance CA 90503-

PROJECT NUMBER: 05G47900
WBS CODE: 505-01
SUBCONTRACT / D.O. No.

	SAMPLE NUMBER	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	QC	CONDITION ON RECEIPT
41	CR-A156801	11/7/96	13:00	BN	1	4 oz. Jar	4 deg C	S	E418.1		T=2°C
42	CR-A156802	11/7/96	13:10	BN	1	4 oz. Jar	4 deg C	S	E418.1		
43	CR-A156803	11/7/96	14:00	BN	1	4 oz. Jar	4 deg C	S	E418.1		
44	CR-A156804	11/7/96	14:10	BN	1	4 oz. Jar	4 deg C	S	E418.1		
45	CR-A156805	11/7/96	14:50	BN	1	4 oz. Jar	4 deg C	S	E418.1		
46	CR-A156806	11/7/96	15:00	BN	1	4 oz. Jar	4 deg C	S	E418.1		

11/8/96

COMMENTS:

COLLECTED & RELEASED BY	DATE	TIME	TURNAROUND TIME		
	11/8/96	16:00			
RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
	11/9/96	10:00		/ /	:
RECORD RETURNED BY	DATE	TIME			
	/ /	:	SHIPPING NUMBER: 2498858.4		

DISTRIBUTION: WHITE - PROJECT FILE / CANARY - LAB RECEIPT / PINK - DATA MANAGEMENT / GOLDENROD - FIELD

410 982

TAB

Appendix C

APPENDIX C

Soil Probe Boring Logs

Naval Air Station, Fort Worth Background Study Report
January 1998

410 981

BORING LOG

Borehole ID: BJETA501
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Iserhart	Ground Elevation	Total Drilled Depth: 5 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2 in.		Date/Time Drilling Started: 11/8/96 08:30	Date/Time Total Depth Reached: 11/8/96 09:05	
Type of Sampling Device: 1"x2' w/ SS and 2"x4' w/ Plastic Sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type — Driving Wt. — Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook): Grass Island along 183				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Silty Clay (CL) - Very dark grayish brown (10YR 3/2) grading to brown (10YR 4/3) clay with 20-30% silt and 15% 1/32 to 1/2 in. rounded gravel.	CL		Sl.	Collect BJETA501-A Moist
2				Percentage of gravel and coarse sand increases with depth.				
3				NOTE: Bottom 6 in. is light yellowish brown (10YR 6/4) clay with weathered limestone fragments (~30%).	CL		Sl.	Moist Collect BJETA501-B
4				4.2 Limestone - White (10YR 8/1) Limestone fragments with clay matrix.	LS		Dry	
5				Probe refusal at 5 ft.				
6								
7								
8								
9								

410 985

BORING LOG

Borehole ID: BJETA 502
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4.0 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2 in.	Date/Time Drilling Started: 11/8/96 10:00	Date/Time Total Depth Reached: 11/8/96 10:25
Type of Sampling Device: 2" x 4' w Plastic & 1"x2' w/ SS sleeves.		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook): Between two rows of houses (common backyards) Approx. 200' N of 183

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Silty Sandy Clay (CL) - Very dark gray (10YR3/1) clay with sand (fine) and 10-25% silt.	CL		Sl.	Collect BJETA502-A Moist
2				Silty Gravelly Clay (CL) - Light gray (10YR7/2) clay with silt and fine gravel. Inclusions of white (10YR8/1) highly weathered limestone.	CL		Sl.	Moist Collect BJETA502-B
4				Bottom of probe at 4.0 ft				
5								
6								
7								
8								
9								

410 986

Borehole ID: BJETA503
Sheet 1 of 1

BORING LOG

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4.0 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2 in.	Date/Time Drilling Started: 11/8/96 11:05	Date/Time Total Depth Reached: 11/8/96 11:30
Type of Sampling Device: 1"x2' w/SS and 2"x4' w/Plastic Sleeves		Water Level (bgs) First —	Final —	
Sample Hammer Type: Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Silty Clay (CL) - Very dark gray (10YR 3/1) clay with 10-30% silt, <5% fine gravel.	CL		Sl. Moist	Collect BJETA503-A
2								
3				Clayey Silt (ML) - Light gray (10YR 7/1) silt with 20% clay. 10% coarse sand and fine gravel. Weathered Goodson Limestone (?).	ML		Dry	Collect BJETA503-B
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

410 987

BORING LOG

Borehole ID: BJETA504
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4.0 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2 in.	Date/Time Drilling Started: 11/8/96 13:50	Date/Time Total Depth Reached: 11/8/96 14:10
Type of Sampling Device: 1"x2' w/SS and 2"x4' w/Plastic Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark grayish brown (10YR 3/2) clay with silt and fine gravel.	CL		Sl. Moist	Collect BJETA504-A
2								
				2.5				
3				Clayey Silt (ML) - Light gray (10YR 7/2) silt with 30% clay. Very hard with inclusions of white (10YR 8/1) weathered limestone.	ML		Sl. Moist	Collect BJETA504-B
4				Bottom of probe at 4.0 ft.				
5								
6								
7								
8								
9								

410 988

Borehole ID: BJETA505
Sheet 1 of 1

BORING LOG

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GED Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 8 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter	Date/Time Drilling Started: 11/8/96 14:50	Date/Time Total Depth Reached: 11/8/96 15:10	
Type of Sampling Device: 1"x2' w/SS and 2"x4' w/Plastic liners		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark gray (10YR 3/1) clay with 10% rounded gravel. Roots to 10 in. deep. High organic content.	CL		Sl. Moist	Collect BJETA505-A
3				Clayey Silt (ML) - Light gray (10YR 7/2) silt with 30-40% clay and 10% inclusions of highly weathered limestone fragments 1/32 to 1/2 in. in size.	ML		Dry	Collect BJETA505-B
8				Bottom of probe at 8 ft.				

AFCEE FORM BL.0

410 989

BORING LOG

Borehole ID: BJETA506
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 8 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2 in.	Date/Time Drilling Started: 11/8/96 16:00	Date/Time Total Depth Reached: 11/8/96 16:30
Type of Sampling Device: 1"x2' w/SS & 2"x4' w/Plastic Sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto Driving Wt. — Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) – Very dark grayish brown (10YR 3/2) clay with silt (10%). Roots to 8 in. deep. Organic rich clay.	CL		Sl. Moist	Collect BJETA506-A
2				Grades to a dark yellowish brown (10YR 4/4) clay with more silt (25%) and fine grained sized moderately weathered limestone fragments.				
3								
4								Collect BJETA506-B
5				NOTE: Lithology below 5 ft. continues as clay (CL), but contains increasing amounts of silt (up to 40%) and therefore not as plastic as soils above.				
6								
7								
8				Bottom of probe at 8 ft.				
9								

AFCEE FORM BL.0

410 930

BORING LOG

Borehole ID: BJETA507
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GED Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 8.0 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter	Date/Time Drilling Started: 11/9/96 14:05	Date/Time Total Depth Reached: 11/9/96 14:50	
Type of Sampling Device: 1"x2' w/ SS and 2"x4' w/ Plastic Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto, Driving Wt. —, Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay Fill (CL) - Very dark grayish brown (10YR 3/2) with red clay inclusions and roots. Grassy/Rooted layer at 1.3 ft. deep.	CL Fill		Slightly	- Fill Material -
2, 3, 4, 5				Sandy Clay (CL) - Very dark gray (10YR 3/1) clay with 25% to 35% fine sand, Hard and dry. Gradual change in color to very dark brown (10YR 2/2) at 4.5 to 5.0 ft. Becomes more brittle and hard with depth.	CL		Dry	Collect sample from 1.3-3.5 (BJETA507-A) 2.5-3.0 for VOCs
6, 7, 8				Clayey Sand (SC) - Reddish yellow (7.5YR 6/6) fine sand with clay and <15% silt. Hard, brittle and dry. Approx. 15% white (10YR 8/1) highly weathered limestone fragments.	SC		Dry	Collect sample from 6-8 7-7.5 for VOCs (BJETA507-B)
9				Bottom of probe at 8.0 ft				

410 991

BORING LOG

Borehole ID: B10 ~~BH1A5D7~~
Sheet 1 of 2

			Location	
Project Name NASFW Background Study	Project Number 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company Geoprojects	Driller Jose Landeros	Ground Elevation	Total Drilled Depth 27'	
Drilling Equipment CME 75 / Drilling Method HSA / Borehole Diameter 8"		Date/Time Drilling Started 11/19/96 9:11	Date/Time Total Depth Reached 11/19/96 1026	
Type of Sampling Device Continuous 5' Split barrel		Water Level (bgs) First N/A	Final N/A	
Sample Hammer Type Lift / Driving Wt. / Drop		Hydrogeologist M. Johnson	Checked by/Date	

Location Description (include sketch in field logbook)
NE of Whitney Housing School

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (include all sample types & depth, odor, organic vapor measurements, etc.)
				Fill - 7.5YR 3/3 Dark Brown, Sandy Clay ~10% Sand F-C subrounded to round w/ root hairs. Plastic. Moist. Stiff.			MOIST	0ppm 100% rec
2.5				Sandy Clay - 10% sand Fine. Plastic. Moist w/ root hairs. Very dark grey 7.5YR 3/1. Crumbly			MOIST	
5				Gravelly Sandy Clay. Gravel is fine 3/8" rounded to subrounded weathered limestone. Sand - rounded to subrounded Fine to coarse. Slightly moist, stiff Brown 7.5YR 5/4			MOIST	40% rec 0ppm
7.5								10% rec
10								
12.5								
15				Sand - Fine poorly graded w/ pelecypod shells 10YR 6/4 light yellowish brown with occasional horizontal yellow staining.			MOIST	5% rec
20								10% rec
25								

410 992

BORING LOG

Borehole ID: BWETA507
Sheet 2 of 2

			Location: BWETA507	
Project Name: NBSEW BACKGROUND	Project Number: 05L4AP08	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GeoProbe	Driller: José Lambros	Ground Elevation	Total Drilled Depth: 27'	
Drilling Equipment: CME75	Drilling Method: HSA	Borehole Diameter: 8"	Date/Time Drilling Started: 11/19/96 911	Date/Time Total Depth Reached: 11/19/96 1026
Type of Sampling Device: 5'L x 25" Split barrel		Water Level (bgs) First: N/A	Final: N/A	
Sample Hammer Type: N/A Driving Wt. Drop		Hydrogeologist: M. JOHNSON	Checked by/Date	

Location Description (include sketch in field logbook): Nr. of Wherry Housing School.

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				SAME w/ increase of shells and fine gravel				50% rec.
27.5				Limestone, competent.				
30				EOB 27'				

410 993

BORING LOG

Borehole ID: BJETA508
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 2.3 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2in.	Date/Time Drilling Started: 11/9/96 15:20	Date/Time Total Depth Reached: 11/9/96 16:00
Type of Sampling Device: 1"x2' w/SS and 2"x4' w/ Plastic Sleeve		Water Level (bgs) First —	Final —	
Sample Hammer Type: Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark grayish brown (10YR3/2) clay with silt and <5% fine sand. Roots to 10 in. deep. Moderate plasticity - Soft.				Collect Sample from 0-1 (BJETA508-A)
2				Limestone - White (10YR8/1) slightly weathered limestone. Very hard.				-No Sample-
3				Refusal on limestone at 2.3 ft.				
4								
5								
6								
7								
8								
9								

410 991

BORING LOG

Borehole ID: BJETA509
Sheet 1 of 1

			Location NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4.0 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2 in.	Date/Time Drilling Started: 11/10/96 07:50	Date/Time Total Depth Reached: 11/10/96 08:20
Type of Sampling Device: 2"x4' and 1"x2' with sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto Driving Wt. — Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1 2				Clay (CL) - Very dark grayish brown (10YR3/2) clay with 15-20% fine sand, 5% medium and coarse sand, and 20-30% silt. Roots to 1 ft. deep. Soft and only slightly to moderately cohesive.	CL		Sl. Moist	Collect BJETA509-A
3				Sandy Clay (CL) - Very dark grayish brown (10YR3/2) clay with 25-35% fine sand, 5% medium and coarse sand. Much drier and harder than soil above.	CL		Dry	Collect BJETA509-B
4				Limestone with Clay Matrix - Brown (7.5YR4/4) clay matrix w/ 30%-60% rounded limestone fragments.	CL/Rock		Dry	
5 6 7 8 9				Bottom of probe at 4.0 ft.				

AFCEE FORM BL.0

410 995

NOTE: This location is 45 [redacted] ft. north of painted curb and fire hydrant.

BORING LOG

Borehole ID: BJETA51D
Sheet 1 of 1

Location: NASFW				
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 3.4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2 in.		Date/Time Drilling Started: 11/10/96 09:00	Date/Time Total Depth Reached: 11/10/96 09:45	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2'		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto, Driving Wt. —, Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark gray (5YR 3/1) to dark reddish brown (5YR 3/3) clay with sand and silt. Roots to 6 in. deep. Color change is transitional along interval. Soft and plastic soil.	CL		Sl. moist	HNU = 0 ppm Collect BJETA51D-A and BJETA51D-AFD
2				Clay/Clayey Sand (CL/SC) - Dusky red (2.5YR 4/2) clay with zones of clayey sand. Limestone fragments 1/8 to 1.5 in. in diameter	CL/SC		Dry	HNU = 0 ppm Collect BJETA51D-B
3				Weathered Limestone - Limestone in clay matrix.				
4				Probe refusal at 3.4 ft. on limestone bedrock.				
5								
6								
7								
8								
9								

410 996

BORING LOG

Borehole ID: BJETAS11
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GED Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 8.0 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2 in	Date/Time Drilling Started: 11/10/96 10:15	Date/Time Total Depth Reached: 11/10/96 10:45	
Type of Sampling Device: 1"x2' w/ SS and 2"x4' w/ Plastic Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto, Driving Wt. —, Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook): 83' north of 3/6 Gen. Arnold Blvd.

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark gray (10YR 3/1) clay with 10% fine sand and [redacted] silt. Moderately to strongly cohesive. Roots to 14 in. deep. Slight color change near 4 ft. to dark reddish brown [redacted] (5YR 3/2), becomming harder and greater % of fine sand. Change to SM/SC below is abrupt (change over approx 4 in.)	CL		Moist	HNU = 0ppm Collect BJETAS11-A and BJETAS11-AFD
2								
3								
4				4.2				
5				Silty/Clayey Sand (SM/SC) - Reddish brown clay matrix with rounded to subrounded weathered limestone fragments. Fragments represent >50% of total and are 1/8 to 1/2 in. in diameter.	SM/SC		Dry	Collect BJETAS11-B and BJETAS11-BFD (duplicate sleeves were from 5.5-6 for N1 and 5-5.5 for FD1
6								
7				7.7				
8				Limestone Bedrock				
9				Bottom of probe at 8.0 ft.				

410 997

BORING LOG

Borehole ID: BJETAS12
Sheet 1 of 2

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 10.5 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2 in.	Date/Time Drilling Started: 11/10/96 12:50	Date/Time Total Depth Reached: 11/10/96 13:30	
Type of Sampling Device: 1"x2' w/SS and 2"x4' w/Plastic Sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Sandy Clay (CL) - Very dark gray (10YR3/1) clay with fine sand and silt. Roots to 1.5 ft. deep including 1/2 in tree roots. Soft and cohesive.	CL		Moist	HNU = 0 ppm Collect BJETAS12-A and BJETAS12-AFD
2				(TRANSITIONAL CHANGE)				
3								
4				Silty Clayey Sand [redacted] (SM/SC) - Dark yellowish brown (10YR4/4) sand with clay and silt. Sand is mostly fine with some medium and coarse grains. Approx. 25% highly weathered limestone fragments 1/8 to 1 in. in diameter.	SM/SC		Dry	HNU = 0 ppm Collect BJETAS12-B and BJETAS12-BFD
5								
6								
7								
8				8.5				
9				Weathered Limestone - White (10YR 8/1) limestone bedrock highly weathered to fine grained sand with 25% clay and silt. Approx. 10% solid moderately weathered fragments 1/8 to 1 in. in diameter.			Dry	

AFCEE FORM BL.0

410 993

BORING LOG

Borehole ID: BJETAS12
Sheet 2 of 2

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 10.5 ft	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2 in	Date/Time Drilling Started: 11/10/96 12:50	Date/Time Total Depth Reached: 11/10/96 13:30	
Type of Sampling Device: See pg. 1 of 2		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Limestone Bedrock (See pg. 1 of 2)				
1				Refusal at 10.5 ft. on Limestone				
2								
3								
4								
5								
6								
7								
8								
9								

410 990

BORING LOG

Borehole ID: BJETA513
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 6 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2 in.		Date/Time Drilling Started: 11/10/96 14:10	Date/Time Total Depth Reached: 11/10/96 14:30	
Type of Sampling Device: 2" x 4' w/ Plastic and 1" x 2' w/SS Sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (include all sample types & depth, odor, organic vapor measurements, etc.)
1				No samples collected from this interval - location for deep sample only				X
2–4				Sandy Clay (CL) - Dark yellowish brown (10YR 3/4) clay with fine sand. Hard and brittle. Moderately cohesive when hydrated. Roots found from 2-3 ft. deep. Zone from 4 to 6 ft. has increasing amounts (25%) of highly weathered limestone fragments 1/8 to 1/4 in. in diameter.				Hnu = 0 ppm Collect [redacted] BJETA5B-B
6				Bottom of probe at 6.0 ft.				
7								
8								
9								

4101000

BORING LOG

Borehole ID: BJETA514
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2 in.		Date/Time Drilling Started: 11/10/96 15:10	Date/Time Total Depth Reached: 11/10/96 15:45	
Type of Sampling Device: 2"x4' w/ Plastic and 1"x2' w/ SS Sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark grayish brown (10YR 3/2) clay with 20-35% fine sand. Soft and moderately cohesive as is - more strongly cohesive when hydrated. Roots up to 1/2 in. to depths up to 2 1/2 ft.	CL		Sl. moist	HNU = 0 ppm Collect BJETA514-A
2								
3				(TRANSITIONAL CHANGE)				
4				Sandy Clay (CL) - Light yellowish brown (2.5Y 6/3), white (2.5Y 8/1) and olive yellow (2.5Y 6/6) clay with fine sand and moderately to highly weathered limestone fragments 1/8 to 1/2 in. in size.	CL		Dry	HNU = 0 ppm Collect BJETA514-B
5								
6				(TRANSITIONAL CHANGE)				
7				Clay and Weathered Limestone - slightly to moderately weathered limestone fragments in a clay matrix. Hard and brittle.			Dry	
8				Refusal at 8.0 ft in Limestone				
9								

4101001

BORING LOG

Borehole ID: BJETAS15
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 6.0 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/15/96 08:00	Date/Time Total Depth Reached: 11/15/96 08:25
Type of Sampling Device: 2"x4' w/ Plastic and 1"x2' w/SS		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto Driving Wt. — Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Sandy Clay (CL) - Brown (10YR 5/3) clay with 30-40% fine sand, 10% medium sand. Roots to 14 in. deep. Zone between 1.5 and 3.2 ft. has increasing amounts of weathered limestone fragments 1/8 to 1/2 in. in size.	CL		Dry	
2								HNU = 0 ppm Collect BJETAS15-B
3				3.2				
4				Sandy/Gravelly Clay - (CL) - Mottled light gray (2.5Y 7/2), white (2.5Y 8/1), and light yellowish brown (2.5Y 6/4) clay with up to 50% coarse sand and fine gravel.	CL		Dry	
5				5.2				
6				Good land Marl - Mottled clay, very stiff and dry.			Dry	
7				Bottom of probe at 6.0 ft.				
8								
9								

AFCEE FORM BL.0

4101002

BORING LOG

Borehole ID: BJETA516
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/15/96 08:55	Date/Time Total Depth Reached: 11/15/96
Type of Sampling Device: 2"x4' w/ Plastic and 1"x2' w/SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Sandy CLAY (CL)/Clayey SAND (SC) - Brown (10YR4/3) clay with sand and sand with clay-mix mixed. Roots to 6 in deep. Non plastic to slightly plastic.	CL/SC		Moist	- No A horizon sample collected. -
				1.2				
2				Clay (CL) - Very dark gray (10YR3/1) clay with <20% fine sand. Root layer from 1.2 to 1.8 ft. Moderately to highly plastic.	CL		Dry	Collect BJETA516-B
3				3.1				
4				Clayey Gravel (GC) - Dark yellowish brown (10YR 4/6) clay matrix with 75% fine gravel and coarse sand. Hard - Dry.	GC		Dry	
5								
6								
7								
8								
9								

No sample collected

4101003

BORING LOG

Borehole ID: BJETA517
Sheet 1 of 3

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 24 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/15/96 09:45	Date/Time Total Depth Reached: 11/15/96 11:30
Type of Sampling Device: 2"x4' w/ Plastic & 2"x1" w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark grayish brown (10YR 3/2) clay with <15% fine sand. Highly plastic, firm, slightly moist	CL		Sl. Moist	Hnu = 0ppm Collect BJETA517-A
2–4				Clayey Sand (SC) - Strong brown (7.5YR 4/6) fine sand with clay. Slightly to moderately plastic, hard. Approx. 10% rounded limestone fragments 1/16 to 1/4 in. in size.	SC		Moist	Hnu = 0ppm Collect BJETA517-B
4.5–9				Sandy Clay (CL) - Yellowish brown (10YR 5/4) clay with fine to coarse sand. Approx. 30% highly weathered limestone fragments 1/8 to 1 in. in diameter. Limestone fragments are white (10YR 8/1), soft and friable. Root traces found throughout this interval	CL		Dry	

AFCEE FORM BL.0

4101004

BORING LOG

Borehole ID: BJETAS17
Sheet 2 of 3

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 24 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/15/96 09:45	Date/Time Total Depth Reached: 11/15/96 11:30
Type of Sampling Device: See pg 1 of		Water Level (bgs) First —	Final —	
Sample Hammer Type: Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
11				(Same as Sandy Clay (CL) described above)				
12								
13								
14				14.0 Clayey/Silty Sand [redacted] (SC/SM) - Yellow [redacted] (2.5Y 7/6) fine sand with clay and silt. Dry, soft and friable. Slightly to non-plastic. Approximately 20% highly weathered, rounded to subrounded limestone fragments 1/4 to 1.5 in. in diameter.				
15								
16								
17								
18								
19								

4101005

BORING LOG

Borehole ID: BJETA517
Sheet 3 of 3

			Location	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 24 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2"		Date/Time Drilling Started: 11/15/96 09:45	Date/Time Total Depth Reached: 11/15/96 11:30	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Heely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
21				(Same Clayey/Silty Sand (SC/SM) as described above)				
22								
23								
24				Bottom of probe at 24 ft.				
25								
26								
27								
28								
29								

4101006

BORING LOG

Borehole ID: BJETA518
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/16/96 07:45	Date/Time Total Depth Reached: 11/16/96 08:10
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS sleeves			Water Level (bgs): First —	Final —
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clay (CL) - Very dark dark grayish brown (10YR 3/2) clay with ≈20% fine sand. Organic matter and roots to 18in deep. Soft and plastic. 1.6	CL		Sl. Moist	Hnu = 0ppm Collect BJETA518-A 0-1 (8oz) 0.5-1 (SS sleeve)
2, 3, 4				Clayey Sand (SC) - Dark yellowish brown (10YR 4/4) sand with clay. Easily breaks into angular pieces. 70% fine sand, 10% medium sand, 20% clay and silt.	SC		Dry	Hnu = 0ppm Collect BJETA518-B 2-4 (8oz) 3-3.5 (SS sleeve)
5, 6, 7, 8, 9				Bottom of probe at 4 ft.				

4101007

BORING LOG

Borehole ID: BJETA519
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/16/96 08:35	Date/Time Total Depth Reached: 11/16/96 09:00	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ PSS Sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clayey Sand (SC) - Dark brown (10YR 3/3) fine sand with clay and silt. Roots to 6 in. deep. Soft, non-plastic to slightly plastic.	SC		Moist	Hnu = 0 ppm Collect BJETA519-A and BJETA519-AFD 0-1.5 (8oz.) 0.3-1 (Sleeve) 1-1.5 (Sleeve)
1.5								
2				Silty Sand (SM) - Light yellowish brown (10YR 6/4) fine sand with silt and <5% clay. Non-plastic.	SM		Dry	Hnu = 0 ppm Collect BJETA519-B and BJETA519-BFD 2-4 (8oz.) 2.5-3 (sleeve) 3-3.5 (sleeve)
3								
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101008

BORING LOG

Borehole ID: BJETA520
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GED Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 8 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/16/96 09:40	Date/Time Total Depth Reached: 11/16/96 10:25	
Type of Sampling Device: 2"x4' w/ Plastic & 2"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1, 2, 3				Clay with Sand (CL) - Very dark grayish brown (10YR 3/2) clay with 20-30% fine sand. Roots to 8 in., soft from 0-12 in., becomming harder at 12 in. to 36 in.	CL		Moist	Hnu = 0 ppm Collect BJETA520-A 0-2 (8oz) 1-1.5 (sleeve)
				3.6				
4, 5, 6, 7, 8				Clayey Sand (SC) - Yellowish brown (7.5YR 4/6) fine sand with clay and silt. Root traces throughout this section. Most root traces still open. Moderately hard but brittle. Slightly to occasionally moderately plastic when hydrated.	SC		Sl. Moist to Wet	Hnu = 0 ppm Collect BJETA520-B 6-8 (8oz) 7-7.5 (sleeve)
9				Bottom of probe at 8 ft.				

4101003

BORING LOG

Borehole ID: BJETA521
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/16/96 11:00	Date/Time Total Depth Reached: 11/16/96 11:25
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto Driving Wt. — Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				CLAY (CL) - Very dark grayish brown (10YR3/2) clay with <20% fine sand and silt. Roots to 16 in. deep. Soft and moderately to highly plastic. 1.2	CL		Moist	Hnu = 0 ppm Collect BJETA521-A 0-1 (8oz.) 0.5-1 (Sleeve)
2, 3, 4				Clay (CL) - Dark yellowish brown (10YR4/4) clay with 30% fine sand and silt. Less plastic than material above. Harder and more fragments of weathered limestone at approx. 2.8 ft.	CL		Sl. Moist to Dry	Hnu = 0 ppm (MS/MSD) Collect BJETA521-B 2-4 (8oz.) 3-3.5 (Sleeve)
5, 6, 7, 8, 9				Bottom of probe at 4 ft.				

4101010

BORING LOG

Borehole ID: BJETA522
Sheet 1 of 2

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Iserhart	Ground Elevation	Total Drilled Depth: 16 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/16/96 11:55	Date/Time Total Depth Reached: 11/16/96 12:30
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1, 2, 3				Clay (CL) - Dark brown (10YR 3/3) clay with <10% fine sand. Roots to 8 in. deep. Soft and highly plastic. Between 2 and 3.7 ft. material becomes harder and has 1/16 to 1/8 in. hard, black, rounded fragments, possibly iron nodules.	CL		Moist	Hand (Inoperable) Collect BJETA522-A 0-2 (8 oz.) 1-1.5 (sleeve)
				3.7				
4, 5				Sandy Clay (CL) - Brown (N4R 5/3) clay with 20-30% fine sand, Approx. 10% highly weathered limestone fragments.	CL		Dry	Collect BJETA522-B 4-5 (8 oz.) 4-4.5 (sleeve)
				5.0				
6				Clayey Sand (SC) - Brown (10YR 4/3) and white (10YR 8/1) fine sand with 30 to 40% clay. Roots and root traces. Very hard.	SC		Dry	
				6.8				
7, 8, 9				Poorly Graded Sand (SP) - Very pale brown (10YR 7/4) fine sand with silt. Extremely weak and friable.	SP		Dry	

4101011

BORING LOG

Borehole ID: BJETA522
Sheet 2 of 2

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 16 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2"		Date/Time Drilling Started: See pg. 1	Date/Time Total Depth Reached: See pg. 1	
Type of Sampling Device: See pg. 1		Water Level (bgs): First —	Final -	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				(See pg. 1)				
11				105 Well [redacted] Graded Sand with Gravel (SP)- Yellowish Brown (10YR 5/6) fine, medium, and coarse sand, and fine gravel. Black (10YR 2/1), dark reddish brown (5YR 3/4) and white (10YR 8/1) fragments 1/32 to 1/4 in. in size. Occasional zones poorly graded sands (SP) 4 to 6 in. thick. Shells up to 1 inch long.	SW		Dry to Slightly Moist	
12								
13								
14								
15								
16				Bottom of probe at 16 ft.				
17								
18								
19								

4101012

BORING LOG

Borehole ID: BJETA523
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 9 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/18/96 07:50	Date/Time Total Depth Reached: 11/18/96 08:35
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS sleeves		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Sandy Clay (CL) - Very dark gray (10YR 3/1) clay with 20-40% fine sand. Soft, moderately plastic. Roots to 6in. deep.	CL		Moist	Collect BJETA523-A 0-1.5 (8oz.) 1-1.5 (sleeve)
2				(TRANSITIONAL CHANGE)				
3				Clayey Sand (SC) - Dark grayish brown (10YR 4/2) fine sand with clay and silt. Firmer than soil above. Slightly plastic, No Roots.	SC		Sl. Moist	
4								
5								
6								
7				7.0 Silty/Clayey Sand (SM/SC) - Yellowish brown (10YR 5/6) ~~white~~ fine sand with 20-30% clay and silt. Approx. 30% white (5Y 8/1) highly weathered limestone inclusions.	SM/SC		Dry	Collect BJETA523-B 7-8 (8oz.) 7.5-8 (sleeve)
8								
9				Bottom probe at 9 ft.				

4101013

BORING LOG

Borehole ID: BJETA524
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 8 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/18/96 09:55	Date/Time Total Depth Reached: 11/18/96 10:30	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs) First —	Final —	
Sample Hammer Type: Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1, 2				Sandy Clay (CL) - Very dark gray (10YR 3/1) clay with 20-30% fine sand. Moderately plastic and soft. Roots to 12 in. deep	CL		Moist	Collect BJETA524-A (Possible fill) 0-2 (8oz.) 1-1.5 (sleeve)
				2.5				
3, 4				Same Sandy Clay (CL) as above but color change to dark grayish brown (10YR 4/2) and increase in fine sand content.	CL		Sl. Moist	
5				5.0				
6, 7				Gravelly Clay (CL) - Very dark grayish brown (10YR 3/2) clay matrix with up to 50% fine to coarse sand and fine gravel.	CL		Dry	Collect BJETA524-B (Possible fill) 6-7 (8oz) 6-6.5 (sleeve)
				7.2				
8				Poorly Graded/Well Graded Sands (SP/SW) - Interlayered zones of poorly graded fine sand and well graded fine to coarse sand			Dry	
9				Bottom of probe at 8 ft.				

4101014

BORING LOG

Borehole ID: BJETA525 ~~524~~
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 5 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/18/96 12:15	Date/Time Total Depth Reached: 11/18/96 12:35	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Clay Fill (CL) - Dark Yellowish brown (10YR 4/4) fill. 0.4				-Fill-
1				Clay (CL) - Very dark gray (10YR 3/2) clay with <10% sand. Very plastic and medium soft. Roots to 10 in. deep.	CL		Moist	No "A" horizon sample collected.
2				(TRANSITIONAL CHANGE)				
3				Clayey Sand (SC) - Brown (10YR 5/3) fine sand with 20-30% clay and silt. Slightly plastic when hydrated. Few roots throughout. ~10% highly weathered limestone fragments 1/32 to 1/4 in. in size.	SC		Dry	Collect BJETA525-B 3-4 (802) 3.5-4 (sleeve)
4								
5				Bottom of probe at 5 ft.				
6								
7								
8								
9								

4101015

BORING LOG

Borehole ID: BJETA526
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 5 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 11/18/96 13:10	Date/Time Total Depth Reached: 11/18/96 13:25	
Type of Sampling Device: 2"x4' w/ Plastic and 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto, Driving Wt. —, Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1, 2				CLAY (CL) - Very dark gray (10YR 3/1) clay with <15% fine sand. Very plastic and soft near top transitioning to less plastic and harder at 2.5 ft. Roots to 8 in. deep.	CL		Moist	No "A" horizon sample collected
3, 4				Sandy CLAY (CL) - Dark yellowish brown (10YR 4/4) clay with 30-40% fine and medium sand. Slightly plastic when hydrated, Hard and brittle.	CL		Sl. Moist to Dry	Collect BJETA526-B 3-4 (8oz) 3.5-4 (sleeve)
5, 6, 7, 8, 9				Bottom of probe at 5 ft.				

4101016

BORING LOG

Borehole ID: BJETAS27
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: OSG47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/10/96 09:16	Date/Time Total Depth Reached: 12/10/96 10:10
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook): East of visitors center

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Silty Clay (CL) - Dark grayish brown (10YR 4/2) clay with 20-40% silt, and 10% fine sand, Roots to 8 in deep. Moderately to highly plastic.	CL		Sl. Moist	Collect BJETAS27-A
2				(TRANSITIONAL CHANGE) Sandy Silty Clay (CL) - Light brown (7.5YR 6/3) clay with 20-30% silt, and 15-30% fine and medium sand, Slightly to moderately plastic.	CL		Sl. Moist	Collect BJETAS27-B
3								
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101017

BORING LOG

Borehole ID: BJETA528
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: OSG47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GED Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/10/96 10:45	Date/Time Total Depth Reached: 12/10/96 11:10	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' SS Sleeve		Water Level (bgs) First —	Final —	
Sample Hammer Type: Auto	Driving Wt. — Drop —	Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Silty Sand (SM) - Dark reddish brown (5YR3/2) fine sand with 20-30% silt and <10% clay. Non-cohesive. Roots (live) to 8 in., roots traces and dead roots to 2.5 ft. deep.	SM		Sl. Moist	Collect BJETA528-A Collect BJETA528-B
2				0.6				
3				Same as silty sand (SM) above but color change to ~~yellowish~~ dark red (2.5YR4/6) with more sand and less clay. Wet zone from 3.2 to 4 ft.	SM		Moist	
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101018

Borehole ID: BJETAS29

Sheet 1 of 1

BORING LOG

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47100	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/10/96 13:00	Date/Time Total Depth Reached: 12/10/96 13:20	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook): Approx. 150 ft. south of Lake Worth & 250 ft. west of Tennis courts.

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Gravelly Clay Fill (CL) - Multicolored clay and gravel fill, prominent angular gravel fill at approx. 1.2 ft.	CL		Sl. Moist	-Fill- No sample collected.
2				2.6 Clayey Sand (SC) - Dark red (2.5YR 4/6) fine and medium sand with <15% clay and silt. Non-cohesive, soft, slightly moist.	SC		Sl. Moist	Collect BJETAS29-B
3								
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101010

BORING LOG

Borehole ID: BJETAS30
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: OSG47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/10/96 ~~1345~~ 14:20	Date/Time Total Depth Reached: 12/10/96 14:45	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto, Driving Wt. —, Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook): Between Tennis courts and Lake along "Lake Shore" drive.

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clayey Sand (SC) - Dark brown (10YR 3/3) fine sand with 20-25% clay. Little organic matter, non-cohesive, soft, Roots to 3 in. deep. 1.0	SC		Sl. moist	Collect BJETAS30-A
2				Silty Sand (SM) - Yellowish brown (10YR 5/6) fine and medium sand with 20-35% silt and <5% clay. Soft, non-cohesive.	SC		Moist	Collect BJETAS30-B
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101020

BORING LOG

Borehole ID: BJETAS31
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2"		Date/Time Drilling Started: 12/10/96 15:23	Date/Time Total Depth Reached: 12/10/96 15:40	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Silty Sand (SM) - Brown fine sand (10YR 5/3) with 20-30% silt and 45% clay. Soft, non-cohesive with roots to 6 in. deep.	SM		Sl. Moist	Collect BJETAS31-A
2				Clayey Sand (SC) - Yellowish red (5YR 5/6) fine sand with 20% clay and 10% medium sand. Soft but hard when dried. Slightly cohesive. Moist with wet zone between 3.6 to 4.0 ft.	SC		Moist	Collect BJETAS31-B
3								
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101021

BORING LOG

Borehole ID: BJETA532
Sheet 1 of 1

			Location NASFW	
Project Name: Background Study	Project Number: 05649900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/10/96 16:10	Date/Time Total Depth Reached: 12/10/96 16:30	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS sleeve		Water Level (bgs) First —	Final —	
Sample Hammer Type: Auto	Driving Wt. — Drop —	Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consisteney, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clayey Sand (SC) - Brown (7.5YR 4/2) fine sand with 20% clay and silt. ~~Slightly~~ Slightly cohesive, soft. Roots to 10 in. 0.8	SC		Sl. Moist	Collect BJETA532-A
2, 3, 4				Poorly Graded Sand (SP) - Dark red (2.5YR 3/6) fine sand, 10% medium sand, <10% clay and silt. Non-cohesive soft and slightly moist to moist.	SP		Sl. Moist	Collect BJETA532-B
5, 6, 7, 8, 9				Bottom of probe at 4 ft.				

4101022

Borehole ID: BJETA533

Sheet 1 of 1

BORING LOG

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/11/96 10:40	Date/Time Total Depth Reached: 12/11/96 11:00
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2" w/ SS sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto Driving Wt. — Drop —		Hydrogeologist: B. Neely	Checked by/Date	

Location Description (include sketch in field logbook)

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Clayey Sand (SC) - Dusky red (2.5YR 4/2) fine sand with clay and <10% silt. Slightly cohesive, soft. Roots to 6 in deep — 1.1 —	SC		Moist	Collect BJETA533-A
2, 3				Clayey/Silty Sand (SC/SM) - Red (2.5YR 5/6) fine sand with 20-30% clay and silt, and <10% medium sand. Slightly cohesive, harder than soil above. Higher percentage of silt than above.	SM/SC		Sl. Moist to Moist	— No sample collected —
4				Bottom of probe at 4 ft.				
5, 6, 7, 8, 9								

4101023

BORING LOG

Borehole ID: BJETA534
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: ~~4 ft.~~ 4.5 ft.	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/11/96 13:10	Date/Time Total Depth Reached: 12/11/96 13:30
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/SS sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook): West of Runway - SE of hangar 1.

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
1				Sandy/Gravelly Clay Fill - Dark gray (5YR 4/1) to reddish brown (5YR 5/4) clay with variable zones of 20-30% fine gravel to 30%-40% fine and medium sand and no gravel. Roots to 1.5 ft. but cut into small parts due to disturbance of soil.				— Fill — No sample collected
2				2.7				
3				Sandy Clay (CL) - Very dark gray (5YR 3/1) clay with 10-20% fine sand, and approx. 10% medium and coarse sand. Moderately cohesive, firm. Roots throughout. Original ground surface ??				Collect BJETA534-A (Original "A" horizon before earthmoving activities)
4								
5				Bottom of probe at 4.5 ft.				
6								
7								
8								
9								

4101021

BORING LOG

Borehole ID: BJETA535
Sheet 1 of 1

			Location NASFW	
Project Name: Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth	
Drilling Equipment: Geoprobe	Drilling Method: Direct Push	Borehole Diameter: 2"	Date/Time Drilling Started: 12/11/96 1400	Date/Time Total Depth Reached: 12/11/96 14:15
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS sleeve			Water Level (bgs) First —	Final —
Sample Hammer Type: Auto	Driving Wt. —	Drop —	Hydrogeologist: B. Neely	Checked by/Date

Location Description (include sketch in field logbook): Located approx. 5 ft. North of dry hole from monitoring well drilling.

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				See log for Auger Drilled boring BJETA535				

4101025

BORING LOG

Borehole ID: BJETA535
Sheet 1 of 2

Location	
BJETA535	

Project Name	Project Number	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
NASFW Background	05647900			

Drilling Company	Driller	Ground Elevation	Total Drilled Depth
GeoProjects	Joe Landeros		29'

Drilling Equipment	Drilling Method	Borehole Diameter	Date/Time Drilling Started	Date/Time Total Depth Reached
CME 75	HSA	8"	12/9/96 1520	1705 12/9/96

Type of Sampling Device	Water Level (bgs) First	Final
5'L x 2.5" dia Split Barrel		

Sample Hammer	Hydrogeologist	Checked by/Date
Type N/A Driving Wt. Drop	M. Johnson	

Location Description (include sketch in field logbook)
Approx 450' N. of LF03-30

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Fill Sandy Clay w/ gravel limestone clasts and root hairs and roots to 1/2" dia. 10YR 4/2 dark grayish brown			moist	
				Sandy Clay, Plastic w iron staining. 10YR 4/1 dark grey				original surface?
5				Gravelly Sandy Clay. Plastic, gravel to 1/2" dia, subrounded. 10YR 4/1 dark gray color change to 10YR 4/3 Brown.			moist.	
10				Clay? w/calcite stringers. 10YR 4/3 Brown				
				Limestone chert, gray 4/1 dark gray w/ Pyrite. Fossiliferous. interbedded with shale and claystone.			moist	re-tool w/center bit and no sampler
15								rig chatter very slow drilling. chatter stopped @ 16'
20							Dry	
25								

4101026

BORING LOG

Borehole ID: BUETA53#5
Sheet 2 of 2

			Location: BUETA53#5	
Project Name: NASFW Background	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: Geo Projects	Driller: Jose' Landeros.	Ground Elevation	Total Drilled Depth: 29'	
Drilling Equipment: CME 75	Drilling Method: HSA	Borehole Diameter: 8"	Date/Time Drilling Started: 12/9/96 1520	Date/Time Total Depth Reached: 1705 12/9/96
Type of Sampling Device: 5' L x 2.5" dia Split Barrel		Water Level (bgs): First —	Final —	
Sample Hammer: Type N/A Driving Wt. Drop		Hydrogeologist: M Johnson	Checked by/Date	

Location Description (include sketch in field logbook): Approx 450' N. of LF03-3D

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
25				Limestone	DRY			
30				TD. 29'				

4101027

BORING LOG

Borehole ID: BJETA ~~[illegible]~~ 536
Sheet 1 of 1

			Location: NASFW	
Project Name: Background Study	Project Number: 05E47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GEO Corp.	Driller: Doug Isenhart	Ground Elevation	Total Drilled Depth: 4 ft.	
Drilling Equipment: Geoprobe / Drilling Method: Direct Push / Borehole Diameter: 2"		Date/Time Drilling Started: 11/15/96 14:00	Date/Time Total Depth Reached: 11/15/96 14:10	
Type of Sampling Device: 2"x4' w/ Plastic & 1"x2' w/ SS Sleeve		Water Level (bgs): First —	Final —	
Sample Hammer: Type Auto / Driving Wt. — / Drop —		Hydrogeologist: B. Neely	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				CLAY (CL) - Very dark grayish brown (10YR 3/2) clay and fine sand fill.				- Fill -
				0.8				
1				CLAY (CL) - Dark reddish brown (5YR 3/4) clay fill -				- Fill -
2								No sample collected
3								
4				Bottom of probe at 4 ft.				
5								
6								
7								
8								
9								

4101028

BORING LOG

Borehole ID: BJETA536
Sheet 1 of 2

			Location: BJETA536	
Project Name: NASFW Background	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GeoProjects	Driller: Joe' Landeros	Ground Elevation	Total Drilled Depth: 26'	
Drilling Equipment: CME 75 / Drilling Method: HSA / Borehole Diameter: 8"		Date/Time Drilling Started: 12/9/96 1200	Date/Time Total Depth Reached: 12/9/96 1332	
Type of Sampling Device: 5'L x 2.5" Split barrel		Water Level (bgs): First —	Final —	
Sample Hammer: Type N/A Driving Wt. Drop		Hydrogeologist: M Johnson	Checked by/Date	

Location Description (include sketch in field logbook): Btwn Active & Parallel & Taxiways ~~A & B~~ C & D

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Fill- Sandy Clay, Plastic w/root hairs 7.5YR 3/1 very dark grey				0ppm Hnu 100% rec.
5				Gravelly Sandy Clay, Limestone clasts subrounded. 2.5YR 6/3 light yellowish brown			V Moist	80% Rec 0ppm.
				Clay w/ trace of Silt?, Plastic 10YR 2/1 Black				
10				Gravelly Sandy Clay, Subrounded Limestone Clasts w/ Shells, 10YR 5/1 grey → encountered large Limestone rock, boulder - float - drill through. → Bottom of boulder			V Moist	90% rec. Rig Chatter, Rig Grinding.
15								poor Rec. ~10% 0ppm
20				Sandy Clay, Plastic, w/ Shells 10YR 5/6 yellowish Brown				100% Rec 0ppm
				Shale 2.5/ grey - Black			Moist	
25								

4101020

BORING LOG

Borehole ID: BJETA536
Sheet 2 of 2

			Location: BJETA536	
Project Name: NASFW BACKGROUND	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: Geo Projects	Driller: Jose' Landeros	Ground Elevation	Total Drilled Depth: 26'	
Drilling Equipment: CME 75 / Drilling Method: HSA / Borehole Diameter: 8"		Date/Time Drilling Started: 12/9/96 1200	Date/Time Total Depth Reached: 12/9/96 1332	
Type of Sampling Device: 5'x2.5" Split Barrel		Water Level (bgs): First —	Final —	
Sample Hammer: Type N/A Driving Wt. Drop		Hydrogeologist: M Johnson	Checked by/Date	

Location Description (include sketch in field logbook): Btwn Active & Parallel and Taxiways C & D

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
25				Shale 2.5/ gray - Black	MOIST			
				EOB = 26'.				
30								

4101030

TAB

Appendix D

APPENDIX D

Monitoring Well Boring Logs, Construction Details, Groundwater Sampling Data Sheets, and Development Records

Naval Air Station, Fort Worth Background Study Report
January 1998

4101032

BORING LOG

Borehole ID: LWETAS30
Sheet 2 of 2

			Location	
Project Name Nastw Background Study	Project Number 05G47900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company GeoProjects	Driller Jose	Ground Elevation	Total Drilled Depth 44.5	
Drilling Equipment / Drilling Method / Borehole Diameter		Date/Time Drilling Started 11/19/96 1045	Date/Time Total Depth Reached 11/19/96 1147	
Type of Sampling Device 5' Split Barrel		Water Level (bgs) First ~40	Final 39'	
Sample Hammer Type N/A Driving Wt. Drop		Hydrogeologist M Johnson	Checked by/Date	

Location Description (include sketch in field logbook)
N. of Wherry Housing School - Fence Corner

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Sandy Clay - Plastic 10%-15% Sand F-C 7.5YR 3/2	CL			Using 5' long barrel Continuously
				Sandy Clay, 15-20% F-m Sand. Calcite Stringers abundant, tr. limestone Fine gravel, Stiff. 10YR 5/4 yellowish brown. Slightly moist				100% rec
5								
					CL			100% rec
10								
								100% rec
15				Silty Sand. Fine, dense, reddish yellow 7.5YR 6/6, 30% Silt, moist Silt content decreasing	SM			
				Sand - Fine, poorly graded 7.5YR 6/6 yellowish brown, moist				100% rec
20								
				SAME - yellow 10YR 7/6	SP			50% rec
25								

4101033

BORING LOG

Borehole ID: WETA530
Sheet 2 of 2

			Location: WETA530	
Project Name: NASW Background Study	Project Number: 05644900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GeoProjects	Driller: Jose	Ground Elevation	Total Drilled Depth: 44.5	
Drilling Equipment: CME 75 / Drilling Method: HSA / Borehole Diameter: 6"		Date/Time Drilling Started: 10:45 11/19/96	Date/Time Total Depth Reached: 11/19/96 11:47	
Type of Sampling Device: 5' Split Barrel		Water Level (bgs) First ~40'	Final 39'	
Sample Hammer: Type / Driving Wt. / Drop		Hydrogeologist: M. Johnson	Checked by/Date	

Location Description (include sketch in field logbook): N. of Whitney Housing School - Fence Corner

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
25				SAME 7.5YR 6/6 yellowish brown	SP			
				Silty Sand ~30% Silt, yellowish brown, subrounded, soft, w/stringers and mottling, moist	SM		SL MOIST	50% rec
30				Sandy Clay ~25% Sand, brown 7.5YR 5/4, moist	CL			
				Clayey Sand ~45% clay, somewhat plastic 2.5YR 7/4 pale yellow, moist	SC		MOIST	100% rec Lot of drilling damage to sample
35				2 to 4 inch interbeds of Fine sloping Sand, moist				
								100% rec
40				▽				water encountered @ approx. 40'
				Clayey Sandy Gravel, F-C, angular to subangular, wet, pale yellow 2.5YR 7/3	GC		WET	50% rec.
45				Limestone - refusal	LS		DRY	
50								

4101034

BORING LOG

Borehole ID: WETA531
Sheet 1 of 2

			Location: WETA531	
Project Name: NASFW Background Study	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GeoProjects	Driller: Jose Landeros	Ground Elevation	Total Drilled Depth: 34'	
Drilling Equipment: CME 75 / Drilling Method: HSA / Borehole Diameter: 8"		Date/Time Drilling Started: 11/20/96 0858	Date/Time Total Depth Reached: 11/20/96 1021	
Type of Sampling Device: 5' Split barrel 2.5" ID		Water Level (bgs) First: 29' bgs	Final: 26.24' bbc	
Sample Hammer Type: NA Driving Wt. Drop		Hydrogeologist: M Johnson	Checked by/Date	

Location Description (include sketch in field logbook): SOUTH OF 12th Tee Box

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Sandy Clay, Plastic w/ root hairs, dark brown 7.5YR 3/2	CH			0-6 Feet was bored using a hand auger to clear utilities.
				— ?— — ?—				
5				Sandy Clay, Plastic, brown 7.5YR 5/6 Slightly moist. Tr. Subrounded limestone gravel (Fine to med). Stiff	CH		Moist	
10				Sandy Clayey Silt, Slightly plastic w/ Tr Subang to subround F-m gravel (Lm) brownish yellow 10YR 6/6. Soft.	ML		Moist	
15				Silty Sand F-m brownish yellow 10YR 6/6. Friable → weathered Limestone Cobble - light gray 10YR 7/2	SM		Sl. moist	Cobble prevents recovery to 19'
20				SAME - gravel size and abundance increasing ↓				Another Cobble prevents good recovery
25								

4101035

BORING LOG

Borehole ID: WETAS31
Sheet 2 of 2

Project Name NASFW Background Study	Project Number 05G47900	LTCCODE (IRPIMS)	Location / Site ID	LPRCODE (IRPIMS)
Drilling Company GeoProjects	Driller Jose Landeros	Ground Elevation	Total Drilled Depth 34'	
Drilling Equipment CME 75 / Drilling Method HSA / Borehole Diameter		Date/Time Drilling Started 11/20/96	Date/Time Total Depth Reached 11/20/96 10:21	
Type of Sampling Device 5' long 2.5 ID Split Sampler		Water Level (bgs) First ~29	Final ~26.5	
Sample Hammer Type NA / Driving Wt. / Drop		Hydrogeologist M Johnson	Checked by/Date	

Location Description (include sketch in field logbook)
South of Rt Tree Box

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				— ? — ? — ? — ? —				
				Sandy Clayey gravel F-C subang. (Limestone clasts) Very moist to wet noted shells. Interbedded w/ ~4"-6" lenses of clayey course poorly graded sand - light brown 7.5YR 6/4	GW GC			▽ Encountered @ ~29'
30				SAME gravel size increasing. Cobbles broken in sampler. 1/2" size shells				
35				Refusal - probably on Goodland 34'				Rig chatter
								After 3¼" ID Augers pulled the borehole caved to 28'. Hole will be reamed to 34' with 6¼" Augers to complete well.
40								
45								

4101036

BORING LOG

Borehole ID: ~~BWETA534~~ WWETA534
Sheet 1 of 2

			Location WWETA534 ~~BWETA534~~	
Project Name: NASFW Background	Project Number: 06047900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GeoProjects	Driller: Jose Landaos	Ground Elevation	Total Drilled Depth: 40'	
Drilling Equipment: CME 75 / Drilling Method: HSA / Borehole Diameter: 8"		Date/Time Drilling Started: 12/10/95 1027	Date/Time Total Depth Reached: 12/10/96 1117	
Type of Sampling Device: 5'L x 2.5ID SPLIT BARREL		Water Level (bgs): First 37°	Final 32°	
Sample Hammer: Type — Driving Wt. — Drop —		Hydrogeologist: M. JOHNSON	Checked by/Date	

Location Description (include sketch in field logbook): South of Wheary Housing School, ~~300~~ 350 SW of MTAC001

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Sandy Clay w/ root hairs and tree roots to 1" dia. 7.5YR 4/1 dark grey, Plastic	CL			50% rec. 0ppm
				F-c Sandy Clay, Plastic w/ root hairs 5YR 4/4 reddish Brown, Stiff.	CL		Moist	
5				F-c Sandy Clay w/ Tr. Gravel (fine) subrounded, Limestone clasts. Plastic Stiff. 7.5YR 5/4 brown.	CL			100% rec. 0ppm
10				SAME, Gravel decreasing, gradation finer ↓				100% rec. 0ppm
15				Clayey Sand w/ Tr fine subrounded gravel. Slightly Plastic, friable. 10YR 7/4 Very pale brown.	SC		Slightly Moist	50% rec 0ppm
20				Gravel size increasing, Shells ↓				
25				Fine Clayey Sand w 40% clay, Plastic 10YR 7/4 very pale brown	SC			

4101037

BORING LOG

Borehole ID: _____
Sheet 2 of 2

Location WWETA534
~~BRETA534~~

Project Name	Project Number	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
MASFW Background	05GH7900			

Drilling Company	Driller	Ground Elevation	Total Drilled Depth
GeoProbe	Jose Lanteros		40 ft.

Drilling Equipment	Drilling Method	Borehole Diameter	Date/Time Drilling Started	Date/Time Total Depth Reached
CME 75	HSA	8"	~~12/10/96~~ 12/10/96 1027	12/10/96 1117

Type of Sampling Device	Water Level (bgs)	
5' L x 2.5" Dia Split Spoon	First 37'	Final 32'

Sample Hammer	Hydrogeologist	Checked by/Date
Type — Driving Wt. — Drop —	M Johnson	

Location Description (include sketch in field logbook)
South Side of Wherry housing School ~ 350 SW of MTHC001

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Same - gravel absent. very friable.		SC	MOIST	100% rec 0ppm
30				Sandy Clay, Fine, Slightly Plastic, Friable 5YR 5/4 reddish brown.		CL		50% rec - large Limestone Rock in Shoe. 0ppm
				Gravelly Clayey Sand F-C, poorly graded Slight Plasticity, subrounded 5YR 5/4 reddish brown		SC		
35				Clayey gravelly Sand F-C poorly graded subrounded to subangular 5YR 5/4 reddish brown.		SC	V. MOIST	H_2O ~ ~~35~~ 37' 40% rec rig chatter.
40				Marl 7.5YR 7/1 light gray				on reaching total depth H_2O level was at 32'
				refusal on Limestone 7.5Y 7/1 Light gray				

4101038

BORING LOG

Borehole ID: ~~QJETH535~~ WJETA535
Sheet 1 of 2

Location ~~QJETA535~~ WJETA535

Project Name	Project Number	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
NASFW Background	05647700			

Drilling Company	Driller	Ground Elevation	Total Drilled Depth
GeoProjects	Joe Cardenas		43

Drilling Equipment	Drilling Method	Borehole Diameter	Date/Time Drilling Started	Date/Time Total Depth Reached
CME 75	HSA		12/11/96 10:37	12/11/96 11:38

Type of Sampling Device	Water Level (bgs)	
5'L x 2.5" ID Split Barrel	First 36'	Final

Sample Hammer	Hydrogeologist	Checked by/Date
Type N/A Driving Wt. Drop	M Johnson	

Location Description (include sketch in field logbook)
N Side of Wherry Housing School 300 ft east of WJETA530

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
				Sandy Clay; Sand ~ 30% subrounded w/root hairs, Plastic, 10YR 3/1 very dark grey	CL		V MOIST	100% 0ppm
5				Sandy Clay (Sand ~ 40% F-C subrounded w/Tr Fine subrounded Limestone gravels. ~~10YR~~ 5YR 4/6 yellowish red.	CL		MOIST	100% rec 0ppm
10				Silty Sand Fine poorly graded. Slightly dense, subrounded. 5YR 4/4 reddish brown	SM			60% rec 0ppm
15				Fine Sand, subrounded ~~10YR~~ 7.5YR 6/6 reddish yellow w occasional small cobbles of Limestone	SW			40% rec 0ppm
20		?		Fine subrounded Sand. 10YR 8/4 very ~~or~~ pale brown	SW			
25		?						

4101039

BORING LOG

Borehole ID: ~~B1EM535~~ MW
Sheet 2 of 2

			Location: MW1EM535	
Project Name: NASW Background	Project Number: 05647900	LTCCODE (IRPIMS)	Site ID	LPRCODE (IRPIMS)
Drilling Company: GeoProjects	Driller: Jose Landeros	Ground Elevation	Total Drilled Depth: 43'	
Drilling Equipment: CME 75 / Drilling Method: HSA / Borehole Diameter		Date/Time Drilling Started: 12/11/96 10:37	Date/Time Total Depth Reached: 12/11/96 11:38	
Type of Sampling Device: 5'L x 2.5" ID Split Barrel.		Water Level (bgs): First 36'	Final	
Sample Hammer: Type N/A / Driving Wt. / Drop		Hydrogeologist: M JOHNSON	Checked by/Date	
Location Description (include sketch in field logbook)				

Depth	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Lithology	Water Content	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
25				Gravelly Sand F-C well graded Subrounded (Gravel to 1" dia, Limestone Subrounded.) Dense 7.5YR 6/3 Light brown	SW		MOIST	20% rec 0 ppm
30				Gravelly Clayey Sand F-C subrounded Gravels to 2", Limestone Clasts 5YR 4/3 reddish brown	SC		VMOIST	50%
				Fine Subrounded Sand				
35				Gravelly Clayey Sand F-C subrounded 2" Gravels - Limestone clasts 5YR 4/3 reddish brown	SC			36' H_2O?
				Shale - 2.5YR 5/4 light olive brown			WET	Driller reports that Shale noted in shoe started @ ~38'
40				~~Shale - 2.5Y 5/4 light olive brown~~ 2.5Y 2.5/1 black				
				Limestone 10YR 7/1 Light Grey				
				EOB 43'				

4101010

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: M Johnson

DRILLING CONTRACTOR: GeoProjects

DRILLING TECHNIQUE: HSA

AUGER SIZE AND TYPE: 6 1/4 ID

BOREHOLE IDENTIFICATION: WJETA530

BOREHOLE DIAMETER: 9 5/8

WELL IDENTIFICATION: WJETA530

WELL CONSTRUCTION START DATE: 11/19/96

WELL CONSTRUCTION COMPLETE DATE: 11/20/96

SCREEN MATERIAL: PVC .020 slot

SCREEN DIAMETER: 2"

STRATUM-SCREENED INTERVAL (FT): 34.11 – 43.11

CASING MATERIAL: PVC

CASING DIAMETER: 2"

TYPE OF FILTER PACK: SAND

GRADIATION: 20/40

AMOUNT OF FILTER PACK USED: 6 100# Sacks

TYPE OF BENTONITE: 100% 1/4 Bem

AMOUNT BENTONITE USED: 1.5 SKS

TYPE OF CEMENT: TYPE I/II

AMOUNT CEMENT USED: 8 SKS

GROUT MATERIALS USED: 1/2 SK Hydrogel

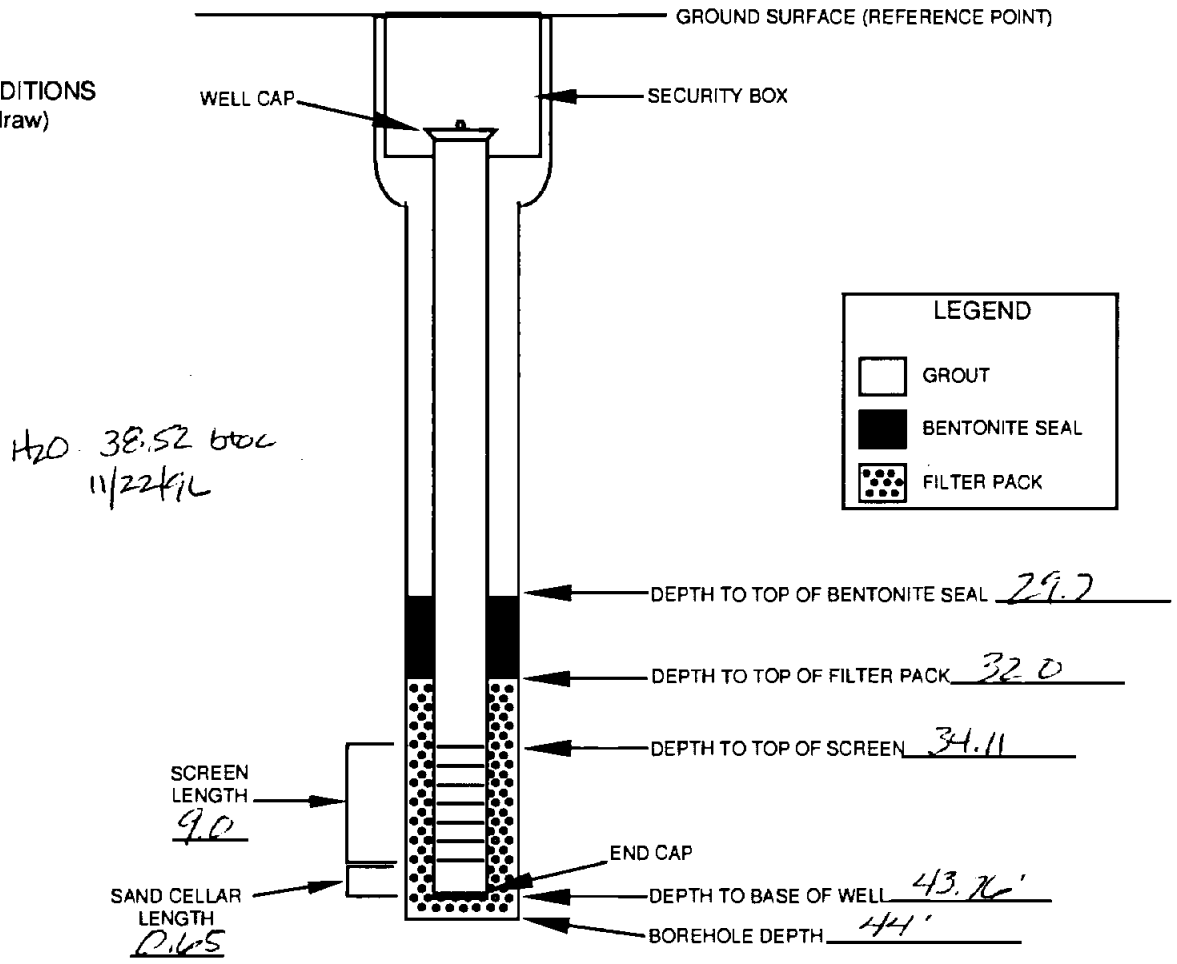
DIMENSIONS OF SECURITY BOX: 8" dia

TYPE OF WELL CAP: V-PLUG

TYPE OF END CAP: THREADED

COMMENTS: H_2O Level btoc 37.13 12/4/96.

SPECIAL CONDITIONS
(describe and draw)



NOT TO SCALE

INSTALLED BY Joe Lundberg GeoProjects Inc

INSTALLATION OBSERVED BY: M Johnson

DISCREPANCIES:

AFCEE FORM WAB.0

410104

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: M Johnson

DRILLING CONTRACTOR: GeoProjects, Inc

DRILLING TECHNIQUE: HSA

AUGER SIZE AND TYPE: 6 1/4" ID

BOREHOLE IDENTIFICATION: MWETA531

BOREHOLE DIAMETER: 9 5/8

WELL IDENTIFICATION: MWETA531

WELL CONSTRUCTION START DATE: 11/20/96

WELL CONSTRUCTION COMPLETE DATE: 11/20/96

SCREEN MATERIAL: PVC .020 Slot

SCREEN DIAMETER: 2"

STRATUM-SCREENED INTERVAL (FT): 24.35-33.35

CASING MATERIAL: PVC

CASING DIAMETER: 2"

TYPE OF FILTER PACK: SAND

GRADIATION: 20/40

AMOUNT OF FILTER PACK USED: 5 100# SKS

TYPE OF BENTONITE: 100% Wyo Bem

AMOUNT BENTONITE USED: 1.5 bags

TYPE OF CEMENT: TYPE I/II

AMOUNT CEMENT USED: 8 SKS

GROUT MATERIALS USED: 1/2 SK Hydrated

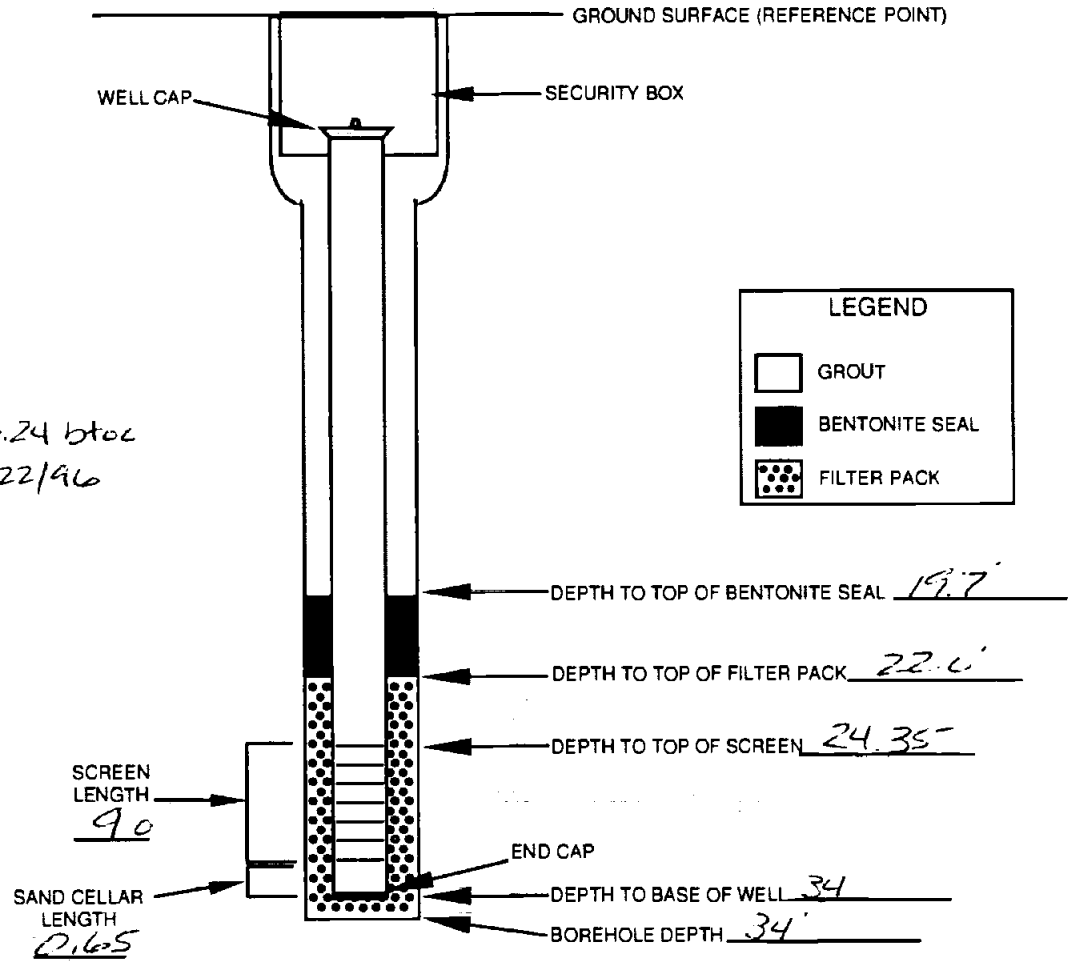
DIMENSIONS OF SECURITY BOX: 8" DIA

TYPE OF WELL CAP: V-PLUG

TYPE OF END CAP: THREADED

COMMENTS: H2O Level 22.99 btoc 12/5/96

SPECIAL CONDITIONS
(describe and draw)



NOT TO SCALE

INSTALLED BY: Jose Landeros GeoProjects

INSTALLATION OBSERVED BY: M Johnson

DISCREPANCIES:

AFCEE FORM WAB.0

4101042

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: M. Johnson

DRILLING CONTRACTOR: Geo Projects

DRILLING TECHNIQUE: HSA

AUGER SIZE AND TYPE: 6¼" ID

BOREHOLE IDENTIFICATION: MW-EW-1534

BOREHOLE DIAMETER: 9 5/8"

WELL IDENTIFICATION: ~~[illegible]~~ SAME

WELL CONSTRUCTION START DATE: 12/10/96

WELL CONSTRUCTION COMPLETE DATE: 12/11/96

SCREEN MATERIAL: PVC .020 Slot

SCREEN DIAMETER: 2"

STRATUM-SCREENED INTERVAL (FT): 25.14 - 39.24

CASING MATERIAL: PVC

CASING DIAMETER: 2"

TYPE OF FILTER PACK: SAND

GRADIATION: 10/30

AMOUNT OF FILTER PACK USED: 9.5 100# SKS

TYPE OF BENTONITE: 100% 4x10 Ben

AMOUNT BENTONITE USED: 2 50# SKS

TYPE OF CEMENT: TYPE I/II

AMOUNT CEMENT USED: 9 SKS

GROUT MATERIALS USED: 1/2 SK AQUAGEL

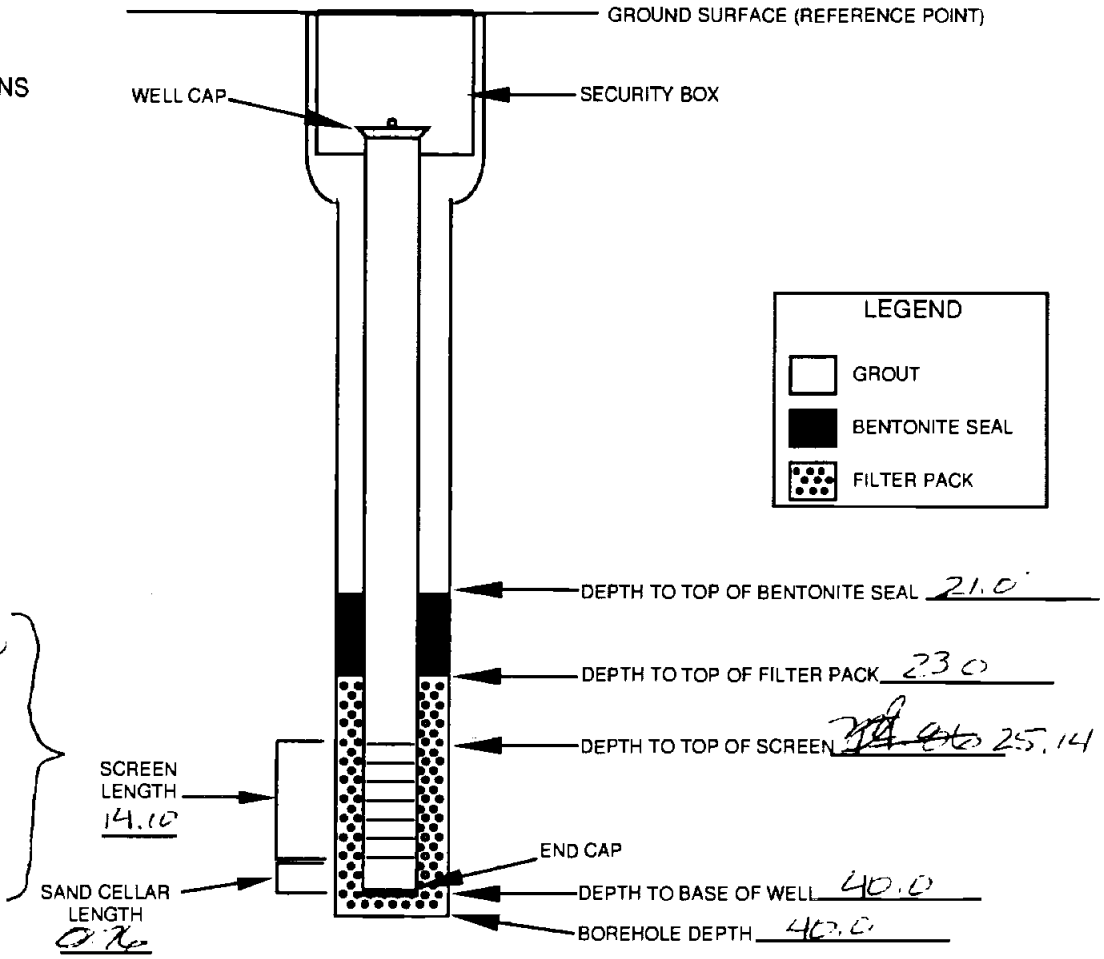
DIMENSIONS OF SECURITY BOX: 8" DIA

TYPE OF WELL CAP: J-PLUG

TYPE OF END CAP: THREADED

COMMENTS: H_2O BTOC: 31.15'
12/12/96 16.15

SPECIAL CONDITIONS
(describe and draw)



NOTE. AT SCREEN SECTION CONNECTION THERE IS A 0.75' BLANK SECTION FROM 29.49' TO 30.24'

NOT TO SCALE

INSTALLED BY: Jose Lunderos Geo Projects

INSTALLATION OBSERVED BY: M. Johnson

DISCREPANCIES:

AFCEE FORM WAB.0

1101043

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: W.P. JOHNSON

DRILLING CONTRACTOR: GEOPROBE

DRILLING TECHNIQUE: HSA

AUGER SIZE AND TYPE: 6 1/4" ID

BOREHOLE IDENTIFICATION: MW-EH535

BOREHOLE DIAMETER: 9 5/8"

WELL IDENTIFICATION: MW-EH535

WELL CONSTRUCTION START DATE: 12/11/96

WELL CONSTRUCTION COMPLETE DATE:

SCREEN MATERIAL: PVC 020 Slot

SCREEN DIAMETER: 2"

STRATUM-SCREENED INTERVAL (FT): 33.35 - 42.35

CASING MATERIAL: PVC

CASING DIAMETER: 2"

TYPE OF FILTER PACK: SAND

GRADIATION: 16/30

AMOUNT OF FILTER PACK USED: 7 SKS 100#

TYPE OF BENTONITE: 100% WYO BEN

AMOUNT BENTONITE USED: 11 SKS

TYPE OF CEMENT: TYPE I/II

AMOUNT CEMENT USED: 7 SKS

GROUT MATERIALS USED: 1 bag AQUAGEL

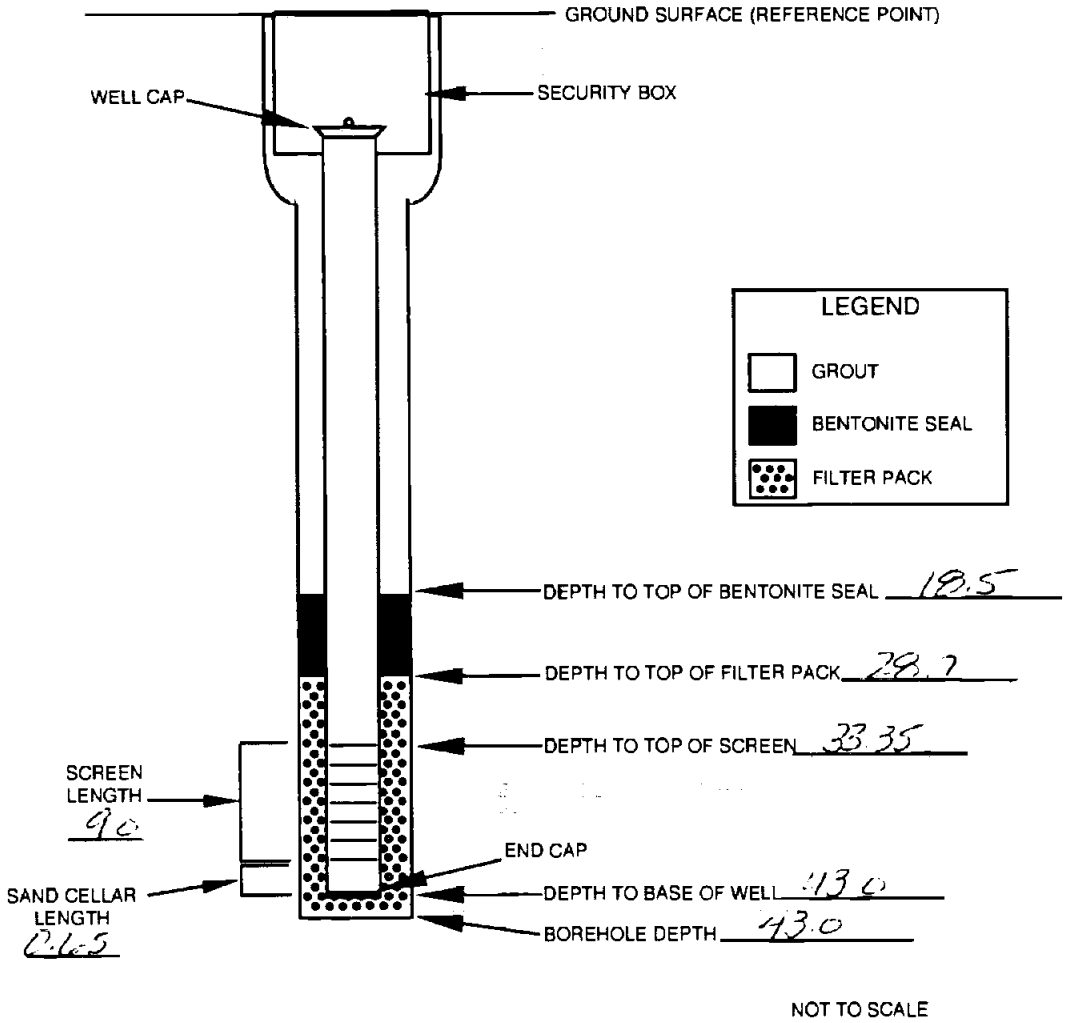
DIMENSIONS OF SECURITY BOX: 8" DIA

TYPE OF WELL CAP: J-PLUG

TYPE OF END CAP: THREADED

COMMENTS: H_2O Level 34.36' BTOC 12/13/96.

SPECIAL CONDITIONS
(describe and draw)



INSTALLED BY: _____ INSTALLATION OBSERVED BY: _____

DISCREPANCIES: _____

AFCEE FORM WAB.0

4101041

WELL DEVELOPMENT RECORD

WELL/PIEZOMETER ID W JETA530
SHEET 1 of 2

PROJECT NAME: BACKGROUND STUDY PROJECT NO.: 05647900 DATE: 11/22/96

LOCATION: CARSWELL SCHOOL DATE INSTALLED: 11/19/96

TOTAL DEPTH (~~FTOC~~ BLS) 44.5 CASING DIAMETER 2"

METHODS OF DEVELOPMENT

☐ Swabbing ☒ Bailing ☐ Pumping ☐ Describe _____

Equipment decomtaminated prior to development ☐ Yes ☐ NO

Describe _____

EQUIPMENT NUMBERS:

pH Meter _____ EC Meter _____ Turbidity Meter _____ Thermometer _____

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION: 43.63 (10:24, uncorrected Slope measurement)

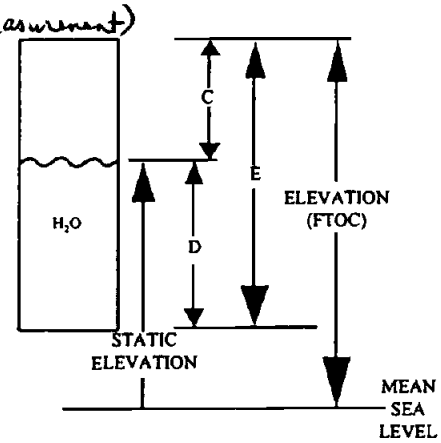
Measured Well Depth (B) ~~38.52~~ ft.

Measured Water Level Depth (C) 38.52 ft. (10:22)

Length of Static Water Colume (D) _____ (B) - _____ (C) = 5.11 ft.

Casing Water Volume (E) = _____ (A) x _____ (D) = 0.9 gal

Total Purge Volume = _____ (gal)



Purge Volume w/ Borehole dia = 7.0 gal.

Date	Time	Water Level (FTOC)	Volume Removed (gal)	pH	EC	Temperature F or (C)	Turbidity/ Sand (ppm)	Comments
11/22	1054	38.52	4	6.97	0.800	19.2	>999	Sand in dew. water, tan color
11/22	1125	38.52	4	6.98	0.797	19.6	>999	" " " " "
		will continue development when pump						
		is available.						

AFCEE FORM WD.0

4101045

WELL DEVELOPMENT RECORD

WELL/PIEZOMETER ID WSTA ~~030~~ 530
SHEET 2 of 2

PROJECT NAME: _____ PROJECT NO.: 05647900 DATE: 12/4/96

LOCATION: NASFW - Old Carswell school DATE INSTALLED: 11/19/96

TOTAL DEPTH (FTOC) _____ CASING DIAMETER 2"

METHODS OF DEVELOPMENT

☐ Swabbing ☐ Bailing ☒ Pumping ☐ Describe Grundfos RediFlo2

Equipment decomtaminated prior to development ☒ Yes ☐ NO

Describe _____

EQUIPMENT NUMBERS:

pH Meter _____ EC Meter _____ Turbidity Meter _____ Thermometer _____

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

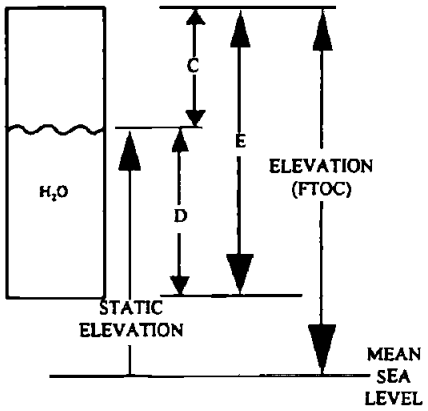
Measured Well Depth (B) 43.4 ft.

Measured Water Level Depth (C) 37.13 ft. 1415

Length of Static Water Colume (D) _____ (B) - _____ (C) = _____ ft.

Casing Water Volume (E) + _____ (A) x _____ (D) = _____ gal

Total Purge Volume = _____ (gal)



Start pumping 1430 - 3.4 gal/min approx .5' drawdown

Date	Time	Water Level (FTOC)	Volume Removed (gal)	pH	EC	Temperature F or (C)	Turbidity/ Sand (ppm)	Comments
12/4	1445	37.77	51					Surge 10-3ft strokes every 4-5 min.
12/4	1500	37.70	51					Surging
12/4	1515	37.72	51					Surging
12/4	1527	37.95	41					Change to 4gal/min
12/4	1654	38.12	554 total	6.72	0.94	19.4	0	ambient temp 10°C
12/4	1704	38.12	594	6.67	0.94	19.6	0	
12/4	1715	38.13	638	6.63	0.93	19.7	0	
12/4	1726	38.14	682	6.63	0.94	19.7	0	

AFCEE FORM WD.0

4101046

WELL DEVELOPMENT RECORD

WELL/PIEZOMETER ID: WWSTA531
SHEET 1 of 2

PROJECT NAME: NASFW Background PROJECT NO.: 0564700 DATE: 11/22/96

LOCATION: WAREHOUSE Residential DATE INSTALLED: 11/20/96

TOTAL DEPTH (FTOC) _____ CASING DIAMETER 2"

METHODS OF DEVELOPMENT

☐ Swabbing ☒ Bailing ☐ Pumping ☐ Describe _____

Equipment decomtaminated prior to development ☒ Yes ☐ NO

Describe Liquinox wash, pot rinse, Type I rinse, Methanol/Hexane rinse

EQUIPMENT NUMBERS:

pH Meter _____ EC Meter _____ Turbidity Meter _____ Thermometer _____

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

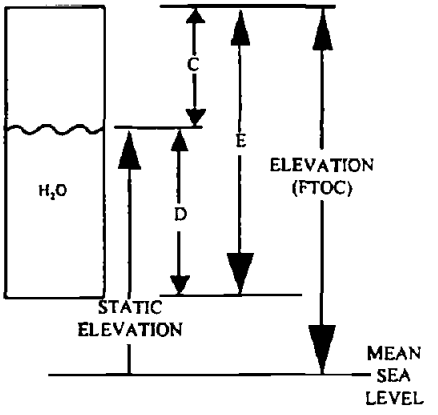
Measured Well Depth (B) 33.15 ft.

Measured Water Level Depth (C) 26.24 ft.

Length of Static Water Colume (D) _____ (B) - _____ (C) = 6.9 ft.

Casing Water Volume (E) = _____ (A) x _____ (D) = 1.1 gal

Total Purge Volume = 9.2 (gal)



Purge Volume with borehole dia: 9.2 gal

Date	Time	Water Level (FTOC)	Volume Removed (gal)	pH	EC	Temperature F or C	NTU Turbidity/ Sand (ppm)	Comments
11/22	1238	26.29	9.2	—	—	—	>999	
		Will continue development when pump is						
		available.						

AFCEE FORM WD.0

4101047

WELL DEVELOPMENT RECORD

WELL/PIEZOMETER ID WJEPA ~~031~~ 531
SHEET 2 of 2

PROJECT NAME: _____ PROJECT NO.: 05647900 DATE: 12/5/96

LOCATION: NW Residential DATE INSTALLED: 11/20/96

TOTAL DEPTH (FTOC) 33.15 CASING DIAMETER 2"

METHODS OF DEVELOPMENT

☐ Swabbing ☐ Bailing ☒ Pumping ☐ Describe Grundfos RediFlo 2

Equipment decomtaminated prior to development ☐ Yes ☐ NO

Describe _____

EQUIPMENT NUMBERS:

pH Meter _____ EC Meter _____ Turbidity Meter _____ Thermometer _____

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

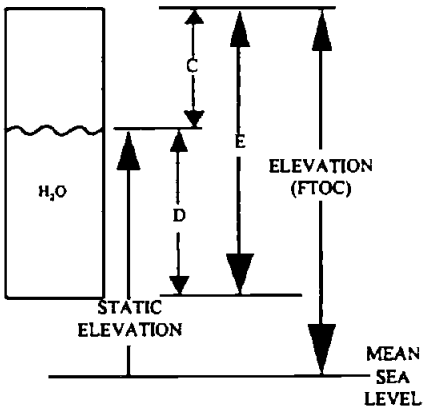
Measured Well Depth (B) 33.15 ft.

Measured Water Level Depth (C) 22.99 ft.

Length of Static Water Colume (D) _____ (B) - _____ (C) = _____ ft.

Casing Water Volume (E) + _____ (A) x _____ (D) = _____ gal

Total Purge Volume = _____ (gal)



12/6 ambient ≈ 20°C

	Date	Time	Water Level (FTOC)	Volume Removed ~~total~~ (gal)	pH	EC	Temperature F or (C)	Turbidity/ Sand (ppm)	Comments
	12/5	1053	22.99	0	–	–	–	+999	W.L. = 23.55 @ 2.5 gpm
Stop	12/5	1215	22.83	245	–	–	–	Clear in < 5 min.	Pump plugged
Start	12/6	0923	22.83	245	–	–	–	+999	W.L. = 23.41 @ 3.75 gpm
	12/6	1003	23.56	395	–	–	–	+999	increase to 4.4 gpm (23.56')
	12/6	1023	23.27	483	–	–	–	+999	decrease to 2.8 gpm
	12/6	1031	23.27	~~0548~~ 496	6.84	0.92	19.9	118	
	12/6	1041	23.27	524	6.83	0.92	19.8	43	
	12/6	1051	23.27	552	6.83	0.92	19.9	37	
	12/6	1103	23.27	580	6.82	0.92	19.9	38	
	12/6	1111	23.27	602	6.82	0.92	20.0	29	

12/5 30 min @ 2.5 gpm
16 min @ 2.5 gpm
29 min @ 4.4 gpm

AFCEE FORM WD.0

12/6 40 min @ 3.75 gpm
20 min @ 4.4 gpm
46 min @ 2.8 gpm

4101048

WELL DEVELOPMENT RECORD

WELL/PIEZOMETER ID MW07534
SHEET 1 of 1

PROJECT NAME: NASFW PROJECT NO.: 05647900 DATE: 12/12/96

LOCATION: 350' SW of MW0001 DATE INSTALLED: 12/10/96

TOTAL DEPTH (FTOC) 40 CASING DIAMETER 2 INCH

METHODS OF DEVELOPMENT

☐ Swabbing ☐ Bailing ☒ Pumping ☒ Describe Surging

Equipment decomtaminated prior to development ☒ Yes ☐ NO

Describe

EQUIPMENT NUMBERS: HORIBA

pH Meter _____ EC Meter _____ Turbidity Meter _____ Thermometer _____

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

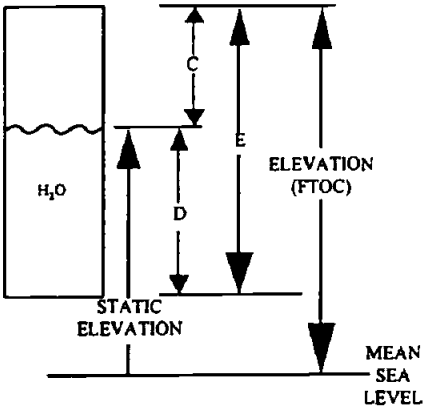
Measured Well Depth (B) 39.50 ft.

Measured Water Level Depth (C) 31.15 ft.

Length of Static Water Colume (D) 39.50 (B) - 31.15 (C) = ~~31.15~~ 8.35 ft

Casing Water Volume (E) = 0.16 (A) x 8.35 (D) = 1.34 gal

Total Purge Volume = _____ (gal)



Date	Time	Water Level (FTOC)	Volume Removed (gal)	pH	EC	Temperature F or C	Turbidity/ Sand (ppm)	Comments
12/12	1623	32.4	185	6.73	0.608	20.6	71	~~18~~ DO: 5.96
12/12	1641		209	6.74	0.777	20.6	75	DO: 7.43
		Stop development and parameter readings because						
		of pump difficulties. Total gallons pumped						
			250					
		Last Imhoff Cone reading < ~~0.01~~ 0.1 ml/L						

AFCEE FORM WD.0

4101043

WELL DEVELOPMENT RECORD

WELL/PIEZOMETER ID WWETAS35
SHEET 1 of 1

PROJECT NAME: NASFW PROJECT NO.: 05642900 DATE: 12/13/96

LOCATION: Service yard DATE INSTALLED: 12/11/96

TOTAL DEPTH (FTOC) 42.57 CASING DIAMETER 2 INCH

METHODS OF DEVELOPMENT

☐ Swabbing ☒ Bailing ☒ Pumping ☒ Describe Surging.

Equipment decomtaminated prior to development ☐ Yes ☐ NO

Describe

EQUIPMENT NUMBERS:

pH Meter _____ EC Meter _____ Turbidity Meter _____ Thermometer _____

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

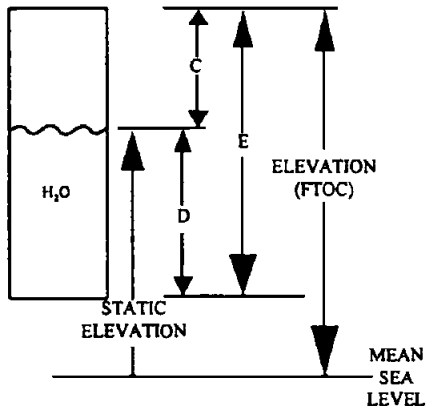
Measured Well Depth (B) 42.57 ft.

Measured Water Level Depth (C) 34.36 ft.

Length of Static Water Colume (D) _____ - _____ = _____ ft.
(B) (C)

Casing Water Volume (E) + _____ x _____ = _____ gal
(A) (D)

Total Purge Volume = 1.5 (gal)



Date	Time	Water Level (FTOC)	Volume Removed (gal)	pH	EC	Temperature F or C	Turbidity/ Sand (ppm)	Comments
12/13	1742	36.34	126.5	6.28	0.761	20.5	372	DO= 3.52
12/13	1825		203	6.20	0.765	20.1	1064	DO= 3.91
12/13	1842		241	6.66	0.762	20.2	205	DO= 3.79
12/13	1852		262	6.75	0.762	20.6	764	DO= 3.57
12/13	1857		273	6.74	0.759	20.4	63	DO= 3.68
12/13	1908	~39.5	295	6.76	0.759	20.3	9	DO= 3.89

AFCEE FORM WD.0

4101050

November 1996 GROUNDWATER SAMPLING DATA SHEET Round 1

Carswell Background Study - 05G47900

Well Number: HM-120

Well Type (circle one) Flushmount Stickup

Well Material (circle one) PVC St. Steel

Well Integrity: Good, bottom firm

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

Weather: 65°F, Clear, 0-10 N

Sampled By: Schultz Nealy

WELL PURGING

PURGE DATE: 12/8/96

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE VOLUME:

Casing Diameter (inches): 4" 4.65'

Water Depth (ft. BTOC): ~~4.68~~ Keck Slope Other _____ Time: 17:00

Casing Depth (ft. BTOC): 17.41 Keck Slope Other _____

Casing Depth (corrected): 17.54 (+.09 feet for Keck)

One Purge Volume: 8.4 Gallons

PURGE TIME:

Start 1707

Stop _____

Total elapsed _____ minutes

PURGE METHOD:

___ 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

X Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

None Detected Slope

DNAPL _____

LNAPL _____

Depth to Top (ft.) _____

Depth to Bottom (ft.) _____

Thickness (ft.) _____

FIELD PARAMETER MEASUREMENT

Time of last calibration: _____

Time of Measurement	Vol.** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1710	8.4	19.4	6.59	1.60	13	0.64	Lt. Brown	None	Started to dry
1714	8.4	19.6	6.61	1.69	85	2.25	Lt Brown	None	D.O. agitated
1717	8.4	19.7	6.82	1.73	370	<5.5	Lt. Brown	None	D.O. agitated

25.2 Total Purge Volume **Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? Y N

Sample Date: 12/8/96

Start: _____

Sample Time: 1745 Finish: _____

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: Approx. sample turbidity

Recorded by: Schultz

JACOBS ENGINEERING GROUP INC.

November 1996 4101051 GROUNDWATER SAMPLING DATA SHEET Round 1

Carswell Background Study - 05G47900

Well Number: HM-127

Well Type (circle one) (Flushmount) Stickup

Well Material (circle one): (PVC) St. Steel

Well Integrity: Good

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

Weather: Clear, 70°F

Sampled By: Neely Johnson

WELL PURGING

PURGE DATE: 12/13/96

PURGE VOLUME:

Casing Diameter (inches): 4

Water Depth (ft. BTOC): 25.36 Keck (Slope) Other _____ Time: _____

Casing Depth (ft. BTOC): 37.7 Keck (Slope) Other _____

Casing Depth (corrected): 37.83 (+.09 feet for Keck)

One Purge Volume: 8 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 1215

Stop 1227

Total elapsed 12 minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

X Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES:

(Interface Probe Only)

None Detected (slope)

DNAPL _____

LNAPL _____

Depth to Top (ft.) _____

Depth to Bottom (ft.) _____

Thickness (ft.) _____

FIELD PARAMETER MEASUREMENT

Time of last calibration: _____

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1220	8	19.0	6.87	0.729	76	4.54	clear	none	
1222	8	19.1	6.86	0.715	79	4.15	"	"	
1225	8	19.1	6.84	0.720	110	4.27	"	"	
	24	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/13/96

Sample Time: 12:20 Start: _____ Finish: _____

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A160701	4x40ml	SW8240	HCL	HM127-01	M	
" 02	4x1L Amber	SW8270	4°C	HM127-01	M	
" 03	2x1L Plastic	SW6010 SW7470	HNO_3	HM127-01	M	Low turbidity
04	1x1L plastic	" "	HNO_3	HM127-01M	E MS	X DUP turbidity = 2 NTU

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate	CR-A160705-07	CR-A1607
Equipment Blank		
Trip Blank		

Additional comments: Collected MS/MSD and duplicate sample.

Recorded by: Neely Johnson

JACOBS ENGINEERING GROUP INC.

November 1996 GROUNDWATER SAMPLING DATA SHEET 1101052 Round 1

Carswell Background Study - 05G47900

Well Number: LF03-3D

Well Type (circle one) Flushmount (Stickup)

Well Material (circle one): (PVC) St. Steel

Well Integrity: Good

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

Weather: 60°F, Clear, wind 5-10 N

Sampled By: Schultz Neely

WELL PURGING

PURGE DATE: 12/12/96

PURGE VOLUME:

Casing Diameter (inches): 2"

Water Depth (ft. BTOC): 12.67 Keck (Slope) Other Time: 1010

Casing Depth (ft. BTOC): 17.85 Keck Slope Other

Casing Depth (corrected): 17.98 (+.09 feet for Keck)

One Purge Volume: 0.9 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 1133

Stop 1140

Total elapsed 7 minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type:

___ Grundfos

___ Dedicated Triloc

___ Other:

IMMISCIBLE PHASES:

(Interface Probe Only)

None Detected Slope

DNAPL

LNAPL

Depth to Top (ft.)

Depth to Bottom (ft.)

Thickness (ft.)

FIELD PARAMETER MEASUREMENT

Time of last calibration: 1020

Time of Measurement	Vol.** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1135	1.0	19.8	6.82	1.11	+999	3.08	lt. brown	none	
1137	1.0	19.8	6.82	1.11	—	3.76	"	"	
1139	1.0	19.8	6.83	1.10	+999	3.65	"	"	
	3.0	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/12/96

Start:

Sample Time: Finish:

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-AIE0801	2 x 40 ml	SW8240	HCL	LF03D-01		
" 02	2 x 1L Amber	SW8270	4°C	LF03D-01		
" 03	1 x 1L Plastic	SW6010 & SW7470	HNO3	LF03D-01		

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments:

Recorded by: Schultz Neely

JACOBS ENGINEERING GROUP INC.

4101053

November 1996 — GROUNDWATER SAMPLING DATA SHEET — Round 1

Carswell Background Study - 05G47900

Well Number: LF04-4A

Well Type (circle one) Flushmount (Stickup)

Well Material (circle one): (PVC) St. Steel

Well Integrity: Good, carswell lock

HNu Background: NA

HNu Wellhead: NA

HNu Breathing Zone: NA

Weather: 70°F, Clear, 0-8 NE

Sampled By: Schulty Neely

WELL PURGING

PURGE DATE: 12/7/96

PURGE VOLUME:

Casing Diameter (inches): 2"

Water Depth (ft. BTOC): 11.95' Keck (Slope) Other _____ Time: 13:45

Casing Depth (ft. BTOC): ~25.0' Keck (Slope) Other _____

Casing Depth (corrected): _____ (+.09 feet for Keck)

One Purge Volume: 2.2 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 1402

Stop _____

Total elapsed _____ minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

(Slope) None Detected X (NA)

DNAPL _____

LNAPL _____

Depth to Top (ft.) _____

Depth to Bottom (ft.) _____

Thickness (ft.) _____

FIELD PARAMETER MEASUREMENT

Time of last calibration: 13:55

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1409	2.2	20.3	6.91	0.731	+999	2.44	Brown	none	
1416	4.4	20.3	6.94	0.721	+999	3.35	Brown	NONE	Slight Agitation of sam
1422	6.6	20.4	6.95	0.722	+999	3.68	Brown	NONE	

6.6 Total Purge Volume **Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/7/96

Sample Time: 1420 Start: 1428 Finish: 1435

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: Micropurge info in logbook

Recorded by: Dan Schulty

JACOBS ENGINEERING GROUP INC.

DEC. ~~November~~ 1996

GROUNDWATER SAMPLING DATA SHEET

4101051

Round 1

Carswell Background Study - 05G47900

Well Number: LF04-4B

Well Type (circle one) Flushmount (Stickup)

Well Material (circle one): (PVC) St. Steel

Well Integrity: Good, Carswell Lock

HNu Background: NA

HNu Wellhead: NA

HNu Breathing Zone: NA

Weather: 55°F, Clear, 0-10 NE

Sampled By: Neely Shultz

WELL PURGING

PURGE DATE: 12/7/96

PURGE VOLUME:

Casing Diameter (inches): 2"

Water Depth (ft. BTOC): 17.30 Keck (Slope) Other _____ Time: 1645

Casing Depth (ft. BTOC): 25.35 Keck (Slope) Other _____

Casing Depth (corrected): 25.48 (+.09 feet for Keck)

One Purge Volume: 1.3 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 1655

Stop 1711

Total elapsed _____ minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

(Slope) None Detected X (NA)

DNAPL _____

LNAPL _____

Depth to Top (ft.) _____

Depth to Bottom (ft.) _____

Thickness (ft.) _____

FIELD PARAMETER MEASUREMENT

Time of last calibration: _____

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1703	3.0	17.9	6.95	0.541	+999	4.08	Brown	None	
1707	1.5	18.0	6.96	0.539	966	3.85	Brown	None	
1711	1.5	17.9	6.97	0.539	+999	4.08	Lt. brown	None	
	6.0	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/7/96

Sample Time: 1725 Start: 1720 Finish: 1725

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A16100-1	2 x 40 ml	SW8240	HCl	LF044B-01		
CR-A16100-2	2 x 1-L glass	SW8270	none	LF044B-01		
-03	1 x 1-L plastic	SW6020/SW7470	HNO_3	LF044B-01		
-04	1 x 1-L plastic	SW6010/SW7470	HNO_3	LF044B-01M		Micropurged

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: See log book for micropurge details

Recorded by: Dan Schulz Bryan Neely

JACOBS ENGINEERING GROUP INC.

December ~~November~~ 1996 4101055

GROUNDWATER SAMPLING DATA SHEET

Round 1

Carswell Background Study - 05G47900

Well Number: MWMTAC-001

Well Type (circle one) (Flushmount) Stickup

Well Material (circle one): (PVC) St. Steel

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

Well Integrity: Good, no lock on expansion cap

Weather: Clear, light wind, 50°

Sampled By: Neely Schultz

WELL PURGING

PURGE DATE: 12/12/96

PURGE VOLUME:

Casing Diameter (inches): 2

Water Depth (ft. BTOC): 33.97 Keck (Slope) Other _____ Time: 17:04

Casing Depth (ft. BTOC): 44.50 Keck (Slope) Other _____

Casing Depth (corrected): 44.63 (+.09 feet for Keck)

One Purge Volume: 1.8 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 17:05

Stop _____

Total elapsed _____ minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

None Detected ✓ slope

DNAPL _____

LNAPL _____

Depth to Top (ft.) _____

Depth to Bottom (ft.) _____

Thickness (ft.) _____

FIELD PARAMETER MEASUREMENT

Time of last calibration: _____

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1715	1.8	19.0	6.70	1.05	+999	5.52	lt. brown	NONE	
1720	1.8	19.2	6.67	1.04	+999	5.59	"	"	
1725	1.8	19.2	6.67	1.04	+999	5.80			
	5.4	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/12/96

Sample Time: 1715 Start: 1710 Finish: 1725

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A161101	2 x 40 ml	SW8240	HCL	MWMTAC-001		
" 02	2 x 1L Amber	SW8270	4°C	"		
" 03	1 x 1L Plastic	SW6010 & SW7470	HNO3	"		

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: _____

Recorded by: Neely Schultz

JACOBS ENGINEERING GROUP INC.

4101056

November 1996 — GROUNDWATER SAMPLING DATA SHEET — Round 1

Carswell Background Study - 05G47900

Well Number: WJETA530

Well Type (circle one): Flushmount Stickup

Well Material (circle one): PVC St. Steel

Well Integrity: Excellent, by school playground

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

Weather: 60°F, light fog, 0-5 SW

Sampled By: Neely Schulz Johnson

WELL PURGING

PURGE DATE: 12/14/96

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE VOLUME:

Casing Diameter (inches): 2"

Water Depth (ft. BTOC): 35.74 Keck (Slope) Other _____ Time: 0910

Casing Depth (ft. BTOC): 43.63 Keck ~~Slope~~ Other prev. measurement

Casing Depth (corrected): 43.72 (+.09 feet for Keck)

One Purge Volume: 1.3 Gallons

PURGE TIME:

Start 1039

Stop 1100

Total elapsed _____ minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

None Detected Slope

DNAPL

LNAPL

Depth to Top (ft.)

Depth to Bottom (ft.)

Thickness (ft.)

FIELD PARAMETER MEASUREMENT

Time of last calibration: 0950

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1052	1.9	19.6	6.84	0.94	+999	5.74	Lt. brown	none	
1055	1.3	19.7	6.80	0.94	—	5.77	"	"	Turb. not operable
1100	1.3	19.7	6.77	0.95	—	5.84	"	"	"

45 Total Purge Volume

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/14/96

Sample Time: 10:50 Start: 11:00 Finish: 11:17

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A160001	4 x 40 ml	SW8240	HCl			
CR-A160002	4 x 1 L	SW8270	none			
CR-A160003	1 x 1 L plastic	SW6010/7470	HNO_3			turbidity +999 NTU
CR-A160004	2 x 1 L plastic	" "	HNO_3			turbidity = ~~2~~ 0

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: Samples effervesce

Recorded by: Schulz Neely

JACOBS ENGINEERING GROUP INC.

December ~~November 1996~~ 4101057 GROUNDWATER SAMPLING DATA SHEET Round 1

Carswell Background Study - 05G47900

Well Number: WJETA531

Well Type (circle one) (Flushmount) Stickup

Well Material (circle one): (PVC) St. Steel

Well Integrity: Good

HNu Background: NA

HNu Wellhead: NA

HNu Breathing Zone: NA

Weather: Clear

Sampled By:

WELL PURGING

PURGE DATE: 12/8/96

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE VOLUME:

Casing Diameter (inches): 2

Water Depth (ft. BTOC): 22.86 Keck (Slope) Other Time: 1210

Casing Depth (ft. BTOC): 33.65 Keck (Slope) Other

Casing Depth (corrected): 33.78 (+.09 feet for Keck)

One Purge Volume: 1.8 Gallons

PURGE TIME:

Start 1210

Stop

Total elapsed minutes

PURGE METHOD:

x 1.88 - inch Teflon bailer

Bailer type:

Grundfos

Dedicated Triloc

Other:

IMMISCIBLE PHASES:

(Interface Probe Only)

None Detected NA (slope)

DNAPL

LNAPL

Depth to Top (ft.)

Depth to Bottom (ft.)

Thickness (ft.)

FIELD PARAMETER MEASUREMENT

Time of last calibration:

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1211	1.8	19.1	6.93	0.95	+999	5.67	Lt. brown	None	
1215	1.8	19.2	6.91	0.94	+999	5.73	"	"	
1221	1.8	19.2	6.90	0.94	+999	5.83	"	"	
	5.4	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

Dedicated Triloc pump

Other

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/8/96

Sample Time: 12:40 12:50 (dup) Start: 12:30 Finish: 12:55

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A160101	2 x 40ml	SW8240	HCL	WJETA531-01		
CR-A160102	2 x 1L Amber	SW8270	4°C	WJETA531-01		
" 03	1 x 1L Plastic	SW6010/SW7470	HNO_3	WJETA531-01		
04	1 x 1L Plastic	SW6010/SW7470	HNO_3	WJETA531-01M		Micropurge w/ Peristaltic Pump

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate	WJETA531-01D	CR-A1601
Equipment Blank		
Trip Blank		

Additional comments:

Recorded by: Bryan Neely

JACOBS ENGINEERING GROUP INC.

November 1996 GROUNDWATER SAMPLING DATA SHEET 4101058 Round 1

Carswell Background Study - 05G47900

Well Number: WJETA534

Well Type (circle one) Flushmount Stickup

Well Material (circle one): PVC St. Steel

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

Well Integrity: Good, corner of school yard and residential

Weather: 70°F, partly cloudy, 15-20 S

Sampled By: Schultz Neely Johnson

WELL PURGING

PURGE DATE: 12/14/96

PURGE VOLUME:

Casing Diameter (inches): 2"

Water Depth (ft. BTOC): 30.99 Keck (Slope) Other _____ Time: 1340

Casing Depth (ft. BTOC): 39.6 Keck (Slope) Other _____

Casing Depth (corrected): 39.73 (+.09 feet for Keck)

One Purge Volume: 1.4 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 1511

Stop 1523

Total elapsed 13 minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES:

(Interface Probe Only)

None Detected Slope

DNAPL

LNAPL

Depth to Top (ft.)

Depth to Bottom (ft.)

Thickness (ft.)

FIELD PARAMETER MEASUREMENT

Time of last calibration: 1420

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1514	1.8	20.0	6.73	0.961	+999	7.24	Brown	none	D.O. OK
1520	1.4	20.0	6.71	0.961	+999	7.41	Brown	none	D.O. OK
1523	1.4	20.0	6.71	0.961	+999	7.40	Brown	none	D.O. OK
	4.6	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/14/96

Sample Time: 15:25

Start:

Finish:

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A	2 x 40ml	SW8240	HCl	WJETA532-01		
CR-A	2 x 1-L amber	SW8270	none	"		
CR-A	2x500 ml plastic	SW6010 / SW7470	HNO_3	"		
CR-A	2x500 ml plastic	SW6010 TR / SW7470	HNO_3	WJETA532-01M		15:00

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: Probes rotated slightly until D.O. stabilized. No effervescence

Recorded by: Dan Schultz

JACOBS ENGINEERING GROUP INC.

4101059

November 1996 — GROUNDWATER SAMPLING DATA SHEET — Round 1

Carswell Background Study - 05G47900

Well Number: WETA535

Well Type (circle one): Flushmount Stickup

Well Material (circle one): PVC St. Steel

Well Integrity: Good. ~100 NE of school playground, along fence

Weather: 70°F, partly cloudy, 10-15 SE

Sampled By: Johnson Schulz

HNu Background: —

HNu Wellhead: —

HNu Breathing Zone: —

WELL PURGING

PURGE DATE: 12/14

PURGE VOLUME:

Casing Diameter (inches): 2"

Water Depth (ft. BTOC): 34.24 Keck (Slope) Other _____ Time: 1600

Casing Depth (ft. BTOC): 43.55 Keck (Slope) Other _____

Casing Depth (corrected): 43.68 (+.09 feet for Keck)

One Purge Volume: 1.5 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 1728

Stop _____

Total elapsed _____ minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

None Detected Slope

DNAPL _____

LNAPL _____

Depth to Top (ft.) _____

Depth to Bottom (ft.) _____

Thickness (ft.) _____

FIELD PARAMETER MEASUREMENT

Time of last calibration: _____

Time of Measurement	Vol.** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1731	1.5	20.1	6.66	0.920	509	5.04	Gray	none	
1734	1.5	20.2	6.65	0.919	616	5.01	Gray	none	
1738	1.5	20.2	6.65	0.919	730	5.07	Gray	none	
	4.5								
	4.6	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/14/96

Sample Time: 17:35 Start: 17:40 Finish: 17:50

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A1603C1		SW8240				
02		SW8270				
03		SW6010 TR / SW7470		WETA535-01		
04		SW6010 TR / SW7470		WETA535-01M		17:00

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: pH micropurge 1.5 (metals)
pH - bailer sample = 20.
no lock

Recorded by: Schulz

JACOBS ENGINEERING GROUP INC.

December
~~November~~ 1996

4101060

GROUNDWATER SAMPLING DATA SHEET

Round 1

Carswell Background Study - 05G47900

Well Number: USGS01T

Well Type (circle one) Flushmount Stickup

HNu Background: NA

Well Material (circle one) PVC St. Steel

HNu Wellhead: NA

Well Integrity: OK, but compromised by cable and chain hanging in well

HNu Breathing Zone: NA

Weather: 65°F, clear, 5-15 SW

Sampled By: Neely, Schultz

WELL PURGING

PURGE DATE: 12/9/96

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE VOLUME:

Casing Diameter (inches): 2" PVC

Water Depth (ft. BTOC): 11.22 Keck Slope Other _____ Time: 10.45

Casing Depth (ft. BTOC): 19.88 Keck Slope Other _____

Casing Depth (corrected): 20.01 (+.09 feet for Keck)

One Purge Volume: 1.4 Gallons

PURGE TIME:

Start 1145

Stop 1220

Total elapsed 35 minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES:

(Interface Probe Only)

None Detected Slope

DNAPL

LNAPL

Depth to Top (ft.)

Depth to Bottom (ft.)

Thickness (ft.)

FIELD PARAMETER MEASUREMENT

Time of last calibration: 1035

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1157	1.4	20.3	6.90	0.830	+999	2.56	Brown	None	
1200	1.4	20.3	6.95	0.793	+999	2.68	"	"	
1204	1.4	20.1	6.94	0.807	+999	2.92	"	"	
	4.2	Total Purge Volume							

**Individual volumes, not cumulative

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? Y N

Sample Date: 12/9/96

Sample Time: 1220 Start: 1210 Finish: 1225

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A160401	2 x 40ml VOA	SW 8240	HCL	USGS01T		
" 02	2 x 1L Amber	SW 8270	4°C	USGS01T		
" 03	1 x 1L Plastic	SW 6010 Trace SW7470	HNO3	USGS01T		
" 04	1 x 1L Plastic	SW 6010 Trace SW7470	HNO3	USGS01T-M		

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: Replaced cap and lock.

Recorded by: Schultz / Neely

JACOBS ENGINEERING GROUP INC.

4101061

November 1996 — GROUNDWATER SAMPLING DATA SHEET — Round 1

Carswell Background Study - 05G47900

Well Number: USGS02T

Well Type (circle one): (Flushmount) Stickup

Well Material (circle one): (PVC) St. Steel

Well Integrity: Good, lock is very rusty.

HNu Background: NA

HNu Wellhead: NA

HNu Breathing Zone: NA

Weather: Clear, windy, 55°F

Sampled By: Neely Schultz

WELL PURGING

PURGE DATE: 12/9/96

PURGE VOLUME:

Casing Diameter (inches): 2

Water Depth (ft. BTOC): 18.94 Keck (Slope) Other _____ Time: _____

Casing Depth (ft. BTOC): 30.1 Keck (Slope) Other _____

Casing Depth (corrected): 30.23 (+.09 feet for Keck)

One Purge Volume: 1.8 Gallons

Conversion Factors
2" sched. 40 = .163 gal./ft.
4" sched 40 = .653 gal./ft.
4" sched. 80 = .574 gal./ft.
5" sched. 80 = .920 gal./ft.

PURGE TIME:

Start 15:50

Stop 16:05

Total elapsed 15 minutes

PURGE METHOD:

X 1.88 - inch Teflon bailer

___ Bailer type: _____

___ Grundfos

___ Dedicated Triloc

___ Other: _____

IMMISCIBLE PHASES: (Interface Probe Only)

None Detected slope (NA)

DNAPL

LNAPL

Depth to Top (ft.)

Depth to Bottom (ft.)

Thickness (ft.)

FIELD PARAMETER MEASUREMENT

Time of last calibration: _____

Time of Measurement	Vol. ** Purged	Temp °C	pH	Cond. (ATC) (mMhos/cm)	Turbidity mg/L	D. O. (mg/L)	Color	Odor	Comments
1557	2.0 ~~1.8~~	20.5	7.12	0.609	—	1.82	Brown	none	
1600	1.8	20.5	7.26	0.608	—	0.84	"	"	
1605	1.8	20.5	7.25	0.613	—	1.25	"	"	
	5.6	Total Purge Volume							

**Individual volumes, not cumulative — Turbidity meter not operable.

WELL SAMPLING

SAMPLING METHOD (check one)

X 1.88 - inch Teflon bailer

___ Dedicated Triloc pump

___ Other _____

Bottom-Emptying Device for VOC's? (Y) N

Sample Date: 12/9/96

Sample Time: 16:10 Start: 16:05 Finish: 16:10

Sample No.	Volume/Cont.	Analysis Requested	Preserv.	Sample ID	QC?	Comments
CR-A160501	2 x 40 ml	SW8240	HCL	USGS02T		
" 02	2 x 1L Amber	SW8270	4°C	USGS02T		
" 03	1 x 1L Plastic	SW6010 SW7470	HNO_3	USGS02T		
" 04	"	"	"	USGS02T-M		

QUALITY CONTROL SAMPLES

TYPE	SAMPLE ID	C-of-C
Ambient Blank		
Duplicate		
Equipment Blank		
Trip Blank		

Additional comments: _____

Recorded by: Neely Schultz

JACOBS ENGINEERING GROUP INC.

4101062

TAB

Appendix E

APPENDIX E

Surface Water Data Sheets

Naval Air Station, Fort Worth Background Study Report
January 1998

SURFACE WATER SAMPLING DATA SHEET 4101064 ROUND __

Air Force Plant 4 – 05G10300 IRPIMS Site ID: AFP04 Date Sampled: 11/20/96

Location Description: White Settlement animal shelter

Sampled By: Schultz, Neely Location ID: JEFB001

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1000	17.9	0.524	7.61	Slight green	2	not taken	DO ~~4.79~~ DAS 5.46

SAMPLE TIME: 0945/0950 Start 0940 Finish 0955

__ Pond Sampler
X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW -				Coarse pebbly sand (SP) with pebbles
SW -				up to 1 cm, <5% fines, <5% pebbles.
SW -				Pebbles subrounded, other grains sub-
SW -				angular. Yellow-Brown 2.5Y 6/4
SW -				

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments: <10% fines; coarse sand, pebbles, some gravel. Calibrated Horiba

Recorded by: Dan Schultz

SURFACE WATER SAMPLING DATA SHEET ROUND __

Air Force Plant 4 – 05G10300 IRPIMS Site ID: AFP04 Date Sampled: 11/20/96

Location Description: U.S. Road bridge @ Cherry Lane

Sampled By: Schultz, Neely Location ID: JEFB002

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1055	18.6	0.530	7.79	V. light green	6	none	DO= 5.86

SAMPLE TIME: 1040/1045 Start 1040 Finish 1050

__ Pond Sampler
X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW -				Medium - coarse sand (SP-SW), <5%
SW -				fines, no pebbles, grains subangular,
SW -				dark color from dark gray shale
SW -				grains. Dark grayish brown
SW -				2.5Y 4/2

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments:

Recorded by: Dan Schultz

4101065 **SURFACE WATER SAMPLING DATA SHEET** ROUND __

Air Force Plant 4 – 05G10300 **IRPIMS Site ID: AFP04** Date Sampled: 11/20/96

Location Description: Mirike bridge, downstream side, center of channel

Sampled By: Schultz, Neely **Location ID:** JEFB003

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1241	20.3	0.581	8.01	none	0	none	DO. = 12.50

SAMPLE TIME: 1220/1225 Start 1220 Finish 1240 Dupe time: __ Pond Sampler X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW - Chain #	CR-A1594			Fine and Very Fine Sand with Silt (SM)
SW -	CR-A1595			15-20% fines. Angular to subangular
SW -				very-fine sand is mostly dark color, fine
SW -				grains are partly white limestone
SW -				Dark greenish gray GLEY 3/10Y

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 - Dupe all methods and
Equipment Blank	SW3 - media
Trip Blank	SW4 -

Additional comments: Calibrated Horiba

Recorded by: Dan Sely

SURFACE WATER SAMPLING DATA SHEET ROUND

Air Force Plant 4 – 05G10300 **IRPIMS Site ID: AFP04** Date Sampled: 11/20/96

Location Description: Pemberton St bridge

Sampled By: Schultz/Neely **Location ID:** JEFB004

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1334	22.4	0.598	8.06	none	0	Slight fishy	DO = 16.5 mg/L

SAMPLE TIME: 1330/1335 Start 1325 Finish 1335 __ Pond Sampler X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW -				Medium to coarse sand, pebbly (SW)
SW -				<5% fines, 15-20% pebbles >5mm
SW -				Pebbles are subrounded, sand subangular
SW -				to angular, minimal shale grains.
SW -				Olive Brown 2.5Y 4/3

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments:

Recorded by: Schultz

SURFACE WATER SAMPLING DATA SHEET 4101066 ROUND __

Air Force Plant 4 – 05G10300 IRPIMS Site ID: AFP04 Date Sampled: 11/20/96

Location Description: Linear Park (Las Vegas Trail and Rowland)

Sampled By: Schultz – Neely Location ID: JEFB005

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1417	22.8	0.593	7.58	none	0	Slight fishy	D.O = 15.50

SAMPLE TIME: 1410/1415 Start 1405 Finish 1415

__ Pond Sampler
X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW- Chain #	CR-A1597			Silty gravel (GM) 5-10% fines, 40-50%
SW-				medium to coarse sand, 40-50% pebbles
SW-				(3mm - 6mm) Many dark minerals
SW-				Dark olive-gray 5Y 3/2
SW-				

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments: Calibrated Horiba

Recorded by: Schultz

SURFACE WATER SAMPLING DATA SHEET ROUND __

Air Force Plant 4 – 05G10300 IRPIMS Site ID: AFP04 Date Sampled: 11/20/96

Location Description: Dale St Bridge, Farmers Branch, upstream

Sampled By: Schultz / Neely Location ID: JEFB006

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
15:09	20.5	0.624	7.63	none	0	none	D.O.: 10.67

SAMPLE TIME: 1500/1505 Start 1500 Finish 1510

__ Pond Sampler
X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW- Chain #	CR-A1597			Silty sand with pebbles (SW) Medium to
SW-				coarse sand, subangular, with 5-10%
SW-				fines and <10% pebbles >5mm. (limestone)
SW-				dark, grayish brown. 2.5Y 4/2
SW-				

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments:

Recorded by: Schultz

SURFACE WATER SAMPLING DATA SHEET 410 1066A ROUND __

Air Force Plant 4 – 05G10300 IRPIMS Site ID: AFP04 Date Sampled: 11/20/96

Location Description: Farmers Branch tributary at 820-South frontage Road

Sampled By: Schultz - Nealy **Location ID:** JEF3007

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1550	18.6	0.532	7.42	Slight Green Tint	0	none	DO = 8.15

SAMPLE TIME: 1545/1550 Start 1540 Finish 1550

__ Pond Sampler
X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
~~SW-AIS~~ ~~CR-A15~~	~~94mm~~			Coarse, pebbly sand with some fines
SW -				(SW), medium to very coarse, subangular
SW -				<5% fines, 10% pebbles to 4mm, mostly
SW -				limestone, some shale fragments.
SW -				"Salt and pepper" appearance, light olive brown 2.5Y 5/4

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments: Calibrated Horiba

Recorded by: Schultz

SURFACE WATER SAMPLING DATA SHEET ROUND

Air Force Plant 4 – 05G10300 IRPIMS Site ID: AFP04 Date Sampled: 11/20/96

Location Description: Farmers branch at South 820 frontage road.

Sampled By: Schultz - Nealy **Location ID:** JEFB006

Time of Measurement	Temp °C	Cond. (mMhos/cm)	pH	Color	Turbidity	Odor	Other
1635	20.8	0.555	8.16	none	0		DO. = 10.2

SAMPLE TIME: 1625/1630 Start 1620 Finish 1630

__ Pond Sampler
X Polypropylene Beaker

Sample No.	Volume/Cont.	Analysis Requested	Preservative	Comments
SW -				Fine to medium sand, pebbly (SW) ~~<5%~~ DOS
SW -			5-10%	fines, pebbles to ~3mm. (10%); Grains
SW -				angular to subangular.
SW -				Dark grayish brown, 2.5Y 4/2
SW -				

QUALITY CONTROL SAMPLES

TYPE	SAMPLE NUMBER
Ambient Blank	SW1 -
Duplicate	SW2 -
Equipment Blank	SW3 -
Trip Blank	SW4 -

Additional comments:

Recorded by: Schultz

4101067

TAB

Appendix F

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ALUMINUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA501-A	MG/KG	ALUMINUM	19900	19900	1790.0000	-18110.0000			9.8985	7.4900	-2.4085			30	0.968	1.849	=		1.3000	64.4000
BJETA502-A	MG/KG	ALUMINUM	19500	19500	2680.0000	-16820.0000			9.8782	7.8936	-1.9846			29	0.935	1.518	=		1.3000	64.2000
BJETA503-A	MG/KG	ALUMINUM	16700	16700	3350.0000	-13350.0000			9.7232	8.1167	-1.6064			28	0.903	1.300	=		1.2500	62.0000
BJETA504-A	MG/KG	ALUMINUM	16500	16500	3690.0000	-12810.0000			9.7111	8.2134	-1.4977			27	0.871	1.131	=		1.2700	63.1000
BJETA527-A	MG/KG	ALUMINUM	16300	16300	4000.0000	-12300.0000			9.6989	8.2940	-1.4049			26	0.839	0.989	=		1.2500	62.0000
BJETA508-A	MG/KG	ALUMINUM	16200	16200	6200.0000	-10000.0000			9.6928	8.7323	-0.9605			25	0.806	0.865	=		1.2700	63.1000
BJETA509-A	MG/KG	ALUMINUM	15600	15600	6500.0000	-9100.0000			9.6550	8.7796	-0.8755			24	0.774	0.753	=		1.2800	63.2000
BJETA516-A	MG/KG	ALUMINUM	15500	15500	7180.0000	-8320.0000			9.6486	8.8791	-0.7695			23	0.742	0.649	=		1.2300	60.9000
BJETA505-A	MG/KG	ALUMINUM	15400	15400	7960.0000	-7440.0000			9.6421	8.9822	-0.6599			22	0.710	0.552	=		1.2700	62.9000
BJETA506-A	MG/KG	ALUMINUM	14100	14100	8610.0000	-5490.0000			9.5539	9.0607	-0.4933			21	0.677	0.460	=		1.2800	63.1000
BJETA510-A	MG/KG	ALUMINUM	13600	13600	9080.0000	-4520.0000			9.5178	9.1138	-0.4040			20	0.645	0.372	=		1.2500	61.7000
BJETA511-A	MG/KG	ALUMINUM	11800	11800	9210.0000	-2590.0000			9.3759	9.1280	-0.2478			19	0.613	0.287	=		1.2300	61.0000
BJETA507-A	MG/KG	ALUMINUM	11300	11300	9320.0000	-1980.0000			9.3326	9.1399	-0.1926			18	0.581	0.204	=		1.2100	59.9000
BJETA514-A	MG/KG	ALUMINUM	10900	10900	9580.0000	-1320.0000			9.2965	9.1674	-0.1291			17	0.548	0.122	=		1.2200	60.3000
BJETA521-A	MG/KG	ALUMINUM	10500	10500	10300.0000	-200.0000			9.2591	9.2399	-0.0192			16	0.516	0.040	=		1.2900	63.7000
BJETA517-A	MG/KG	ALUMINUM	10300	10300	10500.0000	200.0000	0.0076	1.5200	9.2399	9.2591	0.0192	0.0076	0.0001	15	0.484	-0.040	=		1.2500	61.7000
BJETA518-A	MG/KG	ALUMINUM	9580	9580	10900.0000	1320.0000	0.0227	29.9640	9.1674	9.2965	0.1291	0.0227	0.0029	14	0.452	-0.122	=		1.2200	60.2000
BJETA524-A	MG/KG	ALUMINUM	9320	9320	11300.0000	1980.0000	0.0381	75.4380	9.1399	9.3326	0.1926	0.0381	0.0073	13	0.419	-0.204	=		1.2500	62.1000
BJETA520-A	MG/KG	ALUMINUM	9210	9210	11800.0000	2590.0000	0.0537	139.0830	9.1280	9.3759	0.2478	0.0537	0.0133	12	0.387	-0.287	=		1.2100	59.7000
BJETA512-A	MG/KG	ALUMINUM	9080	9080	13600.0000	4520.0000	0.0697	315.0440	9.1138	9.5178	0.4040	0.0697	0.0282	11	0.355	-0.372	=		1.2600	62.2000
BJETA534-A	MG/KG	ALUMINUM	8610	8610	14100.0000	5490.0000	0.0862	473.2380	9.0607	9.5539	0.4933	0.0862	0.0425	10	0.323	-0.460	=		1.2000	59.5000
BJETA522-A	MG/KG	ALUMINUM	7960	7960	15400.0000	7440.0000	0.1036	770.7840	8.9822	9.6421	0.6599	0.1036	0.0684	9	0.290	-0.552	=		1.2200	60.3000
BJETA535-A	MG/KG	ALUMINUM	7180	7180	15500.0000	8320.0000	0.1219	1014.2080	8.8791	9.6486	0.7695	0.1219	0.0938	8	0.258	-0.649	=		1.2100	59.8000
BJETA523-A	MG/KG	ALUMINUM	6500	6500	15600.0000	9100.0000	0.1415	1287.6500	8.7796	9.6550	0.8755	0.1415	0.1239	7	0.226	-0.753	=		1.2400	61.4000
BJETA519-A	MG/KG	ALUMINUM	6200	6200	16200.0000	10000.0000	0.1630	1630.0000	8.7323	9.6928	0.9605	0.1630	0.1566	6	0.194	-0.865	=		1.2000	59.6000
BJETA533-A	MG/KG	ALUMINUM	4000	4000	16300.0000	12300.0000	0.1870	2300.1000	8.2940	9.6989	1.4049	0.1870	0.2627	5	0.161	-0.989	=		1.1500	57.0000
BJETA528-A	MG/KG	ALUMINUM	3690	3690	16500.0000	12810.0000	0.2148	2751.5880	8.2134	9.7111	1.4977	0.2148	0.3217	4	0.129	-1.131	=		1.1500	56.8000
BJETA532-A	MG/KG	ALUMINUM	3350	3350	16700.0000	13350.0000	0.2487	3320.1450	8.1167	9.7232	1.6064	0.2487	0.3995	3	0.097	-1.300	=		1.1300	55.8000
BJETA530-A	MG/KG	ALUMINUM	2680	2680	19500.0000	16820.0000	0.2944	4951.8080	7.8936	9.8782	1.9846	0.2944	0.5843	2	0.065	-1.518	=		1.0900	53.8000
BJETA531-A	MG/KG	ALUMINUM	1790	1790	19900.0000	18110.0000	0.4254	7703.9940	7.4900	9.8985	2.4085	0.4254	1.0246	1	0.032	-1.849	=		1.1000	54.2000
							b =	26764.6				b =	3.1298							
		0	30																	
		% Non-detect	0.0%			W	0.960				W	0.896								
		Range (Raw)	1790.0	19900.0		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		10775.0					9.137											
		Std Dev		5071.9028					0.614		0.927	0.896		0.960						
		UTL (min 95)		22034.624	1790.0	19900.0	10775.0	5071.9	36318.091											
		UTL (ave 95)		19534.176					26833.503											
		Outlier Test (raw)		1.7991	None															
		Outlier Test (log)		1.2401	None															
		UTL 95,99		26315.310			UTL 95,99		60975.263											

ANTIMONY

LOCATION	SAMPLE_ID	METHOD	UNITS	NAME	VALUE	CALC	PVQ	LABQ	DETECT	PQUANT
BJETA505	BJETA505-A	SW7041	MG/KG	ANTIMONY	0.5600	0.5600	TR	F	0.2500	0.6300
BJETA508	BJETA508-A	SW7041	MG/KG	ANTIMONY	0.4290	0.4290	TR	F	0.2520	0.6310
BJETA511	BJETA511-A	SW7041	MG/KG	ANTIMONY	0.3960	0.3960	TR	F	0.2440	0.6100
BJETA514	BJETA514-A	SW7041	MG/KG	ANTIMONY	0.3810	0.3810	TR	F	0.2410	0.6030
BJETA517	BJETA517-A	SW7041	MG/KG	ANTIMONY	0.3340	0.3340	TR	F	0.2470	0.6170
BJETA506	BJETA506-A	SW7041	MG/KG	ANTIMONY	0.3300	0.3300	TR	F	0.2500	0.6300
BJETA501	BJETA501-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1200	ND	U	41.2000	103.0000
BJETA502	BJETA502-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1300	ND	U	0.2600	0.6400
BJETA521	BJETA521-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1275	ND	U	0.2550	0.6370
BJETA509	BJETA509-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1265	ND	U	0.2530	0.6320
BJETA503	BJETA503-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1250	ND	U	0.2500	0.6200
BJETA504	BJETA504-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1250	ND	U	0.2500	0.6300
BJETA512	BJETA512-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1245	ND	U	0.2490	0.6220
BJETA524	BJETA524-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1240	ND	U	0.2480	0.6210
BJETA527	BJETA527-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1240	ND	U	0.2480	0.6200
BJETA510	BJETA510-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1235	ND	U	0.2470	0.6170
BJETA523	BJETA523-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1230	ND	U	0.2460	0.6140
BJETA516	BJETA516-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1220	ND	U	0.2440	0.6090
BJETA518	BJETA518-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1205	ND	U	0.2410	0.6020
BJETA522	BJETA522-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1205	ND	U	0.2410	0.6030
BJETA507	BJETA507-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1200	ND	U	0.2400	0.5990
BJETA520	BJETA520-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1195	ND	U	0.2390	0.5970
BJETA535	BJETA535-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1195	ND	U	0.2390	0.5980
BJETA519	BJETA519-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1190	ND	U	0.2380	0.5960
BJETA534	BJETA534-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1190	ND	U	0.2380	0.5950
BJETA533	BJETA533-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1140	ND	U	0.2280	0.5700
BJETA528	BJETA528-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1135	ND	U	0.2270	0.5680
BJETA532	BJETA532-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1115	ND	U	0.2230	0.5580
BJETA531	BJETA531-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1085	ND	U	0.2170	0.5420
BJETA530	BJETA530-A	SW7041	MG/KG	ANTIMONY	0.0000	0.1075	ND	U	0.2150	0.5380
				24	30					
				% Non-detect	80.0%					
				Range (Raw)	0.1075	0.56				
				Mean		0.1773				
				Std Dev		0.1212				

4101072

ARSENIC

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA504-A	MG/KG	ARSENIC	5.88	5.88	1.2300	-4.6500			1.7716	0.2070	-1.5645			30	0.968	1.849	=		0.5800	0.6310
BJETA510-A	MG/KG	ARSENIC	5.20	5.20	1.2400	-3.9600			1.6487	0.2151	-1.4335			29	0.935	1.518	=		0.5670	0.6170
BJETA508-A	MG/KG	ARSENIC	4.78	4.78	1.5100	-3.2700			1.5644	0.4121	-1.1523			28	0.903	1.300	=		0.5800	0.6310
BJETA509-A	MG/KG	ARSENIC	4.73	4.73	2.1800	-2.5500			1.5539	0.7793	-0.7746			27	0.871	1.131	=		0.5820	0.6320
BJETA502-A	MG/KG	ARSENIC	4.38	4.38	2.8400	-1.5400			1.4770	1.0438	-0.4332			26	0.839	0.989	=		0.5910	0.6420
BJETA511-A	MG/KG	ARSENIC	4.24	4.24	2.8500	-1.3900			1.4446	1.0473	-0.3972			25	0.806	0.865	=		0.5610	0.6100
BJETA517-A	MG/KG	ARSENIC	4.22	4.22	2.9600	-1.2600			1.4398	1.0852	-0.3546			24	0.774	0.753	=		0.5670	0.6170
BJETA503-A	MG/KG	ARSENIC	4.21	4.21	2.9800	-1.2300			1.4375	1.0919	-0.3455			23	0.742	0.649	=		0.5710	0.6200
BJETA516-A	MG/KG	ARSENIC	4.04	4.04	3.0200	-1.0200			1.3962	1.1053	-0.2910			22	0.710	0.552	=		0.5600	0.6090
BJETA519-A	MG/KG	ARSENIC	3.93	3.93	3.2400	-0.6900			1.3686	1.1756	-0.1931			21	0.677	0.460	=		0.5480	0.5960
BJETA512-A	MG/KG	ARSENIC	3.89	3.89	3.3000	-0.5900			1.3584	1.1939	-0.1645			20	0.645	0.372	=		0.5720	0.6220
BJETA527-A	MG/KG	ARSENIC	3.68	3.68	3.3500	-0.3300			1.3029	1.2090	-0.0940			19	0.613	0.287	=		0.5710	0.6200
BJETA514-A	MG/KG	ARSENIC	3.65	3.65	3.4300	-0.2200			1.2947	1.2326	-0.0622			18	0.581	0.204	=		0.5550	0.6030
BJETA534-A	MG/KG	ARSENIC	3.62	3.62	3.4600	-0.1600			1.2865	1.2413	-0.0452			17	0.548	0.122	=		0.5480	0.5950
BJETA520-A	MG/KG	ARSENIC	3.61	3.61	3.4800	-0.1300			1.2837	1.2470	-0.0367			16	0.516	0.040	=		0.5500	0.5970
BJETA518-A	MG/KG	ARSENIC	3.48	3.48	3.6100	0.1300	0.0076	0.0010	1.2470	1.2837	0.0367	0.0076	0.0003	15	0.484	-0.040	=		0.5540	0.6020
BJETA524-A	MG/KG	ARSENIC	3.46	3.46	3.6200	0.1600	0.0227	0.0036	1.2413	1.2865	0.0452	0.0227	0.0010	14	0.452	-0.122	=		0.5710	0.6210
BJETA535-A	MG/KG	ARSENIC	3.43	3.43	3.6500	0.2200	0.0381	0.0084	1.2326	1.2947	0.0622	0.0381	0.0024	13	0.419	-0.204	=		0.5500	0.5980
BJETA507-A	MG/KG	ARSENIC	3.35	3.35	3.6800	0.3300	0.0537	0.0177	1.2090	1.3029	0.0940	0.0537	0.0050	12	0.387	-0.287	=		0.5510	0.5990
BJETA506-A	MG/KG	ARSENIC	3.30	3.30	3.8900	0.5900	0.0697	0.0411	1.1939	1.3584	0.1645	0.0697	0.0115	11	0.355	-0.372	=		0.5810	0.6310
BJETA521-A	MG/KG	ARSENIC	3.24	3.24	3.9300	0.6900	0.0862	0.0595	1.1756	1.3686	0.1931	0.0862	0.0166	10	0.323	-0.460	=		0.5860	0.6370
BJETA528-A	MG/KG	ARSENIC	3.02	3.02	4.0400	1.0200	0.1036	0.1057	1.1053	1.3962	0.2910	0.1036	0.0301	9	0.290	-0.552	=		0.5230	0.5680
BJETA505-A	MG/KG	ARSENIC	2.98	2.98	4.2100	1.2300	0.1219	0.1499	1.0919	1.4375	0.3455	0.1219	0.0421	8	0.258	-0.649	=		0.5790	0.6290
BJETA522-A	MG/KG	ARSENIC	2.96	2.96	4.2200	1.2600	0.1415	0.1783	1.0852	1.4398	0.3546	0.1415	0.0502	7	0.226	-0.753	=		0.5550	0.6030
BJETA501-A	MG/KG	ARSENIC	2.85	2.85	4.2400	1.3900	0.1630	0.2266	1.0473	1.4446	0.3972	0.1630	0.0648	6	0.194	-0.865	=		0.5900	0.6440
BJETA533-A	MG/KG	ARSENIC	2.84	2.84	4.3800	1.5400	0.1870	0.2880	1.0438	1.4770	0.4332	0.1870	0.0810	5	0.161	-0.989	=		0.5250	0.5700
BJETA523-A	MG/KG	ARSENIC	2.18	2.18	4.7300	2.5500	0.2148	0.5477	0.7793	1.5539	0.7746	0.2148	0.1664	4	0.129	-1.131	=		0.5650	0.6140
BJETA532-A	MG/KG	ARSENIC	1.51	1.51	4.7800	3.2700	0.2487	0.8132	0.4121	1.5644	1.1523	0.2487	0.2866	3	0.097	-1.300	=		0.5130	0.5580
BJETA530-A	MG/KG	ARSENIC	1.24	1.24	5.2000	3.9600	0.2944	1.1658	0.2151	1.6487	1.4335	0.2944	0.4220	2	0.065	-1.518	=		0.4950	0.5380
BJETA531-A	MG/KG	ARSENIC	1.23	1.23	5.8800	4.6500	0.4254	1.9781	0.2070	1.7716	1.5645	0.4254	0.6656	1	0.032	-1.849	=		0.4990	0.5420
							b =	5.5847				b =	1.8456							
		0	30																	
		% Non-detect	0.0%			W	0.959				W	0.851								
		Range (Raw)	1.23	5.88		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		3.5043					1.197											
		Std Dev		1.0588					0.372		0.927	0.851		0.959						
		UTL (min 95)		5.855	1.2300	5.8800	3.50433	1.05879	7.553											
		UTL (ave 95)		5.333					6.289											
		Outlier Test (raw)		2.2438	None															
		Outlier Test (log)		1.5459	None															
		UTL 95,99		6.748			UTL 95,99		10.336											

4101073

BARIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA534-A	MG/KG	BARIUM	1980.0	1980.0	24.9000	-1955.1000			7.5909	3.2149	-4.3760			30	0.968	1.849	=		0.0476	2.3800
BJETA502-A	MG/KG	BARIUM	233.0	233.0	28.6000	-204.4000			5.4510	3.3534	-2.0976			29	0.935	1.518	=		0.0513	2.5700
BJETA516-A	MG/KG	BARIUM	185.0	185.0	30.4000	-154.6000			5.2204	3.4144	-1.8059			28	0.903	1.300	=		0.0487	2.4400
BJETA509-A	MG/KG	BARIUM	126.0	126.0	37.8000	-88.2000			4.8363	3.6323	-1.2040			27	0.871	1.131	=		0.0506	2.5300
BJETA511-A	MG/KG	BARIUM	117.0	117.0	39.0000	-78.0000			4.7622	3.6636	-1.0986			26	0.839	0.989	=		0.0488	2.4400
BJETA507-A	MG/KG	BARIUM	116.0	116.0	39.8000	-76.2000			4.7536	3.6839	-1.0697			25	0.806	0.865	=		0.0479	2.4000
BJETA527-A	MG/KG	BARIUM	103.0	103.0	40.4000	-62.6000			4.6347	3.6988	-0.9359			24	0.774	0.753	=		0.0496	2.4800
BJETA504-A	MG/KG	BARIUM	100.0	100.0	57.0000	-43.0000			4.6052	4.0431	-0.5621			23	0.742	0.649	=		0.0504	2.5200
BJETA505-A	MG/KG	BARIUM	91.4	91.4	63.3000	-28.1000			4.5152	4.1479	-0.3674			22	0.710	0.552	=		0.0503	2.5200
BJETA521-A	MG/KG	BARIUM	88.7	88.7	63.3000	-25.4000			4.4853	4.1479	-0.3374			21	0.677	0.460	=		0.0510	2.5500
BJETA520-A	MG/KG	BARIUM	86.0	86.0	66.6000	-19.4000			4.4543	4.1987	-0.2556			20	0.645	0.372	=		0.0478	2.3900
BJETA508-A	MG/KG	BARIUM	84.7	84.7	70.9000	-13.8000			4.4391	4.2613	-0.1778			19	0.613	0.287	=		0.0504	2.5200
BJETA522-A	MG/KG	BARIUM	84.3	84.3	75.2000	-9.1000			4.4344	4.3202	-0.1142			18	0.581	0.204	=		0.0483	2.4100
BJETA503-A	MG/KG	BARIUM	83.1	83.1	80.8000	-2.3000			4.4200	4.3920	-0.0281			17	0.548	0.122	=		0.0496	2.4800
BJETA510-A	MG/KG	BARIUM	82.0	82.0	81.1000	-0.9000			4.4067	4.3957	-0.0110			16	0.516	0.040	=		0.0493	2.4700
BJETA506-A	MG/KG	BARIUM	81.1	81.1	82.0000	0.9000	0.0076	0.0068	4.3957	4.4067	0.0110	0.0076	0.0001	15	0.484	-0.040	=		0.0505	2.5300
BJETA518-A	MG/KG	BARIUM	80.8	80.8	83.1000	2.3000	0.0227	0.0522	4.3920	4.4200	0.0281	0.0227	0.0006	14	0.452	-0.122	=		0.0481	2.4100
BJETA517-A	MG/KG	BARIUM	75.2	75.2	84.3000	9.1000	0.0381	0.3467	4.3202	4.4344	0.1142	0.0381	0.0044	13	0.419	-0.204	=		0.0493	2.4700
BJETA512-A	MG/KG	BARIUM	70.9	70.9	84.7000	13.8000	0.0537	0.7411	4.2613	4.4391	0.1778	0.0537	0.0096	12	0.387	-0.287	=		0.0498	2.4900
BJETA514-A	MG/KG	BARIUM	66.6	66.6	86.0000	19.4000	0.0697	1.3522	4.1987	4.4543	0.2556	0.0697	0.0178	11	0.355	-0.372	=		0.0483	2.4100
BJETA524-A	MG/KG	BARIUM	63.3	63.3	88.7000	25.4000	0.0862	2.1895	4.1479	4.4853	0.3374	0.0862	0.0291	10	0.323	-0.460	=		0.0497	2.4800
BJETA535-A	MG/KG	BARIUM	63.3	63.3	91.4000	28.1000	0.1036	2.9112	4.1479	4.5152	0.3674	0.1036	0.0381	9	0.290	-0.552	=		0.0478	2.3900
BJETA523-A	MG/KG	BARIUM	57.0	57.0	100.0000	43.0000	0.1219	5.2417	4.0431	4.6052	0.5621	0.1219	0.0685	8	0.258	-0.649	=		0.0491	2.4600
BJETA519-A	MG/KG	BARIUM	40.4	40.4	103.0000	62.6000	0.1415	8.8579	3.6988	4.6347	0.9359	0.1415	0.1324	7	0.226	-0.753	=		0.0477	2.3800
BJETA533-A	MG/KG	BARIUM	39.8	39.8	116.0000	76.2000	0.1630	12.4206	3.6839	4.7536	1.0697	0.1630	0.1744	6	0.194	-0.865	=		0.0456	2.2800
BJETA501-A	MG/KG	BARIUM	39.0	39.0	117.0000	78.0000	0.1870	14.5860	3.6636	4.7622	1.0986	0.1870	0.2054	5	0.161	-0.989	=		0.0515	2.5700
BJETA532-A	MG/KG	BARIUM	37.8	37.8	126.0000	88.2000	0.2148	18.9454	3.6323	4.8363	1.2040	0.2148	0.2586	4	0.129	-1.131	=		0.0446	2.2300
BJETA530-A	MG/KG	BARIUM	30.4	30.4	185.0000	154.6000	0.2487	38.4490	3.4144	5.2204	1.8059	0.2487	0.4491	3	0.097	-1.300	=		0.0431	2.1500
BJETA528-A	MG/KG	BARIUM	28.6	28.6	233.0000	204.4000	0.2944	60.1754	3.3534	5.4510	2.0976	0.2944	0.6175	2	0.065	-1.518	=		0.0455	2.2700
BJETA531-A	MG/KG	BARIUM	24.9	24.9	1980.0000	1955.1000	0.4254	831.6995	3.2149	7.5909	4.3760	0.4254	1.8615	1	0.032	-1.849	=		0.0434	2.1700
							b =	997.98				b =	3.8672							
		0	30																	
		% Non-detect	0.0%			W	0.281				W	0.810								
		Range (Raw)	24.9	1980.0		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		145.31					4.386											
		Std Dev		349.3164					0.798		0.927	0.810		0.281						
		UTL (min 95)		920.792	24.90	1980.00	145.31	349.32	471.879											
		UTL (ave 95)		748.579					318.453											
		Outlier Test (raw)		5.2522	Outlier!															
		Outlier Test (log)		4.0179	Outlier!															
		UTL 95,99		1215.615			UTL 95,99		925.145											

410107 4

BERYLLIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-A	MG/KG	BERYLLIUM	1.0200	1.0200	0.1640	-0.8560			0.0198	-1.8079	-1.8277			30	0.968	1.849	=		0.0126	0.3790
BJETA516-A	MG/KG	BERYLLIUM	0.9320	0.9320	0.1800	-0.7520			-0.0704	-1.7148	-1.6444			29	0.935	1.518	=		0.0122	0.3650
BJETA502-A	MG/KG	BERYLLIUM	0.9260	0.9260	0.2290	-0.6970			-0.0769	-1.4740	-1.3972			28	0.903	1.300	=		0.0128	0.3850
BJETA507-A	MG/KG	BERYLLIUM	0.8910	0.8910	0.2540	-0.6370			-0.1154	-1.3704	-1.2550			27	0.871	1.131	=		0.0120	0.3590
BJETA508-A	MG/KG	BERYLLIUM	0.8860	0.8860	0.2780	-0.6080			-0.1210	-1.2801	-1.1591			26	0.839	0.989	=		0.0126	0.3780
BJETA511-A	MG/KG	BERYLLIUM	0.8660	0.8660	0.4230	-0.4430			-0.1439	-0.8604	-0.7165			25	0.806	0.865	=		0.0122	0.3660
BJETA527-A	MG/KG	BERYLLIUM	0.8630	0.8630	0.4870	-0.3760			-0.1473	-0.7195	-0.5722			24	0.774	0.753	=		0.0124	0.3720
BJETA505-A	MG/KG	BERYLLIUM	0.8350	0.8350	0.5200	-0.3150			-0.1803	-0.6539	-0.4736			23	0.742	0.649	=		0.0126	0.3770
BJETA521-A	MG/KG	BERYLLIUM	0.8150	0.8150	0.5250	-0.2900			-0.2046	-0.6444	-0.4398			22	0.710	0.552	=		0.0127	0.3820
BJETA503-A	MG/KG	BERYLLIUM	0.8060	0.8060	0.5620	-0.2440			-0.2157	-0.5763	-0.3606			21	0.677	0.460	=		0.0124	0.3720
BJETA520-A	MG/KG	BERYLLIUM	0.8030	0.8030	0.6330	-0.1700			-0.2194	-0.4573	-0.2379			20	0.645	0.372	=		0.0119	0.3580
BJETA506-A	MG/KG	BERYLLIUM	0.7840	0.7840	0.6410	-0.1430			-0.2433	-0.4447	-0.2014			19	0.613	0.287	=		0.0126	0.3790
BJETA504-A	MG/KG	BERYLLIUM	0.7810	0.7810	0.6440	-0.1370			-0.2472	-0.4401	-0.1929			18	0.581	0.204	=		0.0126	0.3780
BJETA510-A	MG/KG	BERYLLIUM	0.7550	0.7550	0.7020	-0.0530			-0.2810	-0.3538	-0.0728			17	0.548	0.122	=		0.0123	0.3700
BJETA517-A	MG/KG	BERYLLIUM	0.7270	0.7270	0.7250	-0.0020			-0.3188	-0.3216	-0.0028			16	0.516	0.040	=		0.0123	0.3700
BJETA512-A	MG/KG	BERYLLIUM	0.7250	0.7250	0.7270	0.0020	0.0076	0.0000	-0.3216	-0.3188	0.0028	0.0076	0.0000	15	0.484	-0.040	=		0.0124	0.3730
BJETA518-A	MG/KG	BERYLLIUM	0.7020	0.7020	0.7550	0.0530	0.0227	0.0012	-0.3538	-0.2810	0.0728	0.0227	0.0017	14	0.452	-0.122	=		0.0120	0.3610
BJETA524-A	MG/KG	BERYLLIUM	0.6440	0.6440	0.7810	0.1370	0.0381	0.0052	-0.4401	-0.2472	0.1929	0.0381	0.0073	13	0.419	-0.204	=		0.0124	0.3730
BJETA522-A	MG/KG	BERYLLIUM	0.6410	0.6410	0.7840	0.1430	0.0537	0.0077	-0.4447	-0.2433	0.2014	0.0537	0.0108	12	0.387	-0.287	=		0.0121	0.3620
BJETA514-A	MG/KG	BERYLLIUM	0.6330	0.6330	0.8030	0.1700	0.0697	0.0118	-0.4573	-0.2194	0.2379	0.0697	0.0166	11	0.355	-0.372	=		0.0121	0.3620
BJETA534-A	MG/KG	BERYLLIUM	0.5620	0.5620	0.8060	0.2440	0.0862	0.0210	-0.5763	-0.2157	0.3606	0.0862	0.0311	10	0.323	-0.460	=		0.0119	0.3570
BJETA523-A	MG/KG	BERYLLIUM	0.5250	0.5250	0.8150	0.2900	0.1036	0.0300	-0.6444	-0.2046	0.4398	0.1036	0.0456	9	0.290	-0.552	=		0.0123	0.3690
BJETA535-A	MG/KG	BERYLLIUM	0.5200	0.5200	0.8350	0.3150	0.1219	0.0384	-0.6539	-0.1803	0.4736	0.1219	0.0577	8	0.258	-0.649	=		0.0120	0.3590
BJETA501-A	MG/KG	BERYLLIUM	0.4870	0.4870	0.8630	0.3760	0.1415	0.0532	-0.7195	-0.1473	0.5722	0.1415	0.0810	7	0.226	-0.753	=		0.0129	0.3860
BJETA519-A	MG/KG	BERYLLIUM	0.4230	0.4230	0.8660	0.4430	0.1630	0.0722	-0.8604	-0.1439	0.7165	0.1630	0.1168	6	0.194	-0.865	=		0.0119	0.3580
BJETA533-A	MG/KG	BERYLLIUM	0.2780	0.2780	0.8860	0.6080	0.1870	0.1137	-1.2801	-0.1210	1.1591	0.1870	0.2168	5	0.161	-0.989	TR	F	0.0114	0.3420
BJETA532-A	MG/KG	BERYLLIUM	0.2540	0.2540	0.8910	0.6370	0.2148	0.1368	-1.3704	-0.1154	1.2550	0.2148	0.2696	4	0.129	-1.131	TR	F	0.0112	0.3350
BJETA528-A	MG/KG	BERYLLIUM	0.2290	0.2290	0.9260	0.6970	0.2487	0.1733	-1.4740	-0.0769	1.3972	0.2487	0.3475	3	0.097	-1.300	TR	F	0.0114	0.3410
BJETA530-A	MG/KG	BERYLLIUM	0.1800	0.1800	0.9320	0.7520	0.2944	0.2214	-1.7148	-0.0704	1.6444	0.2944	0.4841	2	0.065	-1.518	TR	F	0.0108	0.3230
BJETA531-A	MG/KG	BERYLLIUM	0.1640	0.1640	1.0200	0.8560	0.4254	0.3641	-1.8079	0.0198	1.8277	0.4254	0.7775	1	0.032	-1.849	TR	F	0.0108	0.3250
							b =	1.2503				b =	2.4639							
		0	30																	
		% Non-detect	0.0%			W	0.911				W	0.808								
		Range (Raw)	0.164	1.02		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		0.6552					-0.523											
		Std Dev		0.2432					0.509		0.927	0.808		0.911						
		UTL (min 95)		1.195	0.1640	1.0200	0.65523	0.24322	1.835											
		UTL (ave 95)		1.075					1.428											
		Outlier Test (raw)		1.4998	None															
		Outlier Test (log)		1.0662	None															
		UTL 95,99		1.400			UTL 95,99		2.820											

4101075

CALCIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA534-A	MG/KG	CALCIUM	111000	111000	418.0	-110582.0			11.6173	6.0355	-5.5818			30	0.968	1.849	=		2.6800	11.9000
BJETA535-A	MG/KG	CALCIUM	91400	91400	1720.0	-89680.0			11.4230	7.4501	-3.9729			29	0.935	1.518	=		2.6900	12.0000
BJETA524-A	MG/KG	CALCIUM	69600	69600	2300.0	-67300.0			11.1505	7.7407	-3.4099			28	0.903	1.300	=		2.8000	12.4000
BJETA519-A	MG/KG	CALCIUM	63200	63200	2370.0	-60830.0			11.0541	7.7706	-3.2834			27	0.871	1.131	=		2.6800	11.9000
BJETA502-A	MG/KG	CALCIUM	51700	51700	2800.0	-48900.0			10.8532	7.9374	-2.9158			26	0.839	0.989	=		2.8900	12.8000
BJETA504-A	MG/KG	CALCIUM	37100	37100	4330.0	-32770.0			10.5214	8.3733	-2.1480			25	0.806	0.865	=		2.8400	12.6000
BJETA503-A	MG/KG	CALCIUM	28200	28200	4430.0	-23770.0			10.2471	8.3962	-1.8509			24	0.774	0.753	=		2.7900	12.4000
BJETA510-A	MG/KG	CALCIUM	24700	24700	4790.0	-19910.0			10.1146	8.4743	-1.6403			23	0.742	0.649	=		2.7700	12.3000
BJETA527-A	MG/KG	CALCIUM	14800	14800	5410.0	-9390.0			9.6024	8.5960	-1.0064			22	0.710	0.552	=		2.7900	12.4000
BJETA505-A	MG/KG	CALCIUM	14600	14600	5940.0	-8660.0			9.5888	8.6895	-0.8993			21	0.677	0.460	=		2.8300	12.6000
BJETA532-A	MG/KG	CALCIUM	13800	13800	6450.0	-7350.0			9.5324	8.7718	-0.7606			20	0.645	0.372	=		2.5100	11.2000
BJETA514-A	MG/KG	CALCIUM	12500	12500	6700.0	-5800.0			9.4335	8.8099	-0.6236			19	0.613	0.287	=		2.7100	12.1000
BJETA521-A	MG/KG	CALCIUM	9820	9820	6900.0	-2920.0			9.1922	8.8393	-0.3529			18	0.581	0.204	=		2.8700	12.7000
BJETA508-A	MG/KG	CALCIUM	8690	8690	7440.0	-1250.0			9.0699	8.9146	-0.1553			17	0.548	0.122	=		2.8400	12.6000
BJETA533-A	MG/KG	CALCIUM	8460	8460	8150.0	-310.0			9.0431	9.0058	-0.0373			16	0.516	0.040	=		2.5700	11.4000
BJETA506-A	MG/KG	CALCIUM	8150	8150	8460.0	310.0	0.0076	2.3560	9.0058	9.0431	0.0373	0.0076	0.0003	15	0.484	-0.040	=		2.8400	12.6000
BJETA516-A	MG/KG	CALCIUM	7440	7440	8690.0	1250.0	0.0227	28.3750	8.9146	9.0699	0.1553	0.0227	0.0035	14	0.452	-0.122	=		2.7400	12.2000
BJETA511-A	MG/KG	CALCIUM	6900	6900	9820.0	2920.0	0.0381	111.2520	8.8393	9.1922	0.3529	0.0381	0.0134	13	0.419	-0.204	=		2.7400	12.2000
BJETA501-A	MG/KG	CALCIUM	6700	6700	12500.0	5800.0	0.0537	311.4600	8.8099	9.4335	0.6236	0.0537	0.0335	12	0.387	-0.287	=		2.9000	12.9000
BJETA509-A	MG/KG	CALCIUM	6450	6450	13800.0	7350.0	0.0697	512.2950	8.7718	9.5324	0.7606	0.0697	0.0530	11	0.355	-0.372	=		2.8400	12.6000
BJETA520-A	MG/KG	CALCIUM	5940	5940	14600.0	8660.0	0.0862	746.4920	8.6895	9.5888	0.8993	0.0862	0.0775	10	0.323	-0.460	=		2.6900	11.9000
BJETA507-A	MG/KG	CALCIUM	5410	5410	14800.0	9390.0	0.1036	972.8040	8.5960	9.6024	1.0064	0.1036	0.1043	9	0.290	-0.552	=		2.6900	12.0000
BJETA512-A	MG/KG	CALCIUM	4790	4790	24700.0	19910.0	0.1219	2427.0290	8.4743	10.1146	1.6403	0.1219	0.1999	8	0.258	-0.649	=		2.8000	12.4000
BJETA518-A	MG/KG	CALCIUM	4430	4430	28200.0	23770.0	0.1415	3363.4550	8.3962	10.2471	1.8509	0.1415	0.2619	7	0.226	-0.753	=		2.7100	12.0000
BJETA517-A	MG/KG	CALCIUM	4330	4330	37100.0	32770.0	0.1630	5341.5100	8.3733	10.5214	2.1480	0.1630	0.3501	6	0.194	-0.865	=		2.7700	12.3000
BJETA522-A	MG/KG	CALCIUM	2800	2800	51700.0	48900.0	0.1870	9144.3000	7.9374	10.8532	2.9158	0.1870	0.5453	5	0.161	-0.989	=		2.7100	12.1000
BJETA528-A	MG/KG	CALCIUM	2370	2370	63200.0	60830.0	0.2148	13066.2840	7.7706	11.0541	3.2834	0.2148	0.7053	4	0.129	-1.131	=		2.5600	11.4000
BJETA523-A	MG/KG	CALCIUM	2300	2300	69600.0	67300.0	0.2487	16737.5100	7.7407	11.1505	3.4099	0.2487	0.8480	3	0.097	-1.300	=		2.7600	12.3000
BJETA530-A	MG/KG	CALCIUM	1720	1720	91400.0	89680.0	0.2944	26401.7920	7.4501	11.4230	3.9729	0.2944	1.1696	2	0.065	-1.518	=		2.4200	10.8000
BJETA531-A	MG/KG	CALCIUM	418	418	111000.0	110582.0	0.4254	47041.5828	6.0355	11.6173	5.5818	0.4254	2.3745	1	0.032	-1.849	=		2.4400	10.8000
							b =	126208.50				b =	6.74							
		0	30																	
		% Non-detect	0.0%			W	0.687				W	0.969								
		Range (Raw)	418.0	111000.0		W (crit)	0.927				W (crit)	0.927								
							Reject					Accept								
		Mean		20990.6					9.208											
		Std Dev		28269.5582					1.271		0.927	0.969		0.687						
		UTL (min 95)		83749.019	418.0	111000.0	20990.6	28269.6	167787.850											
		UTL (ave 95)		69812.127					89655.327											
		Outlier Test (raw)		3.1840	Outlier!															
		Outlier Test (log)		1.8950	None															
		UTL 95,99		107608.526			UTL 95,99		490604.345											

4101076

CADMIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA524-A	MG/KG	CADMIUM	0.6250	0.6250	0.0540	-0.5710			-0.4700	-2.9188	-2.4488			30	0.968	1.849	=		0.1240	0.1240
BJETA534-A	MG/KG	CADMIUM	0.4510	0.4510	0.0605	-0.3905			-0.7963	-2.8051	-2.0088			29	0.935	1.518	=		0.1190	0.1190
BJETA502-A	MG/KG	CADMIUM	0.3560	0.3560	0.1280	-0.2280			-1.0328	-2.0557	-1.0229			28	0.903	1.300	=		0.1280	0.1280
BJETA535-A	MG/KG	CADMIUM	0.3000	0.3000	0.1380	-0.1620			-1.2040	-1.9805	-0.7765			27	0.871	1.131	=		0.1200	0.1200
BJETA503-A	MG/KG	CADMIUM	0.2830	0.2830	0.1410	-0.1420			-1.2623	-1.9590	-0.6967			26	0.839	0.989	=		0.1240	0.1240
BJETA504-A	MG/KG	CADMIUM	0.2790	0.2790	0.1450	-0.1340			-1.2765	-1.9310	-0.6545			25	0.806	0.865	=		0.1260	0.1260
BJETA508-A	MG/KG	CADMIUM	0.2640	0.2640	0.1490	-0.1150			-1.3318	-1.9038	-0.5720			24	0.774	0.753	=		0.1260	0.1260
BJETA505-A	MG/KG	CADMIUM	0.2330	0.2330	0.1560	-0.0770			-1.4567	-1.8579	-0.4012			23	0.742	0.649	=		0.1260	0.1260
BJETA510-A	MG/KG	CADMIUM	0.2300	0.2300	0.1630	-0.0670			-1.4697	-1.8140	-0.3443			22	0.710	0.552	=		0.1230	0.1230
BJETA506-A	MG/KG	CADMIUM	0.2260	0.2260	0.1630	-0.0630			-1.4872	-1.8140	-0.3268			21	0.677	0.460	=		0.1260	0.1260
BJETA521-A	MG/KG	CADMIUM	0.2060	0.2060	0.1650	-0.0410			-1.5799	-1.8018	-0.2219			20	0.645	0.372	=		0.1270	0.1270
BJETA527-A	MG/KG	CADMIUM	0.2060	0.2060	0.1670	-0.0390			-1.5799	-1.7898	-0.2099			19	0.613	0.287	=		0.1240	0.1240
BJETA511-A	MG/KG	CADMIUM	0.1980	0.1980	0.1670	-0.0310			-1.6195	-1.7898	-0.1703			18	0.581	0.204	=		0.1220	0.1220
BJETA516-A	MG/KG	CADMIUM	0.1860	0.1860	0.1690	-0.0170			-1.6820	-1.7779	-0.0958			17	0.548	0.122	=		0.1220	0.1220
BJETA530-A	MG/KG	CADMIUM	0.1740	0.1740	0.1710	-0.0030			-1.7487	-1.7661	-0.0174			16	0.516	0.040	=		0.1080	0.1080
BJETA517-A	MG/KG	CADMIUM	0.1710	0.1710	0.1740	0.0030	0.0076	0.0000	-1.7661	-1.7487	0.0174	0.0076	0.0001	15	0.484	-0.040	=		0.1230	0.1230
BJETA509-A	MG/KG	CADMIUM	0.1690	0.1690	0.1860	0.0170	0.0227	0.0004	-1.7779	-1.6820	0.0958	0.0227	0.0022	14	0.452	-0.122	=		0.1260	0.1260
BJETA523-A	MG/KG	CADMIUM	0.1670	0.1670	0.1980	0.0310	0.0381	0.0012	-1.7898	-1.6195	0.1703	0.0381	0.0065	13	0.419	-0.204	=		0.1230	0.1230
BJETA518-A	MG/KG	CADMIUM	0.1670	0.1670	0.2060	0.0390	0.0537	0.0021	-1.7898	-1.5799	0.2099	0.0537	0.0113	12	0.387	-0.287	=		0.1200	0.1200
BJETA507-A	MG/KG	CADMIUM	0.1650	0.1650	0.2060	0.0410	0.0697	0.0029	-1.8018	-1.5799	0.2219	0.0697	0.0155	11	0.355	-0.372	=		0.1200	0.1200
BJETA512-A	MG/KG	CADMIUM	0.1630	0.1630	0.2260	0.0630	0.0862	0.0054	-1.8140	-1.4872	0.3268	0.0862	0.0282	10	0.323	-0.460	=		0.1240	0.1240
BJETA520-A	MG/KG	CADMIUM	0.1630	0.1630	0.2300	0.0670	0.1036	0.0069	-1.8140	-1.4697	0.3443	0.1036	0.0357	9	0.290	-0.552	=		0.1190	0.1190
BJETA532-A	MG/KG	CADMIUM	0.1560	0.1560	0.2330	0.0770	0.1219	0.0094	-1.8579	-1.4567	0.4012	0.1219	0.0489	8	0.258	-0.649	=		0.1120	0.1120
BJETA514-A	MG/KG	CADMIUM	0.1490	0.1490	0.2640	0.1150	0.1415	0.0163	-1.9038	-1.3318	0.5720	0.1415	0.0809	7	0.226	-0.753	=		0.1210	0.1210
BJETA528-A	MG/KG	CADMIUM	0.1450	0.1450	0.2790	0.1340	0.1630	0.0218	-1.9310	-1.2765	0.6545	0.1630	0.1067	6	0.194	-0.865	=		0.1140	0.1140
BJETA519-A	MG/KG	CADMIUM	0.1410	0.1410	0.2830	0.1420	0.1870	0.0266	-1.9590	-1.2623	0.6967	0.1870	0.1303	5	0.161	-0.989	=		0.1190	0.1190
BJETA501-A	MG/KG	CADMIUM	0.1380	0.1380	0.3000	0.1620	0.2148	0.0348	-1.9805	-1.2040	0.7765	0.2148	0.1668	4	0.129	-1.131	=		0.1290	0.1290
BJETA533-A	MG/KG	CADMIUM	0.1280	0.1280	0.3560	0.2280	0.2487	0.0567	-2.0557	-1.0328	1.0229	0.2487	0.2544	3	0.097	-1.300	=		0.1140	0.1140
BJETA522-A	MG/KG	CADMIUM	0.0000	0.0605	0.4510	0.3905	0.2944	0.1150	-2.8051	-0.7963	2.0088	0.2944	0.5914	2	0.065	-1.518	ND	U	0.1210	0.1210
BJETA531-A	MG/KG	CADMIUM	0.0000	0.0540	0.6250	0.5710	0.4254	0.2429	-2.9188	-0.4700	2.4488	0.4254	1.0417	1	0.032	-1.849	ND	U	0.1080	0.1080
							b =	0.5423				b =	2.5205							
		2	30																	
		% Non-detect	6.7%			W	0.809				W	0.928								
		Range (Raw)	0.054	0.625		W (crit)	0.927				W (crit)	0.927								
							Reject					Accept								
		Mean		0.2118					-1.665											
		Std Dev		0.1119					0.486		0.927	0.928		0.809						
		UTL (min 95)		0.460	0.0540	0.6250	0.21178	0.11195	0.556											
		UTL (ave 95)		0.405					0.438											
		Outlier Test (raw)		3.6912	Outlier!															
		Outlier Test (log)		2.4599	None															
		UTL 95,99		0.555			UTL 95,99		0.838											

4101077

CHROMIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA501-A	MG/KG	CHROMIUM, TOTAL	20.10	20.10	5.0600	-15.0400			3.0007	1.6214	-1.3794			30	0.968	1.849	=		0.7080	9.0100
BJETA503-A	MG/KG	CHROMIUM, TOTAL	19.10	19.10	5.1900	-13.9100			2.9497	1.6467	-1.3030			29	0.935	1.518	=		0.6820	8.6800
BJETA502-A	MG/KG	CHROMIUM, TOTAL	18.80	18.80	5.7700	-13.0300			2.9339	1.7527	-1.1812			28	0.903	1.300	=		0.7060	8.9900
BJETA508-A	MG/KG	CHROMIUM, TOTAL	16.90	16.90	6.1300	-10.7700			2.8273	1.8132	-1.0141			27	0.871	1.131	=		0.6940	8.8300
BJETA505-A	MG/KG	CHROMIUM, TOTAL	16.30	16.30	6.6100	-9.6900			2.7912	1.8886	-0.9026			26	0.839	0.989	=		0.6920	8.8100
BJETA509-A	MG/KG	CHROMIUM, TOTAL	16.10	16.10	7.6300	-8.4700			2.7788	2.0321	-0.7467			25	0.806	0.865	=		0.6950	8.8500
BJETA504-A	MG/KG	CHROMIUM, TOTAL	15.20	15.20	7.6700	-7.5300			2.7213	2.0373	-0.6840			24	0.774	0.753	=		0.6940	8.8300
BJETA506-A	MG/KG	CHROMIUM, TOTAL	15.10	15.10	9.0100	-6.0900			2.7147	2.1983	-0.5164			23	0.742	0.649	=		0.6940	8.8400
BJETA510-A	MG/KG	CHROMIUM, TOTAL	13.90	13.90	9.7900	-4.1100			2.6319	2.2814	-0.3505			22	0.710	0.552	=		0.6780	8.6300
BJETA516-A	MG/KG	CHROMIUM, TOTAL	13.70	13.70	10.0000	-3.7000			2.6174	2.3026	-0.3148			21	0.677	0.460	=		0.6700	8.5300
BJETA527-A	MG/KG	CHROMIUM, TOTAL	13.10	13.10	10.1000	-3.0000			2.5726	2.3125	-0.2601			20	0.645	0.372	=		0.6820	8.6800
BJETA517-A	MG/KG	CHROMIUM, TOTAL	12.80	12.80	10.3000	-2.5000			2.5494	2.3321	-0.2173			19	0.613	0.287	=		0.6780	8.6300
BJETA521-A	MG/KG	CHROMIUM, TOTAL	12.20	12.20	10.3000	-1.9000			2.5014	2.3321	-0.1693			18	0.581	0.204	=		0.7010	8.9200
BJETA511-A	MG/KG	CHROMIUM, TOTAL	11.60	11.60	10.7000	-0.9000			2.4510	2.3702	-0.0808			17	0.548	0.122	=		0.6710	8.5400
BJETA507-A	MG/KG	CHROMIUM, TOTAL	11.40	11.40	11.2000	-0.2000			2.4336	2.4159	-0.0177			16	0.516	0.040	=		0.6590	8.3800
BJETA520-A	MG/KG	CHROMIUM, TOTAL	11.20	11.20	11.4000	0.2000	0.0076	0.0015	2.4159	2.4336	0.0177	0.0076	0.0001	15	0.484	-0.040	=		0.6570	8.3600
BJETA522-A	MG/KG	CHROMIUM, TOTAL	10.70	10.70	11.6000	0.9000	0.0227	0.0204	2.3702	2.4510	0.0808	0.0227	0.0018	14	0.452	-0.122	=		0.6630	8.4400
BJETA512-A	MG/KG	CHROMIUM, TOTAL	10.30	10.30	12.2000	1.9000	0.0381	0.0724	2.3321	2.5014	0.1693	0.0381	0.0065	13	0.419	-0.204	=		0.6840	8.7100
BJETA518-A	MG/KG	CHROMIUM, TOTAL	10.30	10.30	12.8000	2.5000	0.0537	0.1343	2.3321	2.5494	0.2173	0.0537	0.0117	12	0.387	-0.287	=		0.6620	8.4200
BJETA514-A	MG/KG	CHROMIUM, TOTAL	10.10	10.10	13.1000	3.0000	0.0697	0.2091	2.3125	2.5726	0.2601	0.0697	0.0181	11	0.355	-0.372	=		0.6630	8.4400
BJETA524-A	MG/KG	CHROMIUM, TOTAL	10.00	10.00	13.7000	3.7000	0.0862	0.3189	2.3026	2.6174	0.3148	0.0862	0.0271	10	0.323	-0.460	=		0.6830	8.7000
BJETA534-A	MG/KG	CHROMIUM, TOTAL	9.79	9.79	13.9000	4.1100	0.1036	0.4258	2.2814	2.6319	0.3505	0.1036	0.0363	9	0.290	-0.552	=		0.6550	8.3300
BJETA523-A	MG/KG	CHROMIUM, TOTAL	9.01	9.01	15.1000	6.0900	0.1219	0.7424	2.1983	2.7147	0.5164	0.1219	0.0629	8	0.258	-0.649	=		0.6760	8.6000
BJETA519-A	MG/KG	CHROMIUM, TOTAL	7.67	7.67	15.2000	7.5300	0.1415	1.0655	2.0373	2.7213	0.6840	0.1415	0.0968	7	0.226	-0.753	TR	F	0.6560	8.3400
BJETA535-A	MG/KG	CHROMIUM, TOTAL	7.63	7.63	16.1000	8.4700	0.1630	1.3806	2.0321	2.7788	0.7467	0.1630	0.1217	6	0.194	-0.865	TR	F	0.6580	8.3700
BJETA532-A	MG/KG	CHROMIUM, TOTAL	6.61	6.61	16.3000	9.6900	0.1870	1.8120	1.8886	2.7912	0.9026	0.1870	0.1688	5	0.161	-0.989	TR	F	0.6140	7.8100
BJETA533-A	MG/KG	CHROMIUM, TOTAL	6.13	6.13	16.9000	10.7700	0.2148	2.3134	1.8132	2.8273	1.0141	0.2148	0.2178	4	0.129	-1.131	TR	F	0.6270	7.9800
BJETA528-A	MG/KG	CHROMIUM, TOTAL	5.77	5.77	18.8000	13.0300	0.2487	3.2406	1.7527	2.9339	1.1812	0.2487	0.2938	3	0.097	-1.300	TR	F	0.6250	7.9500
BJETA531-A	MG/KG	CHROMIUM, TOTAL	5.19	5.19	19.1000	13.9100	0.2944	4.0951	1.6467	2.9497	1.3030	0.2944	0.3836	2	0.065	-1.518	TR	F	0.5970	7.5900
BJETA530-A	MG/KG	CHROMIUM, TOTAL	5.06	5.06	20.1000	15.0400	0.4254	6.3980	1.6214	3.0007	1.3794	0.4254	0.5868	1	0.032	-1.849	TR	F	0.5920	7.5300
							b =	22.2300				b =	2.0339							
		0	30																	
		% Non-detect	0.0%			W	0.965				W	0.952								
		Range (Raw)	5.06	20.1		W (crit)	0.927				W (crit)	0.927								
							Accept					Accept								
		Mean		11.7253					2.394											
		Std Dev		4.2031					0.387		0.927	0.952		0.965						
		UTL (min 95)		21.056	5.0600	20.1000	11.72533	4.20311	25.864											
		UTL (ave 95)		18.984					21.372											
		Outlier Test (raw)		1.9925	None															
		Outlier Test (log)		1.5685	None															
		UTL 95,99		24.604			UTL 95,99		35.855											

4101078

COBALT

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CA	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA502-A	MG/KG	COBALT	10.20	10.20	1.5400	-8.6600			2.3224	0.4318	-1.8906			30	0.968	1.849	=		1.0800	8.9900
BJETA511-A	MG/KG	COBALT	8.13	8.13	2.0200	-6.1100			2.0956	0.7031	-1.3925			29	0.935	1.518	TR	F	1.0200	8.5400
BJETA507-A	MG/KG	COBALT	7.00	7.00	2.4500	-4.5500			1.9459	0.8961	-1.0498			28	0.903	1.300	TR	F	1.0100	8.3800
BJETA522-A	MG/KG	COBALT	6.79	6.79	2.5900	-4.2000			1.9155	0.9517	-0.9638			27	0.871	1.131	TR	F	1.0100	8.4400
BJETA516-A	MG/KG	COBALT	6.77	6.77	2.6100	-4.1600			1.9125	0.9594	-0.9532			26	0.839	0.989	TR	F	1.0200	8.5300
BJETA501-A	MG/KG	COBALT	5.64	5.64	2.6600	-2.9800			1.7299	0.9783	-0.7516			25	0.806	0.865	TR	F	1.0800	9.0100
BJETA504-A	MG/KG	COBALT	5.57	5.57	3.5200	-2.0500			1.7174	1.2585	-0.4589			24	0.774	0.753	TR	F	1.0600	8.8300
BJETA517-A	MG/KG	COBALT	5.44	5.44	3.6500	-1.7900			1.6938	1.2947	-0.3991			23	0.742	0.649	TR	F	1.0400	8.6300
BJETA509-A	MG/KG	COBALT	5.38	5.38	3.9300	-1.4500			1.6827	1.3686	-0.3140			22	0.710	0.552	TR	F	1.0600	8.8500
BJETA505-A	MG/KG	COBALT	5.37	5.37	4.0100	-1.3600			1.6808	1.3888	-0.2920			21	0.677	0.460	TR	F	1.0600	8.8100
BJETA521-A	MG/KG	COBALT	5.34	5.34	4.0900	-1.2500			1.6752	1.4085	-0.2667			20	0.645	0.372	TR	F	1.0700	8.9200
BJETA534-A	MG/KG	COBALT	5.12	5.12	4.1100	-1.0100			1.6332	1.4134	-0.2197			19	0.613	0.287	TR	F	1.0000	8.3300
BJETA520-A	MG/KG	COBALT	5.11	5.11	4.4600	-0.6500			1.6312	1.4951	-0.1361			18	0.581	0.204	TR	F	1.0000	8.3600
BJETA506-A	MG/KG	COBALT	4.85	4.85	4.5300	-0.3200			1.5790	1.5107	-0.0683			17	0.548	0.122	TR	F	1.0600	8.8400
BJETA518-A	MG/KG	COBALT	4.84	4.84	4.8000	-0.0400			1.5769	1.5686	-0.0083			16	0.516	0.040	TR	F	1.0100	8.4200
BJETA512-A	MG/KG	COBALT	4.80	4.80	4.8400	0.0400	0.0076	0.0003	1.5686	1.5769	0.0083	0.0076	0.0001	15	0.484	-0.040	TR	F	1.0400	8.7100
BJETA523-A	MG/KG	COBALT	4.53	4.53	4.8500	0.3200	0.0227	0.0073	1.5107	1.5790	0.0683	0.0227	0.0015	14	0.452	-0.122	TR	F	1.0300	8.6000
BJETA527-A	MG/KG	COBALT	4.46	4.46	5.1100	0.6500	0.0381	0.0248	1.4951	1.6312	0.1361	0.0381	0.0052	13	0.419	-0.204	TR	F	1.0400	8.6800
BJETA510-A	MG/KG	COBALT	4.11	4.11	5.1200	1.0100	0.0537	0.0542	1.4134	1.6332	0.2197	0.0537	0.0118	12	0.387	-0.287	TR	F	1.0400	8.6300
BJETA503-A	MG/KG	COBALT	4.09	4.09	5.3400	1.2500	0.0697	0.0871	1.4085	1.6752	0.2667	0.0697	0.0186	11	0.355	-0.372	TR	F	1.0400	8.6800
BJETA535-A	MG/KG	COBALT	4.01	4.01	5.3700	1.3600	0.0862	0.1172	1.3888	1.6808	0.2920	0.0862	0.0252	10	0.323	-0.460	TR	F	1.0000	8.3700
BJETA508-A	MG/KG	COBALT	3.93	3.93	5.3800	1.4500	0.1036	0.1502	1.3686	1.6827	0.3140	0.1036	0.0325	9	0.290	-0.552	TR	F	1.0600	8.8300
BJETA524-A	MG/KG	COBALT	3.65	3.65	5.4400	1.7900	0.1219	0.2182	1.2947	1.6938	0.3991	0.1219	0.0486	8	0.258	-0.649	TR	F	1.0400	8.7000
BJETA514-A	MG/KG	COBALT	3.52	3.52	5.5700	2.0500	0.1415	0.2901	1.2585	1.7174	0.4589	0.1415	0.0649	7	0.226	-0.753	TR	F	1.0100	8.4400
BJETA531-A	MG/KG	COBALT	2.66	2.66	5.6400	2.9800	0.1630	0.4857	0.9783	1.7299	0.7516	0.1630	0.1225	6	0.194	-0.865	TR	F	0.9110	7.5900
BJETA530-A	MG/KG	COBALT	2.61	2.61	6.7700	4.1600	0.1870	0.7779	0.9594	1.9125	0.9532	0.1870	0.1782	5	0.161	-0.989	TR	F	0.9040	7.5300
BJETA532-A	MG/KG	COBALT	2.59	2.59	6.7900	4.2000	0.2148	0.9022	0.9517	1.9155	0.9638	0.2148	0.2070	4	0.129	-1.131	TR	F	0.9380	7.8100
BJETA528-A	MG/KG	COBALT	2.45	2.45	7.0000	4.5500	0.2487	1.1316	0.8961	1.9459	1.0498	0.2487	0.2611	3	0.097	-1.300	TR	F	0.9550	7.9500
BJETA533-A	MG/KG	COBALT	2.02	2.02	8.1300	6.1100	0.2944	1.7988	0.7031	2.0956	1.3925	0.2944	0.4099	2	0.065	-1.518	TR	F	0.9580	7.9800
BJETA519-A	MG/KG	COBALT	1.54	1.54	10.2000	8.6600	0.4254	3.6840	0.4318	2.3224	1.8906	0.4254	0.8043	1	0.032	-1.849	TR	F	1.0000	8.3400
							b =	9.7296				b =	2.1915							
		0	30																	
		% Non-detect	0.0%			W	0.953				W	0.961								
		Range (Raw)	1.54	10.2		W (crit)	0.927				W (crit)	0.927								
							Accept					Accept								
		Mean		4.7507					1.481											
		Std Dev		1.8511					0.415		0.927	0.961		0.953						
		UTL (min 95)		8.860	1.5400	10.2000	4.75067	1.85109	11.050											
		UTL (ave 95)		7.947					9.004											
		Outlier Test (raw)		2.9439	Outlier!															
		Outlier Test (log)		2.0273	None															
		UTL 95,99		10.422			UTL 95,99		15.687											

4101079

COPPER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA527-A	MG/KG	COPPER	16.70	16.70	4.4400	-12.2600			2.8154	1.4907	-1.3248			30	0.968	1.849	=		0.1740	7.4400
BJETA502-A	MG/KG	COPPER	15.60	15.60	5.5100	-10.0900			2.7473	1.7066	-1.0407			29	0.935	1.518	=		0.1800	7.7000
BJETA516-A	MG/KG	COPPER	14.90	14.90	5.6800	-9.2200			2.7014	1.7370	-0.9644			28	0.903	1.300	=		0.1710	7.3100
BJETA503-A	MG/KG	COPPER	13.50	13.50	7.1200	-6.3800			2.6027	1.9629	-0.6398			27	0.871	1.131	=		0.1740	7.4400
BJETA511-A	MG/KG	COPPER	13.10	13.10	7.2000	-5.9000			2.5726	1.9741	-0.5985			26	0.839	0.989	=		0.1710	7.3200
BJETA506-A	MG/KG	COPPER	12.90	12.90	7.4300	-5.4700			2.5572	2.0055	-0.5517			25	0.806	0.865	=		0.1770	7.5800
BJETA505-A	MG/KG	COPPER	12.60	12.60	8.1400	-4.4600			2.5337	2.0968	-0.4369			24	0.774	0.753	=		0.1760	7.5500
BJETA508-A	MG/KG	COPPER	12.50	12.50	8.4100	-4.0900			2.5257	2.1294	-0.3963			23	0.742	0.649	=		0.1770	7.5700
BJETA501-A	MG/KG	COPPER	12.30	12.30	9.5100	-2.7900			2.5096	2.2523	-0.2573			22	0.710	0.552	=		0.1800	7.7200
BJETA509-A	MG/KG	COPPER	12.30	12.30	9.9700	-2.3300			2.5096	2.2996	-0.2100			21	0.677	0.460	=		0.1770	7.5900
BJETA517-A	MG/KG	COPPER	12.10	12.10	10.2000	-1.9000			2.4932	2.3224	-0.1708			20	0.645	0.372	=		0.1730	7.4000
BJETA534-A	MG/KG	COPPER	11.90	11.90	10.3000	-1.6000			2.4765	2.3321	-0.1444			19	0.613	0.287	=		0.1670	7.1400
BJETA512-A	MG/KG	COPPER	11.80	11.80	11.0000	-0.8000			2.4681	2.3979	-0.0702			18	0.581	0.204	=		0.1740	7.4600
BJETA520-A	MG/KG	COPPER	11.70	11.70	11.3000	-0.4000			2.4596	2.4248	-0.0348			17	0.548	0.122	=		0.1670	7.1700
BJETA507-A	MG/KG	COPPER	11.60	11.60	11.4000	-0.2000			2.4510	2.4336	-0.0174			16	0.516	0.040	=		0.1680	7.1900
BJETA521-A	MG/KG	COPPER	11.40	11.40	11.6000	0.2000	0.0076	0.0015	2.4336	2.4510	0.0174	0.0076	0.0001	15	0.484	-0.040	=		0.1780	7.6400
BJETA504-A	MG/KG	COPPER	11.30	11.30	11.7000	0.4000	0.0227	0.0091	2.4248	2.4596	0.0348	0.0227	0.0008	14	0.452	-0.122	=		0.1770	7.5700
BJETA524-A	MG/KG	COPPER	11.00	11.00	11.8000	0.8000	0.0381	0.0305	2.3979	2.4681	0.0702	0.0381	0.0027	13	0.419	-0.204	=		0.1740	7.4500
BJETA510-A	MG/KG	COPPER	10.30	10.30	11.9000	1.6000	0.0537	0.0859	2.3321	2.4765	0.1444	0.0537	0.0078	12	0.387	-0.287	=		0.1730	7.4000
BJETA522-A	MG/KG	COPPER	10.20	10.20	12.1000	1.9000	0.0697	0.1324	2.3224	2.4932	0.1708	0.0697	0.0119	11	0.355	-0.372	=		0.1690	7.2400
BJETA518-A	MG/KG	COPPER	9.97	9.97	12.3000	2.3300	0.0862	0.2008	2.2996	2.5096	0.2100	0.0862	0.0181	10	0.323	-0.460	=		0.1680	7.2200
BJETA523-A	MG/KG	COPPER	9.51	9.51	12.3000	2.7900	0.1036	0.2890	2.2523	2.5096	0.2573	0.1036	0.0267	9	0.290	-0.552	=		0.1720	7.3700
BJETA514-A	MG/KG	COPPER	8.41	8.41	12.5000	4.0900	0.1219	0.4986	2.1294	2.5257	0.3963	0.1219	0.0483	8	0.258	-0.649	=		0.1690	7.2400
BJETA535-A	MG/KG	COPPER	8.14	8.14	12.6000	4.4600	0.1415	0.6311	2.0968	2.5337	0.4369	0.1415	0.0618	7	0.226	-0.753	=		0.1670	7.1800
BJETA533-A	MG/KG	COPPER	7.43	7.43	12.9000	5.4700	0.1630	0.8916	2.0055	2.5572	0.5517	0.1630	0.0899	6	0.194	-0.865	=		0.1600	6.8400
BJETA519-A	MG/KG	COPPER	7.20	7.20	13.1000	5.9000	0.1870	1.1033	1.9741	2.5726	0.5985	0.1870	0.1119	5	0.161	-0.989	=		0.1670	7.1500
BJETA532-A	MG/KG	COPPER	7.12	7.12	13.5000	6.3800	0.2148	1.3704	1.9629	2.6027	0.6398	0.2148	0.1374	4	0.129	-1.131	=		0.1560	6.7000
BJETA528-A	MG/KG	COPPER	5.68	5.68	14.9000	9.2200	0.2487	2.2930	1.7370	2.7014	0.9644	0.2487	0.2398	3	0.097	-1.300	TR	F	0.1590	6.8200
BJETA530-A	MG/KG	COPPER	5.51	5.51	15.6000	10.0900	0.2944	2.9705	1.7066	2.7473	1.0407	0.2944	0.3064	2	0.065	-1.518	TR	F	0.1510	6.4600
BJETA531-A	MG/KG	COPPER	4.44	4.44	16.7000	12.2600	0.4254	5.2154	1.4907	2.8154	1.3248	0.4254	0.5636	1	0.032	-1.849	TR	F	0.1520	6.5100
							b =	15.7232				b =	1.6272							
		0	30																	
		% Non-detect	0.0%			W	0.964				W	0.909								
		Range (Raw)	4.44	16.7		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		10.7703					2.333											
		Std Dev		2.9741					0.317		0.927	0.909		0.964						
		UTL (min 95)		17.373	4.4400	16.7000	10.77033	2.97409	20.833											
		UTL (ave 95)		15.907					17.820											
		Outlier Test (raw)		1.9938	None															
		Outlier Test (log)		1.5222	None															
		UTL 95,99		19.883			UTL 95,99		27.222											

4101080

IRON

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-A	MG/KG	IRON	15500	15500	3460.0000	-12040.0000			9.6486	8.1490	-1.4996			30	0.968	1.849	=		0.7330	8.8500
BJETA503-A	MG/KG	IRON	15200	15200	4130.0000	-11070.0000			9.6291	8.3260	-1.3030			29	0.935	1.518	=		0.7200	8.6800
BJETA502-A	MG/KG	IRON	15000	15000	4880.0000	-10120.0000			9.6158	8.4929	-1.1229			28	0.903	1.300	=		0.7450	8.9900
BJETA505-A	MG/KG	IRON	13800	13800	5020.0000	-8780.0000			9.5324	8.5212	-1.0112			27	0.871	1.131	=		0.7300	8.8100
BJETA508-A	MG/KG	IRON	13600	13600	5140.0000	-8460.0000			9.5178	8.5448	-0.9730			26	0.839	0.989	=		0.7310	8.8300
BJETA527-A	MG/KG	IRON	12900	12900	6470.0000	-6430.0000			9.4650	8.7749	-0.6901			25	0.806	0.865	=		0.7200	8.6800
BJETA506-A	MG/KG	IRON	12700	12700	7240.0000	-5460.0000			9.4494	8.8874	-0.5620			24	0.774	0.753	=		0.7320	8.8400
BJETA504-A	MG/KG	IRON	12700	12700	8060.0000	-4640.0000			9.4494	8.9947	-0.4547			23	0.742	0.649	=		0.7310	8.8300
BJETA510-A	MG/KG	IRON	12500	12500	8720.0000	-3780.0000			9.4335	9.0734	-0.3601			22	0.710	0.552	=		0.7150	8.6300
BJETA516-A	MG/KG	IRON	12400	12400	8900.0000	-3500.0000			9.4255	9.0938	-0.3316			21	0.677	0.460	=		0.7060	8.5300
BJETA501-A	MG/KG	IRON	11700	11700	9660.0000	-2040.0000			9.3673	9.1757	-0.1916			20	0.645	0.372	=		0.7460	9.0100
BJETA521-A	MG/KG	IRON	11400	11400	9800.0000	-1600.0000			9.3414	9.1901	-0.1512			19	0.613	0.287	=		0.7390	8.9200
BJETA507-A	MG/KG	IRON	11400	11400	10200.0000	-1200.0000			9.3414	9.2301	-0.1112			18	0.581	0.204	=		0.6950	8.3800
BJETA511-A	MG/KG	IRON	11200	11200	10400.0000	-800.0000			9.3237	9.2496	-0.0741			17	0.548	0.122	=		0.7070	8.5400
BJETA517-A	MG/KG	IRON	11100	11100	10800.0000	-300.0000			9.3147	9.2873	-0.0274			16	0.516	0.040	=		0.7150	8.6300
BJETA520-A	MG/KG	IRON	10800	10800	11100.0000	300.0000	0.0076	2.2800	9.2873	9.3147	0.0274	0.0076	0.0002	15	0.484	-0.040	=		0.6930	8.3600
BJETA512-A	MG/KG	IRON	10400	10400	11200.0000	800.0000	0.0227	18.1600	9.2496	9.3237	0.0741	0.0227	0.0017	14	0.452	-0.122	=		0.7210	8.7100
BJETA522-A	MG/KG	IRON	10200	10200	11400.0000	1200.0000	0.0381	45.7200	9.2301	9.3414	0.1112	0.0381	0.0042	13	0.419	-0.204	=		0.7000	8.4400
BJETA514-A	MG/KG	IRON	9800	9800	11400.0000	1600.0000	0.0537	85.9200	9.1901	9.3414	0.1512	0.0537	0.0081	12	0.387	-0.287	=		0.7000	8.4400
BJETA518-A	MG/KG	IRON	9660	9660	11700.0000	2040.0000	0.0697	142.1880	9.1757	9.3673	0.1916	0.0697	0.0134	11	0.355	-0.372	=		0.6980	8.4200
BJETA534-A	MG/KG	IRON	8900	8900	12400.0000	3500.0000	0.0862	301.7000	9.0938	9.4255	0.3316	0.0862	0.0286	10	0.323	-0.460	=		0.6900	8.3300
BJETA524-A	MG/KG	IRON	8720	8720	12500.0000	3780.0000	0.1036	391.6080	9.0734	9.4335	0.3601	0.1036	0.0373	9	0.290	-0.552	=		0.7200	8.7000
BJETA523-A	MG/KG	IRON	8060	8060	12700.0000	4640.0000	0.1219	565.6160	8.9947	9.4494	0.4547	0.1219	0.0554	8	0.258	-0.649	=		0.7130	8.6000
BJETA535-A	MG/KG	IRON	7240	7240	12700.0000	5460.0000	0.1415	772.5900	8.8874	9.4494	0.5620	0.1415	0.0795	7	0.226	-0.753	=		0.6940	8.3700
BJETA519-A	MG/KG	IRON	6470	6470	12900.0000	6430.0000	0.1630	1048.0900	8.7749	9.4650	0.6901	0.1630	0.1125	6	0.194	-0.865	=		0.6910	8.3400
BJETA533-A	MG/KG	IRON	5140	5140	13600.0000	8460.0000	0.1870	1582.0200	8.5448	9.5178	0.9730	0.1870	0.1820	5	0.161	-0.989	=		0.6610	7.9800
BJETA528-A	MG/KG	IRON	5020	5020	13800.0000	8780.0000	0.2148	1885.9440	8.5212	9.5324	1.0112	0.2148	0.2172	4	0.129	-1.131	=		0.6590	7.9500
BJETA532-A	MG/KG	IRON	4880	4880	15000.0000	10120.0000	0.2487	2516.8440	8.4929	9.6158	1.1229	0.2487	0.2793	3	0.097	-1.300	=		0.6470	7.8100
BJETA530-A	MG/KG	IRON	4130	4130	15200.0000	11070.0000	0.2944	3259.0080	8.3260	9.6291	1.3030	0.2944	0.3836	2	0.065	-1.518	=		0.6240	7.5300
BJETA531-A	MG/KG	IRON	3460	3460	15500.0000	12040.0000	0.4254	5121.8160	8.1490	9.6486	1.4996	0.4254	0.6379	1	0.032	-1.849	=		0.6290	7.5900
							b =	17739.50				b =	2.04							
		0	30																	
		% Non-detect	0.0%			W	0.946				W	0.879								
		Range (Raw)	3460.0	15500.0		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		10199.3333					9.162											
		Std Dev		3386.1125					0.404		0.927	0.879		0.946						
		UTL (min 95)		17716.503	3460.00	15500.00	10199.33	3386.11	23365.397											
		UTL (ave 95)		16047.150					19143.242											
		Outlier Test (raw)		1.5654	None															
		Outlier Test (log)		1.2048	None															
		UTL 95,99		20574.382			UTL 95,99		32866.775											

4101081

LEAD

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CA	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA532-A	MG/KG	LEAD	40.50	40.50	6.0800	-34.4200			3.7013	1.8050	-1.8963			30	0.968	1.849	=		0.1560	0.5580
BJETA502-A	MG/KG	LEAD	29.60	29.60	7.1000	-22.5000			3.3878	1.9601	-1.4277			29	0.935	1.518	=		0.1800	0.6420
BJETA503-A	MG/KG	LEAD	21.30	21.30	8.7600	-12.5400			3.0587	2.1702	-0.8885			28	0.903	1.300	=		0.1740	0.6200
BJETA518-A	MG/KG	LEAD	19.90	19.90	8.8400	-11.0600			2.9907	2.1793	-0.8114			27	0.871	1.131	=		0.1680	0.6020
BJETA508-A	MG/KG	LEAD	19.20	19.20	9.8500	-9.3500			2.9549	2.2875	-0.6674			26	0.839	0.989	=		0.1770	0.6310
BJETA521-A	MG/KG	LEAD	15.50	15.50	11.0000	-4.5000			2.7408	2.3979	-0.3429			25	0.806	0.865	=		0.1780	0.6370
BJETA524-A	MG/KG	LEAD	14.90	14.90	11.4000	-3.5000			2.7014	2.4336	-0.2677			24	0.774	0.753	=		0.1740	0.6210
BJETA528-A	MG/KG	LEAD	14.80	14.80	11.8000	-3.0000			2.6946	2.4681	-0.2265			23	0.742	0.649	=		0.1590	0.5680
BJETA501-A	MG/KG	LEAD	14.70	14.70	12.0000	-2.7000			2.6878	2.4849	-0.2029			22	0.710	0.552	=		0.1800	0.6440
BJETA509-A	MG/KG	LEAD	14.60	14.60	12.1000	-2.5000			2.6810	2.4932	-0.1878			21	0.677	0.460	=		0.1770	0.6320
BJETA510-A	MG/KG	LEAD	14.40	14.40	12.2000	-2.2000			2.6672	2.5014	-0.1658			20	0.645	0.372	=		0.1730	0.6170
BJETA522-A	MG/KG	LEAD	14.40	14.40	12.3000	-2.1000			2.6672	2.5096	-0.1576			19	0.613	0.287	=		0.1690	0.6030
BJETA533-A	MG/KG	LEAD	14.00	14.00	12.8000	-1.2000			2.6391	2.5494	-0.0896			18	0.581	0.204	=		0.1600	0.5700
BJETA511-A	MG/KG	LEAD	13.50	13.50	13.3000	-0.2000			2.6027	2.5878	-0.0149			17	0.548	0.122	=		0.1710	0.6100
BJETA534-A	MG/KG	LEAD	13.50	13.50	13.4000	-0.1000			2.6027	2.5953	-0.0074			16	0.516	0.040	=		0.1670	0.5950
BJETA527-A	MG/KG	LEAD	13.40	13.40	13.5000	0.1000	0.0076	0.0008	2.5953	2.6027	0.0074	0.0076	0.0001	15	0.484	-0.040	=		0.1740	0.6200
BJETA507-A	MG/KG	LEAD	13.30	13.30	13.5000	0.2000	0.0227	0.0045	2.5878	2.6027	0.0149	0.0227	0.0003	14	0.452	-0.122	=		0.1680	0.5990
BJETA530-A	MG/KG	LEAD	12.80	12.80	14.0000	1.2000	0.0381	0.0457	2.5494	2.6391	0.0896	0.0381	0.0034	13	0.419	-0.204	=		0.1510	0.5380
BJETA512-A	MG/KG	LEAD	12.30	12.30	14.4000	2.1000	0.0537	0.1128	2.5096	2.6672	0.1576	0.0537	0.0085	12	0.387	-0.287	=		0.1740	0.6220
BJETA506-A	MG/KG	LEAD	12.20	12.20	14.4000	2.2000	0.0697	0.1533	2.5014	2.6672	0.1658	0.0697	0.0116	11	0.355	-0.372	=		0.1770	0.6310
BJETA523-A	MG/KG	LEAD	12.10	12.10	14.6000	2.5000	0.0862	0.2155	2.4932	2.6810	0.1878	0.0862	0.0162	10	0.323	-0.460	=		0.1720	0.6140
BJETA520-A	MG/KG	LEAD	12.00	12.00	14.7000	2.7000	0.1036	0.2797	2.4849	2.6878	0.2029	0.1036	0.0210	9	0.290	-0.552	=		0.1670	0.5970
BJETA519-A	MG/KG	LEAD	11.80	11.80	14.8000	3.0000	0.1219	0.3657	2.4681	2.6946	0.2265	0.1219	0.0276	8	0.258	-0.649	=		0.1670	0.5960
BJETA514-A	MG/KG	LEAD	11.40	11.40	14.9000	3.5000	0.1415	0.4953	2.4336	2.7014	0.2677	0.1415	0.0379	7	0.226	-0.753	=		0.1690	0.6030
BJETA517-A	MG/KG	LEAD	11.00	11.00	15.5000	4.5000	0.1630	0.7335	2.3979	2.7408	0.3429	0.1630	0.0559	6	0.194	-0.865	=		0.1730	0.6170
BJETA531-A	MG/KG	LEAD	9.85	9.85	19.2000	9.3500	0.1870	1.7485	2.2875	2.9549	0.6674	0.1870	0.1248	5	0.161	-0.989	=		0.1520	0.5420
BJETA516-A	MG/KG	LEAD	8.84	8.84	19.9000	11.0600	0.2148	2.3757	2.1793	2.9907	0.8114	0.2148	0.1743	4	0.129	-1.131	=		0.1710	0.6090
BJETA504-A	MG/KG	LEAD	8.76	8.76	21.3000	12.5400	0.2487	3.1187	2.1702	3.0587	0.8885	0.2487	0.2210	3	0.097	-1.300	=		0.1760	0.6310
BJETA505-A	MG/KG	LEAD	7.10	7.10	29.6000	22.5000	0.2944	6.6240	1.9601	3.3878	1.4277	0.2944	0.4203	2	0.065	-1.518	=		0.1760	0.6290
BJETA535-A	MG/KG	LEAD	6.08	6.08	40.5000	34.4200	0.4254	14.6423	1.8050	3.7013	1.8963	0.4254	0.8067	1	0.032	-1.849	=		0.1670	0.5980
							b =	30.9159				b =	1.9295							
		0	30																	
		% Non-detect	0.0%			W	0.750				W	0.927								
		Range (Raw)	6.08	40.5		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		14.591					2.607											
		Std Dev		6.6278					0.372		0.927	0.927		0.750						
		UTL (min 95)		29.305	6.0800	40.5000	14.59100	6.62782	30.968											
		UTL (ave 95)		26.037					25.777											
		Outlier Test (raw)		3.9091	Outlier!															
		Outlier Test (log)		2.9410	Outlier!															
		UTL 95,99		34.899			UTL 95,99		42.397											

4101082

MAGNESIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA502-A	MG/KG	MAGNESIUM	2830	2830	112.0000	-2718.0000			7.9480	4.7185	-3.2295			30	0.968	1.849	=		7.1000	38.5000
BJETA527-A	MG/KG	MAGNESIUM	2740	2740	140.0000	-2600.0000			7.9157	4.9416	-2.9741			29	0.935	1.518	=		6.8600	37.2000
BJETA524-A	MG/KG	MAGNESIUM	2370	2370	202.0000	-2168.0000			7.7706	5.3083	-2.4624			28	0.903	1.300	=		6.8700	37.3000
BJETA508-A	MG/KG	MAGNESIUM	2230	2230	306.0000	-1924.0000			7.7098	5.7236	-1.9862			27	0.871	1.131	=		6.9700	37.8000
BJETA534-A	MG/KG	MAGNESIUM	2190	2190	400.0000	-1790.0000			7.6917	5.9915	-1.7002			26	0.839	0.989	=		6.5800	35.7000
BJETA516-A	MG/KG	MAGNESIUM	1940	1940	633.0000	-1307.0000			7.5704	6.4505	-1.1200			25	0.806	0.865	=		6.7400	36.5000
BJETA504-A	MG/KG	MAGNESIUM	1890	1890	738.0000	-1152.0000			7.5443	6.6039	-0.9404			24	0.774	0.753	=		6.9700	37.8000
BJETA503-A	MG/KG	MAGNESIUM	1830	1830	827.0000	-1003.0000			7.5121	6.7178	-0.7943			23	0.742	0.649	=		6.8600	37.2000
BJETA509-A	MG/KG	MAGNESIUM	1810	1810	1120.0000	-690.0000			7.5011	7.0211	-0.4800			22	0.710	0.552	=		6.9900	37.9000
BJETA535-A	MG/KG	MAGNESIUM	1730	1730	1130.0000	-600.0000			7.4559	7.0300	-0.4259			21	0.677	0.460	=		6.6100	35.9000
BJETA505-A	MG/KG	MAGNESIUM	1660	1660	1200.0000	-460.0000			7.4146	7.0901	-0.3245			20	0.645	0.372	=		6.9600	37.7000
BJETA506-A	MG/KG	MAGNESIUM	1580	1580	1210.0000	-370.0000			7.3652	7.0984	-0.2668			19	0.613	0.287	=		6.9800	37.9000
BJETA510-A	MG/KG	MAGNESIUM	1570	1570	1250.0000	-320.0000			7.3588	7.1309	-0.2279			18	0.581	0.204	=		6.8200	37.0000
BJETA511-A	MG/KG	MAGNESIUM	1480	1480	1260.0000	-220.0000			7.2998	7.1389	-0.1609			17	0.548	0.122	=		6.7400	36.6000
BJETA521-A	MG/KG	MAGNESIUM	1390	1390	1290.0000	-100.0000			7.2371	7.1624	-0.0747			16	0.516	0.040	=		7.0400	38.2000
BJETA519-A	MG/KG	MAGNESIUM	1290	1290	1390.0000	100.0000	0.0076	0.7600	7.1624	7.2371	0.0747	0.0076	0.0006	15	0.484	-0.040	=		6.5900	35.8000
BJETA520-A	MG/KG	MAGNESIUM	1260	1260	1480.0000	220.0000	0.0227	4.9940	7.1389	7.2998	0.1609	0.0227	0.0037	14	0.452	-0.122	=		6.6100	35.8000
BJETA514-A	MG/KG	MAGNESIUM	1250	1250	1570.0000	320.0000	0.0381	12.1920	7.1309	7.3588	0.2279	0.0381	0.0087	13	0.419	-0.204	=		6.6700	36.2000
BJETA518-A	MG/KG	MAGNESIUM	1210	1210	1580.0000	370.0000	0.0537	19.8690	7.0984	7.3652	0.2668	0.0537	0.0143	12	0.387	-0.287	=		6.6500	36.1000
BJETA507-A	MG/KG	MAGNESIUM	1200	1200	1660.0000	460.0000	0.0697	32.0620	7.0901	7.4146	0.3245	0.0697	0.0226	11	0.355	-0.372	=		6.6200	35.9000
BJETA512-A	MG/KG	MAGNESIUM	1130	1130	1730.0000	600.0000	0.0862	51.7200	7.0300	7.4559	0.4259	0.0862	0.0367	10	0.323	-0.460	=		6.8800	37.3000
BJETA517-A	MG/KG	MAGNESIUM	1120	1120	1810.0000	690.0000	0.1036	71.4840	7.0211	7.5011	0.4800	0.1036	0.0497	9	0.290	-0.552	=		6.8200	37.0000
BJETA501-A	MG/KG	MAGNESIUM	827	827	1830.0000	1003.0000	0.1219	122.2657	6.7178	7.5121	0.7943	0.1219	0.0968	8	0.258	-0.649	=		7.1200	38.6000
BJETA522-A	MG/KG	MAGNESIUM	738	738	1890.0000	1152.0000	0.1415	163.0080	6.6039	7.5443	0.9404	0.1415	0.1331	7	0.226	-0.753	=		6.6700	36.2000
BJETA523-A	MG/KG	MAGNESIUM	633	633	1940.0000	1307.0000	0.1630	213.0410	6.4505	7.5704	1.1200	0.1630	0.1826	6	0.194	-0.865	=		6.7900	36.9000
BJETA533-A	MG/KG	MAGNESIUM	400	400	2190.0000	1790.0000	0.1870	334.7300	5.9915	7.6917	1.7002	0.1870	0.3179	5	0.161	-0.989	=		6.3100	34.2000
BJETA532-A	MG/KG	MAGNESIUM	306	306	2230.0000	1924.0000	0.2148	413.2752	5.7236	7.7098	1.9862	0.2148	0.4266	4	0.129	-1.131	=		6.1700	33.5000
BJETA528-A	MG/KG	MAGNESIUM	202	202	2370.0000	2168.0000	0.2487	539.1816	5.3083	7.7706	2.4624	0.2487	0.6124	3	0.097	-1.300	=		6.2800	34.1000
BJETA530-A	MG/KG	MAGNESIUM	140	140	2740.0000	2600.0000	0.2944	765.4400	4.9416	7.9157	2.9741	0.2944	0.8756	2	0.065	-1.518	=		5.9500	32.3000
BJETA531-A	MG/KG	MAGNESIUM	112	112	2830.0000	2718.0000	0.4254	1156.2372	4.7185	7.9480	3.2295	0.4254	1.3738	1	0.032	-1.849	=		6.0000	32.5000
							b =	3900.26				b =	4.16							
		0	30																	
		% Non-detect	0.0%			W	0.968				W	0.830								
		Range (Raw)	112.0	2830.0		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		1368.6					6.981											
		Std Dev		735.9926					0.847		0.927	0.830		0.968						
		UTL (min 95)		3002.504	112.00	2830.00	1368.60	735.99	7049.295											
		UTL (ave 95)		2639.659					4643.397											
		Outlier Test (raw)		1.9856	None															
		Outlier Test (log)		1.1423	None															
		UTL 95,99		3623.681			UTL 95,99		14406											

4101083

MANGANESE

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA502-A	MG/KG	MANGANESE	1420	1420	132.0000	-1288.0000			7.2584	4.8828	-2.3756			30	0.968	1.849	=		0.1540	2.5700
BJETA516-A	MG/KG	MANGANESE	691	691	157.0000	-534.0000			6.5381	5.0562	-1.4819			29	0.935	1.518	=		0.1460	2.4400
BJETA511-A	MG/KG	MANGANESE	559	559	158.0000	-401.0000			6.3261	5.0626	-1.2636			28	0.903	1.300	=		0.1460	2.4400
BJETA501-A	MG/KG	MANGANESE	509	509	163.0000	-346.0000			6.2324	5.0938	-1.1387			27	0.871	1.131	=		0.1540	2.5700
BJETA507-A	MG/KG	MANGANESE	419	419	195.0000	-224.0000			6.0379	5.2730	-0.7649			26	0.839	0.989	=		0.1440	2.4000
BJETA505-A	MG/KG	MANGANESE	374	374	208.0000	-166.0000			5.9243	5.3375	-0.5867			25	0.806	0.865	=		0.1510	2.5200
BJETA506-A	MG/KG	MANGANESE	357	357	217.0000	-140.0000			5.8777	5.3799	-0.4978			24	0.774	0.753	=		0.1520	2.5300
BJETA522-A	MG/KG	MANGANESE	347	347	225.0000	-122.0000			5.8493	5.4161	-0.4332			23	0.742	0.649	=		0.1450	2.4100
BJETA517-A	MG/KG	MANGANESE	341	341	235.0000	-106.0000			5.8319	5.4596	-0.3723			22	0.710	0.552	=		0.1480	2.4700
BJETA527-A	MG/KG	MANGANESE	335	335	235.0000	-100.0000			5.8141	5.4596	-0.3545			21	0.677	0.460	=		0.1490	2.4800
BJETA504-A	MG/KG	MANGANESE	321	321	258.0000	-63.0000			5.7714	5.5530	-0.2185			20	0.645	0.372	=		0.1510	2.5200
BJETA503-A	MG/KG	MANGANESE	314	314	260.0000	-54.0000			5.7494	5.5607	-0.1887			19	0.613	0.287	=		0.1490	2.4800
BJETA523-A	MG/KG	MANGANESE	308	308	261.0000	-47.0000			5.7301	5.5645	-0.1656			18	0.581	0.204	=		0.1470	2.4600
BJETA520-A	MG/KG	MANGANESE	289	289	269.0000	-20.0000			5.6664	5.5947	-0.0717			17	0.548	0.122	=		0.1430	2.3900
BJETA518-A	MG/KG	MANGANESE	277	277	270.0000	-7.0000			5.6240	5.5984	-0.0256			16	0.516	0.040	=		0.1440	2.4100
BJETA509-A	MG/KG	MANGANESE	270	270	277.0000	7.0000	0.0076	0.0532	5.5984	5.6240	0.0256	0.0076	0.0002	15	0.484	-0.040	=		0.1520	2.5300
BJETA535-A	MG/KG	MANGANESE	269	269	289.0000	20.0000	0.0227	0.4540	5.5947	5.6664	0.0717	0.0227	0.0016	14	0.452	-0.122	=		0.1440	2.3900
BJETA524-A	MG/KG	MANGANESE	261	261	308.0000	47.0000	0.0381	1.7907	5.5645	5.7301	0.1656	0.0381	0.0063	13	0.419	-0.204	=		0.1490	2.4800
BJETA532-A	MG/KG	MANGANESE	260	260	314.0000	54.0000	0.0537	2.8998	5.5607	5.7494	0.1887	0.0537	0.0101	12	0.387	-0.287	=		0.1340	2.2300
BJETA531-A	MG/KG	MANGANESE	258	258	321.0000	63.0000	0.0697	4.3911	5.5530	5.7714	0.2185	0.0697	0.0152	11	0.355	-0.372	=		0.1300	2.1700
BJETA508-A	MG/KG	MANGANESE	235	235	335.0000	100.0000	0.0862	8.6200	5.4596	5.8141	0.3545	0.0862	0.0306	10	0.323	-0.460	=		0.1510	2.5200
BJETA534-A	MG/KG	MANGANESE	235	235	341.0000	106.0000	0.1036	10.9816	5.4596	5.8319	0.3723	0.1036	0.0386	9	0.290	-0.552	=		0.1430	2.3800
BJETA521-A	MG/KG	MANGANESE	225	225	347.0000	122.0000	0.1219	14.8718	5.4161	5.8493	0.4332	0.1219	0.0528	8	0.258	-0.649	=		0.1530	2.5500
BJETA530-A	MG/KG	MANGANESE	217	217	357.0000	140.0000	0.1415	19.8100	5.3799	5.8777	0.4978	0.1415	0.0704	7	0.226	-0.753	=		0.1290	2.1500
BJETA510-A	MG/KG	MANGANESE	208	208	374.0000	166.0000	0.1630	27.0580	5.3375	5.9243	0.5867	0.1630	0.0956	6	0.194	-0.865	=		0.1480	2.4700
BJETA514-A	MG/KG	MANGANESE	195	195	419.0000	224.0000	0.1870	41.8880	5.2730	6.0379	0.7649	0.1870	0.1430	5	0.161	-0.989	=		0.1450	2.4100
BJETA512-A	MG/KG	MANGANESE	163	163	509.0000	346.0000	0.2148	74.3208	5.0938	6.2324	1.1387	0.2148	0.2446	4	0.129	-1.131	=		0.1490	2.4900
BJETA519-A	MG/KG	MANGANESE	158	158	559.0000	401.0000	0.2487	99.7287	5.0626	6.3261	1.2636	0.2487	0.3142	3	0.097	-1.300	=		0.1430	2.3800
BJETA533-A	MG/KG	MANGANESE	157	157	691.0000	534.0000	0.2944	157.2096	5.0562	6.5381	1.4819	0.2944	0.4363	2	0.065	-1.518	=		0.1370	2.2800
BJETA528-A	MG/KG	MANGANESE	132	132	1420.0000	1288.0000	0.4254	547.9152	4.8828	7.2584	2.3756	0.4254	1.0106	1	0.032	-1.849	=		0.1360	2.2700
							b =	1011.99				b =	2.47							
		0	30																	
		% Non-detect	0.0%			W	0.624				W	0.923								
		Range (Raw)	132.0	1420.0		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		336.8					5.684											
		Std Dev		237.9201					0.478		0.927	0.923		0.624						
		UTL (min 95)		864.983	132.00	1420.00	336.80	237.92	849.128											
		UTL (ave 95)		747.688					671.019											
		Outlier Test (raw)		4.5528	Outlier!															
		Outlier Test (log)		3.2968	Outlier!															
		UTL 95,99		1065.787			UTL 95,99		1270.580											

4101081

MERCURY

LOCATION	SAMPLE_ID	METHOD	UNITS	NAME	VALUE	CALC	PVQ	LABQ	DETECT	PQUANT
BJETA510	BJETA510-A	SW7471	MG/KG	MERCURY	0.1400	0.1400	=		0.0360	0.1200
BJETA535	BJETA535-A	SW7471	MG/KG	MERCURY	0.0730	0.0730	TR	F	0.0350	0.1200
BJETA501	BJETA501-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA502	BJETA502-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA504	BJETA504-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA506	BJETA506-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA508	BJETA508-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA509	BJETA509-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA521	BJETA521-A	SW7471	MG/KG	MERCURY	0.0000	0.0185	ND	U	0.0370	0.1300
BJETA503	BJETA503-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1200
BJETA505	BJETA505-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1300
BJETA512	BJETA512-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1200
BJETA517	BJETA517-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1200
BJETA523	BJETA523-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1200
BJETA524	BJETA524-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1200
BJETA527	BJETA527-A	SW7471	MG/KG	MERCURY	0.0000	0.0180	ND	U	0.0360	0.1200
BJETA507	BJETA507-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA511	BJETA511-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA514	BJETA514-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA516	BJETA516-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA518	BJETA518-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA519	BJETA519-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA520	BJETA520-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA522	BJETA522-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA534	BJETA534-A	SW7471	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA528	BJETA528-A	SW7471	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA533	BJETA533-A	SW7471	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA532	BJETA532-A	SW7471	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA530	BJETA530-A	SW7471	MG/KG	MERCURY	0.0000	0.0155	ND	U	0.0310	0.1100
BJETA531	BJETA531-A	SW7471	MG/KG	MERCURY	0.0000	0.0155	ND	U	0.0310	0.1100
				28	30					
				% Non-detect	93.3%					
				Range (Raw)	0.0155	0.14				
				Mean		0.0235				
				Std Dev		0.0242				

4101085

MOLYBDENUM

LOCATION	SAMPLE_ID	METHOD	UNITS	NAME	VALUE	CALC	PVQ	LABQ	DETECT	PQUANT
BJETA524	BJETA524-A	SW6010	MG/KG	MOLYBDENUM	1.4600	1.4600	TR	F	0.7580	9.9400
BJETA519	BJETA519-A	SW6010	MG/KG	MOLYBDENUM	1.4300	1.4300	TR	F	0.7270	9.5400
BJETA517	BJETA517-A	SW6010	MG/KG	MOLYBDENUM	1.0500	1.0500	TR	F	0.7520	9.8600
BJETA532	BJETA532-A	SW6010	MG/KG	MOLYBDENUM	0.9410	0.9410	TR	F	0.6810	8.9300
BJETA531	BJETA531-A	SW6010	MG/KG	MOLYBDENUM	0.8120	0.8120	TR	F	0.6620	8.6800
BJETA528	BJETA528-A	SW6010	MG/KG	MOLYBDENUM	0.7190	0.7190	TR	F	0.6930	9.0900
BJETA501	BJETA501-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3925	ND	U	0.7850	10.3000
BJETA502	BJETA502-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3915	ND	U	0.7830	10.3000
BJETA521	BJETA521-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3885	ND	U	0.7770	10.2000
BJETA509	BJETA509-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3855	ND	U	0.7710	10.1000
BJETA506	BJETA506-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3850	ND	U	0.7700	10.1000
BJETA504	BJETA504-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3845	ND	U	0.7690	10.1000
BJETA508	BJETA508-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3845	ND	U	0.7690	10.1000
BJETA505	BJETA505-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3835	ND	U	0.7670	10.1000
BJETA512	BJETA512-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3795	ND	U	0.7590	9.9500
BJETA503	BJETA503-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3785	ND	U	0.7570	9.9300
BJETA527	BJETA527-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3785	ND	U	0.7570	9.9300
BJETA510	BJETA510-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3760	ND	U	0.7520	9.8600
BJETA523	BJETA523-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3745	ND	U	0.7490	9.8300
BJETA511	BJETA511-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3720	ND	U	0.7440	9.7600
BJETA516	BJETA516-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3715	ND	U	0.7430	9.7400
BJETA514	BJETA514-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3680	ND	U	0.7360	9.6500
BJETA522	BJETA522-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3680	ND	U	0.7360	9.6500
BJETA518	BJETA518-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3670	ND	U	0.7340	9.6300
BJETA507	BJETA507-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3655	ND	U	0.7310	9.5800
BJETA535	BJETA535-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3650	ND	U	0.7300	9.5700
BJETA520	BJETA520-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3645	ND	U	0.7290	9.5600
BJETA534	BJETA534-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3630	ND	U	0.7260	9.5200
BJETA533	BJETA533-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3480	ND	U	0.6960	9.1200
BJETA530	BJETA530-A	SW6010	MG/KG	MOLYBDENUM	0.0000	0.3285	ND	U	0.6570	8.6100
				24	30					
				% Non-detect	80.0%					
				Range (Raw)	0.3285	1.46				
				Mean		0.5125				
				Std Dev		0.3114				

4101086

NICKEL

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA502-A	MG/KG	NICKEL	14.60	14.60	3.7400	-10.8600			2.6810	1.3191	-1.3619			30	0.968	1.849	=		2.5700	12.8000
BJETA509-A	MG/KG	NICKEL	14.30	14.30	3.7800	-10.5200			2.6603	1.3297	-1.3305			29	0.935	1.518	=		1.0100	5.0600
BJETA511-A	MG/KG	NICKEL	14.30	14.30	4.2400	-10.0600			2.6603	1.4446	-1.2157			28	0.903	1.300	=		0.9760	4.8800
BJETA507-A	MG/KG	NICKEL	13.30	13.30	4.4100	-8.8900			2.5878	1.4839	-1.1039			27	0.871	1.131	=		0.4790	2.4000
BJETA508-A	MG/KG	NICKEL	12.20	12.20	5.2100	-6.9900			2.5014	1.6506	-0.8509			26	0.839	0.989	=		1.0100	5.0400
BJETA510-A	MG/KG	NICKEL	12.20	12.20	6.2300	-5.9700			2.5014	1.8294	-0.6721			25	0.806	0.865	=		0.9860	4.9300
BJETA501-A	MG/KG	NICKEL	12.20	12.20	7.0300	-5.1700			2.5014	1.9502	-0.5512			24	0.774	0.753	=		0.5100	2.5700
BJETA505-A	MG/KG	NICKEL	12.00	12.00	7.1000	-4.9000			2.4849	1.9601	-0.5248			23	0.742	0.649	=		1.0100	5.0300
BJETA503-A	MG/KG	NICKEL	11.90	11.90	7.4400	-4.4600			2.4765	2.0069	-0.4697			22	0.710	0.552	=		0.9900	4.9600
BJETA514-A	MG/KG	NICKEL	11.90	11.90	8.2600	-3.6400			2.4765	2.1114	-0.3651			21	0.677	0.460	=		0.9650	4.8300
BJETA520-A	MG/KG	NICKEL	11.90	11.90	8.7900	-3.1100			2.4765	2.1736	-0.3029			20	0.645	0.372	=		0.9560	4.7800
BJETA506-A	MG/KG	NICKEL	11.40	11.40	9.3500	-2.0500			2.4336	2.2354	-0.1982			19	0.613	0.287	=		0.5100	2.5300
BJETA521-A	MG/KG	NICKEL	11.30	11.30	10.1000	-1.2000			2.4248	2.3125	-0.1123			18	0.581	0.204	=		1.0200	5.1000
BJETA512-A	MG/KG	NICKEL	11.20	11.20	10.4000	-0.8000			2.4159	2.3418	-0.0741			17	0.548	0.122	=		0.9950	4.9800
BJETA517-A	MG/KG	NICKEL	11.00	11.00	10.6000	-0.4000			2.3979	2.3609	-0.0370			16	0.516	0.040	=		0.4930	2.4700
BJETA516-A	MG/KG	NICKEL	10.60	10.60	11.0000	0.4000	0.0076	0.0030	2.3609	2.3979	0.0370	0.0076	0.0003	15	0.484	-0.040	=		0.4870	2.4400
BJETA524-A	MG/KG	NICKEL	10.40	10.40	11.2000	0.8000	0.0227	0.0182	2.3418	2.4159	0.0741	0.0227	0.0017	14	0.452	-0.122	=		0.9940	4.9700
BJETA504-A	MG/KG	NICKEL	10.10	10.10	11.3000	1.2000	0.0381	0.0457	2.3125	2.4248	0.1123	0.0381	0.0043	13	0.419	-0.204	=		1.0100	5.0400
BJETA527-A	MG/KG	NICKEL	9.35	9.35	11.4000	2.0500	0.0537	0.1101	2.2354	2.4336	0.1982	0.0537	0.0106	12	0.387	-0.287	=		1.2400	6.2000
BJETA534-A	MG/KG	NICKEL	8.79	8.79	11.9000	3.1100	0.0697	0.2168	2.1736	2.4765	0.3029	0.0697	0.0211	11	0.355	-0.372	=		1.1900	5.9500
BJETA522-A	MG/KG	NICKEL	8.26	8.26	11.9000	3.6400	0.0862	0.3138	2.1114	2.4765	0.3651	0.0862	0.0315	10	0.323	-0.460	=		0.9650	4.8300
BJETA523-A	MG/KG	NICKEL	7.44	7.44	11.9000	4.4600	0.1036	0.4621	2.0069	2.4765	0.4697	0.1036	0.0487	9	0.290	-0.552	=		0.9830	4.9100
BJETA518-A	MG/KG	NICKEL	7.10	7.10	12.0000	4.9000	0.1219	0.5973	1.9601	2.4849	0.5248	0.1219	0.0640	8	0.258	-0.649	=		0.9630	4.8100
BJETA535-A	MG/KG	NICKEL	7.03	7.03	12.2000	5.1700	0.1415	0.7316	1.9502	2.5014	0.5512	0.1415	0.0780	7	0.226	-0.753	=		1.2000	5.9800
BJETA519-A	MG/KG	NICKEL	6.23	6.23	12.2000	5.9700	0.1630	0.9731	1.8294	2.5014	0.6721	0.1630	0.1095	6	0.194	-0.865	=		0.9540	4.7700
BJETA532-A	MG/KG	NICKEL	5.21	5.21	12.2000	6.9900	0.1870	1.3071	1.6506	2.5014	0.8509	0.1870	0.1591	5	0.161	-0.989	TR	F	1.1200	5.5800
BJETA533-A	MG/KG	NICKEL	4.41	4.41	13.3000	8.8900	0.2148	1.9096	1.4839	2.5878	1.1039	0.2148	0.2371	4	0.129	-1.131	TR	F	1.1400	5.7000
BJETA530-A	MG/KG	NICKEL	4.24	4.24	14.3000	10.0600	0.2487	2.5019	1.4446	2.6603	1.2157	0.2487	0.3023	3	0.097	-1.300	TR	F	1.0800	5.3800
BJETA528-A	MG/KG	NICKEL	3.78	3.78	14.3000	10.5200	0.2944	3.0971	1.3297	2.6603	1.3305	0.2944	0.3917	2	0.065	-1.518	TR	F	1.1400	5.6800
BJETA531-A	MG/KG	NICKEL	3.74	3.74	14.6000	10.8600	0.4254	4.6198	1.3191	2.6810	1.3619	0.4254	0.5794	1	0.032	-1.849	TR	F	1.0800	5.4200
							b =	16.9071				b =	2.0393							
		0	30																	
		% Non-detect	0.0%			W	0.918				W	0.856								
		Range (Raw)	3.74	14.6		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		9.746					2.206											
		Std Dev		3.2759					0.409		0.927	0.856		0.918						
		UTL (min 95)		17.019	3.7400	14.6000	9.74600	3.27594	22.537											
		UTL (ave 95)		15.404					18.418											
		Outlier Test (raw)		1.4817	None															
		Outlier Test (log)		1.1595	None															
		UTL 95,99		19.783			UTL 95,99		31.839											

4101087

POTASSIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA527-A	MG/KG	POTASSIUM	2790	2790	434.0000	-2356.0000			7.9338	6.0730	-1.8608			30	0.968	1.849	=		64.8000	620.0000
BJETA506-A	MG/KG	POTASSIUM	2040	2040	452.0000	-1588.0000			7.6207	6.1137	-1.5070			29	0.935	1.518	=		66.0000	631.0000
BJETA502-A	MG/KG	POTASSIUM	1750	1750	674.0000	-1076.0000			7.4674	6.5132	-0.9541			28	0.903	1.300	=		67.1000	642.0000
BJETA505-A	MG/KG	POTASSIUM	1720	1720	686.0000	-1034.0000			7.4501	6.5309	-0.9192			27	0.871	1.131	=		65.7000	629.0000
BJETA504-A	MG/KG	POTASSIUM	1700	1700	817.0000	-883.0000			7.4384	6.7056	-0.7327			26	0.839	0.989	=		65.9000	631.0000
BJETA517-A	MG/KG	POTASSIUM	1610	1610	820.0000	-790.0000			7.3840	6.7093	-0.6747			25	0.806	0.865	=		64.4000	617.0000
BJETA503-A	MG/KG	POTASSIUM	1590	1590	857.0000	-733.0000			7.3715	6.7534	-0.6181			24	0.774	0.753	=		64.8000	620.0000
BJETA508-A	MG/KG	POTASSIUM	1580	1580	932.0000	-648.0000			7.3652	6.8373	-0.5278			23	0.742	0.649	=		65.9000	631.0000
BJETA524-A	MG/KG	POTASSIUM	1510	1510	956.0000	-554.0000			7.3199	6.8628	-0.4571			22	0.710	0.552	=		64.9000	621.0000
BJETA516-A	MG/KG	POTASSIUM	1440	1440	968.0000	-472.0000			7.2724	6.8752	-0.3972			21	0.677	0.460	=		63.6000	609.0000
BJETA518-A	MG/KG	POTASSIUM	1360	1360	1110.0000	-250.0000			7.2152	7.0121	-0.2031			20	0.645	0.372	=		62.9000	602.0000
BJETA521-A	MG/KG	POTASSIUM	1310	1310	1110.0000	-200.0000			7.1778	7.0121	-0.1657			19	0.613	0.287	=		66.5000	637.0000
BJETA512-A	MG/KG	POTASSIUM	1270	1270	1180.0000	-90.0000			7.1468	7.0733	-0.0735			18	0.581	0.204	=		65.0000	622.0000
BJETA501-A	MG/KG	POTASSIUM	1250	1250	1210.0000	-40.0000			7.1309	7.0984	-0.0325			17	0.548	0.122	=		67.2000	644.0000
BJETA510-A	MG/KG	POTASSIUM	1230	1230	1220.0000	-10.0000			7.1148	7.1066	-0.0082			16	0.516	0.040	=		64.4000	617.0000
BJETA534-A	MG/KG	POTASSIUM	1220	1220	1230.0000	10.0000	0.0076	0.0760	7.1066	7.1148	0.0082	0.0076	0.0001	15	0.484	-0.040	=		62.2000	595.0000
BJETA535-A	MG/KG	POTASSIUM	1210	1210	1250.0000	40.0000	0.0227	0.9080	7.0984	7.1309	0.0325	0.0227	0.0007	14	0.452	-0.122	=		62.5000	598.0000
BJETA511-A	MG/KG	POTASSIUM	1180	1180	1270.0000	90.0000	0.0381	3.4290	7.0733	7.1468	0.0735	0.0381	0.0028	13	0.419	-0.204	=		63.7000	610.0000
BJETA509-A	MG/KG	POTASSIUM	1110	1110	1310.0000	200.0000	0.0537	10.7400	7.0121	7.1778	0.1657	0.0537	0.0089	12	0.387	-0.287	=		66.0000	632.0000
BJETA520-A	MG/KG	POTASSIUM	1110	1110	1360.0000	250.0000	0.0697	17.4250	7.0121	7.2152	0.2031	0.0697	0.0142	11	0.355	-0.372	=		62.4000	597.0000
BJETA514-A	MG/KG	POTASSIUM	968	968	1440.0000	472.0000	0.0862	40.6864	6.8752	7.2724	0.3972	0.0862	0.0342	10	0.323	-0.460	=		63.0000	603.0000
BJETA519-A	MG/KG	POTASSIUM	956	956	1510.0000	554.0000	0.1036	57.3944	6.8628	7.3199	0.4571	0.1036	0.0474	9	0.290	-0.552	=		62.3000	596.0000
BJETA522-A	MG/KG	POTASSIUM	932	932	1580.0000	648.0000	0.1219	78.9912	6.8373	7.3652	0.5278	0.1219	0.0643	8	0.258	-0.649	=		63.0000	603.0000
BJETA523-A	MG/KG	POTASSIUM	857	857	1590.0000	733.0000	0.1415	103.7195	6.7534	7.3715	0.6181	0.1415	0.0875	7	0.226	-0.753	=		64.2000	614.0000
BJETA507-A	MG/KG	POTASSIUM	820	820	1610.0000	790.0000	0.1630	128.7700	6.7093	7.3840	0.6747	0.1630	0.1100	6	0.194	-0.865	=		62.6000	599.0000
BJETA532-A	MG/KG	POTASSIUM	817	817	1700.0000	883.0000	0.1870	165.1210	6.7056	7.4384	0.7327	0.1870	0.1370	5	0.161	-0.989	=		58.3000	558.0000
BJETA528-A	MG/KG	POTASSIUM	686	686	1720.0000	1034.0000	0.2148	222.1032	6.5309	7.4501	0.9192	0.2148	0.1974	4	0.129	-1.131	=		59.4000	568.0000
BJETA533-A	MG/KG	POTASSIUM	674	674	1750.0000	1076.0000	0.2487	267.6012	6.5132	7.4674	0.9541	0.2487	0.2373	3	0.097	-1.300	=		59.6000	570.0000
BJETA531-A	MG/KG	POTASSIUM	452	452	2040.0000	1588.0000	0.2944	467.5072	6.1137	7.6207	1.5070	0.2944	0.4437	2	0.065	-1.518	TR	F	56.7000	542.0000
BJETA530-A	MG/KG	POTASSIUM	434	434	2790.0000	2356.0000	0.4254	1002.2424	6.0730	7.9338	1.8608	0.4254	0.7916	1	0.032	-1.849	TR	F	56.2000	538.0000
							b =	2566.71				b =	2.18							
		0	30																	
		% Non-detect	0.0%			W	0.950				W	0.963								
		Range (Raw)	434.0	2790.0		W (crit)	0.927				W (crit)	0.927								
							Accept					Accept								
		Mean		1252.5333					7.056											
		Std Dev		489.0618					0.412		0.927	0.963		0.950						
		UTL (min 95)		2338.250	434.00	2790.00	1252.53	489.06	2895.152											
		UTL (ave 95)		2097.143					2362.995											
		Outlier Test (raw)		3.1437	Outlier!															
		Outlier Test (log)		2.1302	None															
		UTL 95,99		2751.019			UTL 95,99		4099.032											

4101083

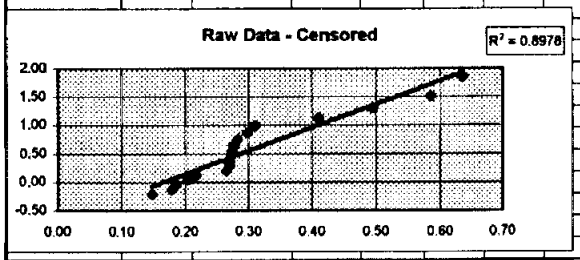
SELENIUM

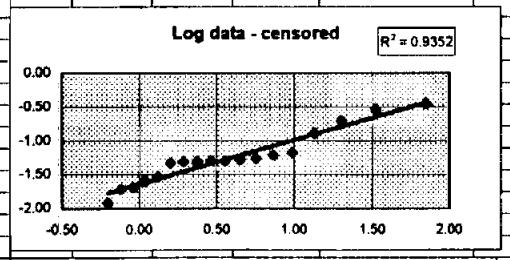
SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA521-A	MG/KG	SELENIUM	0.6370	0.6370	0.0590	-0.5780			-0.4510	-2.8302	-2.3792			30	0.968	1.849	=		0.1400	0.6370
BJETA520-A	MG/KG	SELENIUM	0.5850	0.5850	0.0595	-0.5255			-0.5361	-2.8218	-2.2856			29	0.935	1.518	TR	F	0.1310	0.5970
BJETA522-A	MG/KG	SELENIUM	0.4950	0.4950	0.0615	-0.4335			-0.7032	-2.7887	-2.0855			28	0.903	1.300	TR	F	0.1330	0.6030
BJETA502-A	MG/KG	SELENIUM	0.4100	0.4100	0.0625	-0.3475			-0.8916	-2.7726	-1.8810			27	0.871	1.131	TR	F	0.1400	0.6400
BJETA503-A	MG/KG	SELENIUM	0.3100	0.3100	0.0625	-0.2475			-1.1712	-2.7726	-1.6014			26	0.839	0.989	TR	F	0.1400	0.6200
BJETA524-A	MG/KG	SELENIUM	0.2980	0.2980	0.0655	-0.2325			-1.2107	-2.7257	-1.5150			25	0.806	0.865	TR	F	0.1370	0.6210
BJETA523-A	MG/KG	SELENIUM	0.2830	0.2830	0.0660	-0.2170			-1.2623	-2.7181	-1.4558			24	0.774	0.753	TR	F	0.1350	0.6140
BJETA518-A	MG/KG	SELENIUM	0.2770	0.2770	0.0670	-0.2100			-1.2837	-2.7031	-1.4193			23	0.742	0.649	TR	F	0.1320	0.6020
BJETA512-A	MG/KG	SELENIUM	0.2740	0.2740	0.0670	-0.2070			-1.2946	-2.7031	-1.4084			22	0.710	0.552	TR	F	0.1370	0.6220
BJETA527-A	MG/KG	SELENIUM	0.2730	0.2730	0.0695	-0.2035			-1.2983	-2.6664	-1.3681			21	0.677	0.460	TR	F	0.1360	0.6200
BJETA501-A	MG/KG	SELENIUM	0.2700	0.2700	0.0700	-0.2000			-1.3093	-2.6593	-1.3499			20	0.645	0.372	TR	F	0.1400	0.6400
BJETA504-A	MG/KG	SELENIUM	0.2700	0.2700	0.0700	-0.2000			-1.3093	-2.6593	-1.3499			19	0.613	0.287	TR	F	0.1400	0.6300
BJETA508-A	MG/KG	SELENIUM	0.2650	0.2650	0.1480	-0.1170			-1.3280	-1.9105	-0.5825			18	0.581	0.204	TR	F	0.1390	0.6310
BJETA514-A	MG/KG	SELENIUM	0.2170	0.2170	0.1790	-0.0380			-1.5279	-1.7204	-0.1925			17	0.548	0.122	TR	F	0.1330	0.6030
BJETA507-A	MG/KG	SELENIUM	0.2040	0.2040	0.1850	-0.0190			-1.5896	-1.6874	-0.0978			16	0.516	0.040	TR	F	0.1320	0.5990
BJETA510-A	MG/KG	SELENIUM	0.1850	0.1850	0.2040	0.0190	0.0076	0.0001	-1.6874	-1.5896	0.0978	0.0076	0.0007	15	0.484	-0.040	TR	F	0.1360	0.6170
BJETA519-A	MG/KG	SELENIUM	0.1790	0.1790	0.2170	0.0380	0.0227	0.0009	-1.7204	-1.5279	0.1925	0.0227	0.0044	14	0.452	-0.122	TR	F	0.1310	0.5960
BJETA517-A	MG/KG	SELENIUM	0.1480	0.1480	0.2650	0.1170	0.0381	0.0045	-1.9105	-1.3280	0.5825	0.0381	0.0222	13	0.419	-0.204	TR	F	0.1360	0.6170
BJETA505-A	MG/KG	SELENIUM	0.0000	0.0700	0.2700	0.2000	0.0537	0.0107	-2.6593	-1.3093	1.3499	0.0537	0.0725	12	0.387	-0.287	ND	U	0.1400	0.6300
BJETA506-A	MG/KG	SELENIUM	0.0000	0.0700	0.2700	0.2000	0.0697	0.0139	-2.6593	-1.3093	1.3499	0.0697	0.0941	11	0.355	-0.372	ND	U	0.1400	0.6300
BJETA509-A	MG/KG	SELENIUM	0.0000	0.0695	0.2730	0.2035	0.0862	0.0175	-2.6664	-1.2983	1.3681	0.0862	0.1179	10	0.323	-0.460	ND	U	0.1390	0.6320
BJETA511-A	MG/KG	SELENIUM	0.0000	0.0670	0.2740	0.2070	0.1036	0.0214	-2.7031	-1.2946	1.4084	0.1036	0.1459	9	0.290	-0.552	ND	U	0.1340	0.6100
BJETA516-A	MG/KG	SELENIUM	0.0000	0.0670	0.2770	0.2100	0.1219	0.0256	-2.7031	-1.2837	1.4193	0.1219	0.1730	8	0.258	-0.649	ND	U	0.1340	0.6090
BJETA535-A	MG/KG	SELENIUM	0.0000	0.0660	0.2830	0.2170	0.1415	0.0307	-2.7181	-1.2623	1.4558	0.1415	0.2060	7	0.226	-0.753	ND	U	0.1320	0.5980
BJETA534-A	MG/KG	SELENIUM	0.0000	0.0655	0.2980	0.2325	0.1630	0.0379	-2.7257	-1.2107	1.5150	0.1630	0.2470	6	0.194	-0.865	ND	U	0.1310	0.5950
BJETA528-A	MG/KG	SELENIUM	0.0000	0.0625	0.3100	0.2475	0.1870	0.0463	-2.7726	-1.1712	1.6014	0.1870	0.2995	5	0.161	-0.989	ND	U	0.1250	0.5680
BJETA533-A	MG/KG	SELENIUM	0.0000	0.0625	0.4100	0.3475	0.2148	0.0746	-2.7726	-0.8916	1.8810	0.2148	0.4040	4	0.129	-1.131	ND	U	0.1250	0.5700
BJETA532-A	MG/KG	SELENIUM	0.0000	0.0615	0.4950	0.4335	0.2487	0.1078	-2.7887	-0.7032	2.0855	0.2487	0.5187	3	0.097	-1.300	ND	U	0.1230	0.5580
BJETA531-A	MG/KG	SELENIUM	0.0000	0.0595	0.5850	0.5255	0.2944	0.1547	-2.8218	-0.5361	2.2856	0.2944	0.6729	2	0.065	-1.518	ND	U	0.1190	0.5420
BJETA530-A	MG/KG	SELENIUM	0.0000	0.0590	0.6370	0.5780	0.4254	0.2459	-2.8302	-0.4510	2.3792	0.4254	1.0121	1	0.032	-1.849	ND	U	0.1180	0.5380
							b =	0.7927				b =	3.9909						1.5600	
		12	30																0.130	
		% Non-detect	40.0%			W	0.840				W	0.857								
		Range (Raw)	0.059	0.637		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		0.212					-1.844											
		Std Dev		0.1606					0.800		0.927	0.857		0.840						
		UTL (min 95)		0.569	0.0590	0.6370	0.21200	0.16059	0.936											
		UTL (ave 95)		0.489					0.631											
		Outlier Test (raw)		2.6465	None															
		Outlier Test (log)		1.7397	None															
		UTL 95,99		0.704			UTL 95,99		1.839											

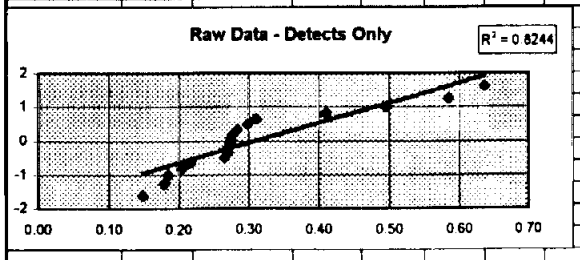
4101083

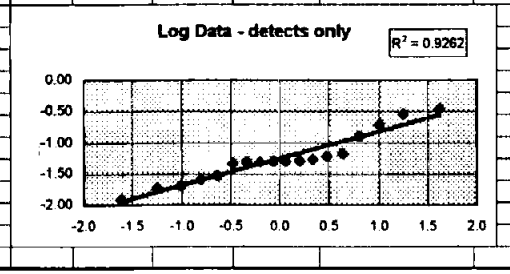
SELENIUM-CENSORED

SAMPLE_ID	UNITS	NAME	VALUE	CALC	RANK	i/(n+1)	mi	RANK	Detects-Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)						
BJETA521-A	MG/KG	SELENIUM	0.6370	0.6370	30	0.968	1.849	18	0.947	1.61986	-0.4510	**Cohen's Adjustment (log data)**					
BJETA520-A	MG/KG	SELENIUM	0.5850	0.5850	29	0.935	1.518	17	0.895	1.25212	-0.5361	Mean of Detects =	-1.249				
BJETA522-A	MG/KG	SELENIUM	0.4950	0.4950	28	0.903	1.300	16	0.842	1.00315	-0.7032	Sample Variance =	0.155				
BJETA502-A	MG/KG	SELENIUM	0.4100	0.4100	27	0.871	1.131	15	0.789	0.8046	-0.8916	h=(n-l)/n	0.400				
BJETA503-A	MG/KG	SELENIUM	0.3100	0.3100	26	0.839	0.989	14	0.737	0.63364	-1.1712	$\gamma=s_d^2/(y_d-\ln(DL))^2$	0.248				
BJETA524-A	MG/KG	SELENIUM	0.2980	0.2980	25	0.806	0.865	13	0.684	0.47951	-1.2107	λ from table	0.660				
BJETA523-A	MG/KG	SELENIUM	0.2830	0.2830	24	0.774	0.753	12	0.632	0.33604	-1.2623	$y=y_d-\lambda(y_d-\ln(DL))$	-1.771				
BJETA518-A	MG/KG	SELENIUM	0.2770	0.2770	23	0.742	0.649	11	0.579	0.1992	-1.2837	$sy=(s_d^2+l(y_d-DL)^2)^{0.}$	0.754				
BJETA512-A	MG/KG	SELENIUM	0.2740	0.2740	22	0.710	0.552	10	0.526	0.06601	-1.2946	UTLy=y+kSy	-0.469	-0.0974	(min 95)	0.539	(min 99)
BJETA527-A	MG/KG	SELENIUM	0.2730	0.2730	21	0.677	0.460	9	0.474	-0.06601	-1.2983						
BJETA501-A	MG/KG	SELENIUM	0.2700	0.2700	20	0.645	0.372	8	0.421	-0.1992	-1.3093	Mean	0.2260	Gilbert	-1.48702		
BJETA504-A	MG/KG	SELENIUM	0.2700	0.2700	19	0.613	0.287	7	0.368	-0.33604	-1.3093	Std Dev	0.1978	Gilbert	-1.62058		
BJETA508-A	MG/KG	SELENIUM	0.2650	0.2650	18	0.581	0.204	6	0.316	-0.47951	-1.3280	UTL	0.6255	0.9072	(min 95)	1.714	(min 99)
BJETA514-A	MG/KG	SELENIUM	0.2170	0.2170	17	0.548	0.122	5	0.263	-0.63364	-1.5279						
BJETA507-A	MG/KG	SELENIUM	0.2040	0.2040	16	0.516	0.040	4	0.211	-0.8046	-1.5896	Outlier?	-0.6393				
BJETA510-A	MG/KG	SELENIUM	0.1850	0.1850	15	0.484	-0.040	3	0.158	-1.00315	-1.6874	Outlier?	2.077791				
BJETA519-A	MG/KG	SELENIUM	0.1790	0.1790	14	0.452	-0.122	2	0.105	-1.25212	-1.7204						
BJETA517-A	MG/KG	SELENIUM	0.1480	0.1480	13	0.419	-0.204	1	0.053	-1.61986	-1.9105						
BJETA505-A	MG/KG	SELENIUM	0.0000	0.0700	12	0.387	-0.287				-2.6593						
BJETA506-A	MG/KG	SELENIUM	0.0000	0.0700	11	0.355	-0.372				-2.6593						
BJETA509-A	MG/KG	SELENIUM	0.0000	0.0695	10	0.323	-0.460				-2.6664						
BJETA511-A	MG/KG	SELENIUM	0.0000	0.0670	9	0.290	-0.552				-2.7031						
BJETA516-A	MG/KG	SELENIUM	0.0000	0.0670	8	0.258	-0.649				-2.7031						
BJETA535-A	MG/KG	SELENIUM	0.0000	0.0660	7	0.226	-0.753				-2.7181						
BJETA534-A	MG/KG	SELENIUM	0.0000	0.0655	6	0.194	-0.865				-2.7257						
BJETA528-A	MG/KG	SELENIUM	0.0000	0.0625	5	0.161	-0.989				-2.7726						
BJETA533-A	MG/KG	SELENIUM	0.0000	0.0625	4	0.129	-1.131				-2.7726	Censored more linear than Detects-only					
BJETA532-A	MG/KG	SELENIUM	0.0000	0.0615	3	0.097	-1.300				-2.7887	Probability plots support Cohen's assumption that					
BJETA531-A	MG/KG	SELENIUM	0.0000	0.0595	2	0.065	-1.518				-2.8218	contaminants are present at concentrations below the detection limit					
BJETA530-A	MG/KG	SELENIUM	0.0000	0.0590	1	0.032	-1.849				-2.8302						









4101030

SILVER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA534-A	MG/KG	SILVER	0.2130	0.2130	0.0125	-0.2005			-1.5465	-4.3820	-2.8356			30	0.968	1.849	=		0.0238	0.1190
BJETA501-A	MG/KG	SILVER	0.1100	0.1100	0.0261	-0.0839			-2.2073	-3.6458	-1.4385			29	0.935	1.518	TR	F	0.0260	0.1300
BJETA505-A	MG/KG	SILVER	0.0940	0.0940	0.0301	-0.0639			-2.3645	-3.5032	-1.1388			28	0.903	1.300	TR	F	0.0250	0.1300
BJETA533-A	MG/KG	SILVER	0.0912	0.0912	0.0336	-0.0576			-2.3947	-3.3932	-0.9985			27	0.871	1.131	TR	F	0.0228	0.1140
BJETA509-A	MG/KG	SILVER	0.0910	0.0910	0.0366	-0.0544			-2.3969	-3.3077	-0.9108			26	0.839	0.989	TR	F	0.0253	0.1260
BJETA511-A	MG/KG	SILVER	0.0902	0.0902	0.0434	-0.0468			-2.4057	-3.1373	-0.7316			25	0.806	0.865	TR	F	0.0244	0.1220
BJETA508-A	MG/KG	SILVER	0.0870	0.0870	0.0526	-0.0344			-2.4418	-2.9450	-0.5032			24	0.774	0.753	TR	F	0.0252	0.1260
BJETA516-A	MG/KG	SILVER	0.0853	0.0853	0.0543	-0.0310			-2.4616	-2.9132	-0.4517			23	0.742	0.649	TR	F	0.0244	0.1220
BJETA502-A	MG/KG	SILVER	0.0810	0.0810	0.0551	-0.0259			-2.5133	-2.8986	-0.3853			22	0.710	0.552	TR	F	0.0260	0.1300
BJETA510-A	MG/KG	SILVER	0.0789	0.0789	0.0553	-0.0236			-2.5396	-2.8950	-0.3554			21	0.677	0.460	TR	F	0.0247	0.1230
BJETA527-A	MG/KG	SILVER	0.0782	0.0782	0.0608	-0.0174			-2.5485	-2.8002	-0.2517			20	0.645	0.372	TR	F	0.0248	0.1240
BJETA503-A	MG/KG	SILVER	0.0730	0.0730	0.0621	-0.0109			-2.6173	-2.7790	-0.1617			19	0.613	0.287	TR	F	0.0250	0.1200
BJETA506-A	MG/KG	SILVER	0.0730	0.0730	0.0624	-0.0106			-2.6173	-2.7742	-0.1569			18	0.581	0.204	TR	F	0.0250	0.1300
BJETA524-A	MG/KG	SILVER	0.0720	0.0720	0.0641	-0.0079			-2.6311	-2.7473	-0.1162			17	0.548	0.122	TR	F	0.0248	0.1240
BJETA518-A	MG/KG	SILVER	0.0686	0.0686	0.0684	-0.0002			-2.6795	-2.6824	-0.0029			16	0.516	0.040	TR	F	0.0241	0.1200
BJETA512-A	MG/KG	SILVER	0.0684	0.0684	0.0686	0.0002	0.0076	0.0000	-2.6824	-2.6795	0.0029	0.0076	0.0000	15	0.484	-0.040	TR	F	0.0249	0.1240
BJETA517-A	MG/KG	SILVER	0.0641	0.0641	0.0720	0.0079	0.0227	0.0002	-2.7473	-2.6311	0.1162	0.0227	0.0026	14	0.452	-0.122	TR	F	0.0247	0.1230
BJETA521-A	MG/KG	SILVER	0.0624	0.0624	0.0730	0.0106	0.0381	0.0004	-2.7742	-2.6173	0.1569	0.0381	0.0060	13	0.419	-0.204	TR	F	0.0255	0.1270
BJETA520-A	MG/KG	SILVER	0.0621	0.0621	0.0730	0.0109	0.0537	0.0006	-2.7790	-2.6173	0.1617	0.0537	0.0087	12	0.387	-0.287	TR	F	0.0239	0.1190
BJETA519-A	MG/KG	SILVER	0.0608	0.0608	0.0782	0.0174	0.0697	0.0012	-2.8002	-2.5485	0.2517	0.0697	0.0175	11	0.355	-0.372	TR	F	0.0238	0.1190
BJETA523-A	MG/KG	SILVER	0.0553	0.0553	0.0789	0.0236	0.0862	0.0020	-2.8950	-2.5396	0.3554	0.0862	0.0306	10	0.323	-0.460	TR	F	0.0246	0.1230
BJETA507-A	MG/KG	SILVER	0.0551	0.0551	0.0810	0.0259	0.1036	0.0027	-2.8986	-2.5133	0.3853	0.1036	0.0399	9	0.290	-0.552	TR	F	0.0240	0.1200
BJETA522-A	MG/KG	SILVER	0.0543	0.0543	0.0853	0.0310	0.1219	0.0038	-2.9132	-2.4616	0.4517	0.1219	0.0551	8	0.258	-0.649	TR	F	0.0241	0.1210
BJETA535-A	MG/KG	SILVER	0.0526	0.0526	0.0870	0.0344	0.1415	0.0049	-2.9450	-2.4418	0.5032	0.1415	0.0712	7	0.226	-0.753	TR	F	0.0239	0.1200
BJETA514-A	MG/KG	SILVER	0.0434	0.0434	0.0902	0.0468	0.1630	0.0076	-3.1373	-2.4057	0.7316	0.1630	0.1192	6	0.194	-0.865	TR	F	0.0241	0.1210
BJETA530-A	MG/KG	SILVER	0.0366	0.0366	0.0910	0.0544	0.1870	0.0102	-3.3077	-2.3969	0.9108	0.1870	0.1703	5	0.161	-0.989	TR	F	0.0215	0.1080
BJETA531-A	MG/KG	SILVER	0.0336	0.0336	0.0912	0.0576	0.2148	0.0124	-3.3932	-2.3947	0.9985	0.2148	0.2145	4	0.129	-1.131	TR	F	0.0217	0.1080
BJETA532-A	MG/KG	SILVER	0.0301	0.0301	0.0940	0.0639	0.2487	0.0159	-3.5032	-2.3645	1.1388	0.2487	0.2832	3	0.097	-1.300	TR	F	0.0223	0.1120
BJETA528-A	MG/KG	SILVER	0.0261	0.0261	0.1100	0.0839	0.2944	0.0247	-3.6458	-2.2073	1.4385	0.2944	0.4235	2	0.065	-1.518	TR	F	0.0227	0.1140
BJETA504-A	MG/KG	SILVER	0.0000	0.0125	0.2130	0.2005	0.4254	0.0853	-4.3820	-1.5465	2.8356	0.4254	1.2062	1	0.032	-1.849	ND	U	0.0250	0.1300
							b =	0.1718				b =	2.6487							
		1	30																	
		% Non-detect	3.3%			W	0.821				W	0.918								
		Range (Raw)	0.0125	0.2130		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		0.07013					-2.772											
		Std Dev		0.03520					0.513		0.927	0.918		0.821						
		UTL (min 95)		0.148	0.0125	0.2130	0.07013	0.03520	0.195											
		UTL (ave 95)		0.131					0.152											
		Outlier Test (raw)		4.0584	Outlier!															
		Outlier Test (log)		2.3877	None															
		UTL 95,99		0.178			UTL 95,99		0.301											

4101091

SODIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA505-A	MG/KG	SODIUM	37300.00	37300.00	1.2850	-37298.7150			10.5267	0.2508	-10.2760			30	0.968	1.849	=		2.57	38.60
BJETA502-A	MG/KG	SODIUM	25800.00	25800.00	9.9600	-25790.0400			10.1581	2.2986	-7.8596			29	0.935	1.518	=		2.52	37.70
BJETA504-A	MG/KG	SODIUM	15300.00	15300.00	10.8000	-15289.2000			9.6356	2.3795	-7.2561			28	0.903	1.300	=		2.57	38.50
BJETA503-A	MG/KG	SODIUM	13100.00	13100.00	12.4000	-13087.6000			9.4804	2.5177	-6.9627			27	0.871	1.131	=		2.52	37.80
BJETA506-A	MG/KG	SODIUM	12200.00	12200.00	13.5000	-12186.5000			9.4092	2.6027	-6.8065			26	0.839	0.989	=		2.48	37.20
BJETA508-A	MG/KG	SODIUM	70.00	70.00	18.2000	-51.8000			4.2485	2.9014	-1.3471			25	0.806	0.865	=		2.53	37.90
BJETA510-A	MG/KG	SODIUM	62.20	62.20	18.6000	-43.6000			4.1304	2.9232	-1.2072			24	0.774	0.753	=		2.52	37.80
BJETA512-A	MG/KG	SODIUM	60.50	60.50	19.3000	-41.2000			4.1026	2.9601	-1.1425			23	0.742	0.649	=		2.47	37.00
BJETA514-A	MG/KG	SODIUM	58.60	58.60	19.6000	-39.0000			4.0707	2.9755	-1.0952			22	0.710	0.552	=		2.49	37.30
BJETA507-A	MG/KG	SODIUM	47.30	47.30	21.4000	-25.9000			3.8565	3.0634	-0.7931			21	0.677	0.460	=		2.41	36.20
BJETA531-A	MG/KG	SODIUM	42.30	42.30	22.0000	-20.3000			3.7448	3.0910	-0.6537			20	0.645	0.372	=		2.40	35.90
BJETA530-A	MG/KG	SODIUM	41.60	41.60	23.0000	-18.6000			3.7281	3.1355	-0.5926			19	0.613	0.287	=		2.17	32.50
BJETA528-A	MG/KG	SODIUM	41.10	41.10	23.6000	-17.5000			3.7160	3.1612	-0.5548			18	0.581	0.204	=		2.15	32.30
BJETA527-A	MG/KG	SODIUM	40.50	40.50	25.4000	-15.1000			3.7013	3.2347	-0.4666			17	0.548	0.122	=		2.27	34.10
BJETA532-A	MG/KG	SODIUM	39.40	39.40	28.4000	-11.0000			3.6738	3.3464	-0.3274			16	0.516	0.040	=		2.48	37.20
BJETA517-A	MG/KG	SODIUM	28.40	28.40	39.4000	11.0000	0.0076	0.0836	3.3464	3.6738	0.3274	0.0076	0.0025	15	0.484	-0.040	=		2.23	33.50
BJETA533-A	MG/KG	SODIUM	25.40	25.40	40.5000	15.1000	0.0227	0.3428	3.2347	3.7013	0.4666	0.0227	0.0106	14	0.452	-0.122	TR	F	2.47	37.00
BJETA511-A	MG/KG	SODIUM	23.60	23.60	41.1000	17.5000	0.0381	0.6668	3.1612	3.7160	0.5548	0.0381	0.0211	13	0.419	-0.204	TR	F	2.28	34.20
BJETA521-A	MG/KG	SODIUM	23.00	23.00	41.6000	18.6000	0.0537	0.9988	3.1355	3.7281	0.5926	0.0537	0.0318	12	0.387	-0.287	TR	F	2.44	36.60
BJETA520-A	MG/KG	SODIUM	22.00	22.00	42.3000	20.3000	0.0697	1.4149	3.0910	3.7448	0.6537	0.0697	0.0456	11	0.355	-0.372	TR	F	2.55	38.20
BJETA509-A	MG/KG	SODIUM	21.40	21.40	47.3000	25.9000	0.0862	2.2326	3.0634	3.8565	0.7931	0.0862	0.0684	10	0.323	-0.460	TR	F	2.39	35.80
BJETA523-A	MG/KG	SODIUM	19.60	19.60	58.6000	39.0000	0.1036	4.0404	2.9755	4.0707	1.0952	0.1036	0.1135	9	0.290	-0.552	TR	F	2.53	37.90
BJETA522-A	MG/KG	SODIUM	19.30	19.30	60.5000	41.2000	0.1219	5.0223	2.9601	4.1026	1.1425	0.1219	0.1393	8	0.258	-0.649	TR	F	2.46	36.90
BJETA518-A	MG/KG	SODIUM	18.60	18.60	62.2000	43.6000	0.1415	6.1694	2.9232	4.1304	1.2072	0.1415	0.1708	7	0.226	-0.753	TR	F	2.41	36.20
BJETA535-A	MG/KG	SODIUM	18.20	18.20	70.0000	51.8000	0.1630	8.4434	2.9014	4.2485	1.3471	0.1630	0.2196	6	0.194	-0.865	TR	F	2.41	36.10
BJETA516-A	MG/KG	SODIUM	13.50	13.50	12200.0000	12186.5000	0.1870	2278.8755	2.6027	9.4092	6.8065	0.1870	1.2728	5	0.161	-0.989	TR	F	2.39	35.90
BJETA524-A	MG/KG	SODIUM	12.40	12.40	13100.0000	13087.6000	0.2148	2811.2165	2.5177	9.4804	6.9627	0.2148	1.4956	4	0.129	-1.131	TR	F	2.44	36.50
BJETA534-A	MG/KG	SODIUM	10.80	10.80	15300.0000	15289.2000	0.2487	3802.4240	2.3795	9.6356	7.2561	0.2487	1.8046	3	0.097	-1.300	TR	F	2.48	37.30
BJETA519-A	MG/KG	SODIUM	9.96	9.96	25800.0000	25790.0400	0.2944	7592.5878	2.2986	10.1581	7.8596	0.2944	2.3139	2	0.065	-1.518	TR	F	2.38	35.70
BJETA501-A	MG/KG	SODIUM	0.00	1.2850	37300.0000	37298.7150	0.4254	15866.8734	0.2508	10.5267	10.2760	0.4254	4.3714	1	0.032	-1.849	ND		2.57	35.80
							b =	32381.39				b =	12.08							
		1	30																	
		% Non-detect	3.3%			W	0.467				W	0.723								
		Range (Raw)	1.285	37300.0		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		3482.3648					4.301											
		Std Dev		8803.7923					2.638		0.723		0.467	0.467						
		UTL (min 95)		23026.784	1.29	37300.00	3482.36	8803.79	25764.171											
		UTL (ave 95)		18686.514					7018.490											
		Outlier Test (raw)		3.8413	Outlier!															
		Outlier Test (log)		2.3603	None															
		UTL 95,99		30457.185			UTL 95,99		238720											

410092

LOCATION	SAMPLE_ID	METHOD	UNITS	NAME	VALUE	CALC	PQ	LQ	DET	PQL
BJETA535	BJETA535-A	SW6010	MG/KG	THALLIUM	2.430	2.430	=		1.2900	51.5000
BJETA501	BJETA501-A	SW6010	MG/KG	THALLIUM	2.060	2.060	=		1.2800	51.3000
BJETA502	BJETA502-A	SW6010	MG/KG	THALLIUM	1.780	1.780	=		1.2400	49.6000
BJETA504	BJETA504-A	SW6010	MG/KG	THALLIUM	1.620	1.620	=		1.2600	50.6000
BJETA505	BJETA505-A	SW6010	MG/KG	THALLIUM	1.490	1.490	=		1.2600	50.4000
BJETA534	BJETA534-A	SW6010	MG/KG	THALLIUM	1.400	1.400	=		1.2300	49.3000
BJETA503	BJETA503-A	SW6010	MG/KG	THALLIUM	1.270	1.270	=		1.2700	51.0000
BJETA532	BJETA532-A	SW6010	MG/KG	THALLIUM	1.150	1.150	=		1.1900	47.8000
BJETA527	BJETA527-A	SW6010	MG/KG	THALLIUM	0.000	0.640	ND	U	1.2600	50.3000
BJETA521	BJETA521-A	SW6010	MG/KG	THALLIUM	0.000	0.635	ND	U	1.2200	48.7000
BJETA509	BJETA509-A	SW6010	MG/KG	THALLIUM	0.000	0.630	ND	U	1.2600	50.4000
BJETA508	BJETA508-A	SW6010	MG/KG	THALLIUM	0.000	0.630	ND	U	1.2400	49.7000
BJETA506	BJETA506-A	SW6010	MG/KG	THALLIUM	0.000	0.630	ND	U	1.2000	47.9000
BJETA524	BJETA524-A	SW6010	MG/KG	THALLIUM	0.000	0.620	ND	U	1.2400	49.8000
BJETA512	BJETA512-A	SW6010	MG/KG	THALLIUM	0.000	0.620	ND	U	1.2100	48.3000
BJETA510	BJETA510-A	SW6010	MG/KG	THALLIUM	0.000	0.615	ND	U	1.2600	50.5000
BJETA523	BJETA523-A	SW6010	MG/KG	THALLIUM	0.000	0.615	ND	U	1.2100	48.3000
BJETA517	BJETA517-A	SW6010	MG/KG	THALLIUM	0.000	0.615	ND	U	1.2200	48.8000
BJETA516	BJETA516-A	SW6010	MG/KG	THALLIUM	0.000	0.610	ND	U	1.2300	49.1000
BJETA511	BJETA511-A	SW6010	MG/KG	THALLIUM	0.000	0.610	ND	U	1.2300	49.3000
BJETA522	BJETA522-A	SW6010	MG/KG	THALLIUM	0.000	0.605	ND	U	1.2000	48.1000
BJETA514	BJETA514-A	SW6010	MG/KG	THALLIUM	0.000	0.605	ND	U	1.1900	47.7000
BJETA507	BJETA507-A	SW6010	MG/KG	THALLIUM	0.000	0.600	ND	U	1.2300	47.8000
BJETA518	BJETA518-A	SW6010	MG/KG	THALLIUM	0.000	0.600	ND	U	1.2300	47.6000
BJETA520	BJETA520-A	SW6010	MG/KG	THALLIUM	0.000	0.595	ND	U	1.1500	44.6000
BJETA519	BJETA519-A	SW6010	MG/KG	THALLIUM	0.000	0.595	ND	U	1.2800	49.6000
BJETA528	BJETA528-A	SW6010	MG/KG	THALLIUM	0.000	0.585	ND	U	1.1700	45.5000
BJETA533	BJETA533-A	SW6010	MG/KG	THALLIUM	0.000	0.585	ND	U	1.1700	45.6000
BJETA531	BJETA531-A	SW6010	MG/KG	THALLIUM	0.000	0.560	ND	U	1.1200	43.4000
BJETA530	BJETA530-A	SW6010	MG/KG	THALLIUM	0.000	0.555	ND	U	1.1100	43.1000
				22	30					
				% Non-detect	73.3%					
				Range (Raw)	0.555	2.43				
				Mean		0.885				
				Std Dev		0.514				

4101093

VANADIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA502-A	MG/KG	VANADIUM	48.50	48.50	5.8200	-42.6800			3.8816	1.7613	-2.1203			30	0.968	1.849	=		0.5010	10.3000
BJETA503-A	MG/KG	VANADIUM	40.80	40.80	7.0600	-33.7400			3.7087	1.9544	-1.7542			29	0.935	1.518	=		0.4840	9.9300
BJETA516-A	MG/KG	VANADIUM	36.10	36.10	8.3400	-27.7600			3.5863	2.1211	-1.4652			28	0.903	1.300	=		0.4750	9.7400
BJETA508-A	MG/KG	VANADIUM	35.90	35.90	8.9100	-26.9900			3.5807	2.1872	-1.3936			27	0.871	1.131	=		0.4920	10.1000
BJETA510-A	MG/KG	VANADIUM	31.10	31.10	8.9500	-22.1500			3.4372	2.1917	-1.2456			26	0.839	0.989	=		0.4810	9.8600
BJETA505-A	MG/KG	VANADIUM	31.00	31.00	16.2000	-14.8000			3.4340	2.7850	-0.6490			25	0.806	0.865	=		0.4910	10.1000
BJETA501-A	MG/KG	VANADIUM	30.40	30.40	18.7000	-11.7000			3.4144	2.9285	-0.4859			24	0.774	0.753	=		0.5020	10.3000
BJETA504-A	MG/KG	VANADIUM	30.00	30.00	19.1000	-10.9000			3.4012	2.9497	-0.4515			23	0.742	0.649	=		0.4920	10.1000
BJETA509-A	MG/KG	VANADIUM	29.90	29.90	19.4000	-10.5000			3.3979	2.9653	-0.4326			22	0.710	0.552	=		0.4930	10.1000
BJETA506-A	MG/KG	VANADIUM	29.40	29.40	20.3000	-9.1000			3.3810	3.0106	-0.3704			21	0.677	0.460	=		0.4920	10.1000
BJETA521-A	MG/KG	VANADIUM	28.50	28.50	20.7000	-7.8000			3.3499	3.0301	-0.3198			20	0.645	0.372	=		0.4970	10.2000
BJETA517-A	MG/KG	VANADIUM	27.90	27.90	21.1000	-6.8000			3.3286	3.0493	-0.2794			19	0.613	0.287	=		0.4810	9.8600
BJETA520-A	MG/KG	VANADIUM	26.50	26.50	21.2000	-5.3000			3.2771	3.0540	-0.2231			18	0.581	0.204	=		0.4660	9.5600
BJETA518-A	MG/KG	VANADIUM	24.30	24.30	23.0000	-1.3000			3.1905	3.1355	-0.0550			17	0.548	0.122	=		0.4690	9.6300
BJETA511-A	MG/KG	VANADIUM	23.90	23.90	23.6000	-0.3000			3.1739	3.1612	-0.0126			16	0.516	0.040	=		0.4760	9.7600
BJETA512-A	MG/KG	VANADIUM	23.60	23.60	23.9000	0.3000	0.0076	0.0023	3.1612	3.1739	0.0126	0.0076	0.0001	15	0.484	-0.040	=		0.4850	9.9500
BJETA522-A	MG/KG	VANADIUM	23.00	23.00	24.3000	1.3000	0.0227	0.0295	3.1355	3.1905	0.0550	0.0227	0.0012	14	0.452	-0.122	=		0.4700	9.6500
BJETA507-A	MG/KG	VANADIUM	21.20	21.20	26.5000	5.3000	0.0381	0.2019	3.0540	3.2771	0.2231	0.0381	0.0085	13	0.419	-0.204	=		0.4670	9.5800
BJETA524-A	MG/KG	VANADIUM	21.10	21.10	27.9000	6.8000	0.0537	0.3652	3.0493	3.3286	0.2794	0.0537	0.0150	12	0.387	-0.287	=		0.4840	9.9400
BJETA514-A	MG/KG	VANADIUM	20.70	20.70	28.5000	7.8000	0.0697	0.5437	3.0301	3.3499	0.3198	0.0697	0.0223	11	0.355	-0.372	=		0.4700	9.6500
BJETA534-A	MG/KG	VANADIUM	20.30	20.30	29.4000	9.1000	0.0862	0.7844	3.0106	3.3810	0.3704	0.0862	0.0319	10	0.323	-0.460	=		0.4640	9.5200
BJETA527-A	MG/KG	VANADIUM	19.40	19.40	29.9000	10.5000	0.1036	1.0878	2.9653	3.3979	0.4326	0.1036	0.0448	9	0.290	-0.552	=		0.4840	9.9300
BJETA523-A	MG/KG	VANADIUM	19.10	19.10	30.0000	10.9000	0.1219	1.3287	2.9497	3.4012	0.4515	0.1219	0.0550	8	0.258	-0.649	=		0.4790	9.8300
BJETA519-A	MG/KG	VANADIUM	18.70	18.70	30.4000	11.7000	0.1415	1.6556	2.9285	3.4144	0.4859	0.1415	0.0688	7	0.226	-0.753	=		0.4650	9.5400
BJETA535-A	MG/KG	VANADIUM	16.20	16.20	31.0000	14.8000	0.1630	2.4124	2.7850	3.4340	0.6490	0.1630	0.1058	6	0.194	-0.865	=		0.4670	9.5700
BJETA532-A	MG/KG	VANADIUM	8.95	8.95	31.1000	22.1500	0.1870	4.1421	2.1917	3.4372	1.2456	0.1870	0.2329	5	0.161	-0.989	=		0.4350	8.9300
BJETA533-A	MG/KG	VANADIUM	8.91	8.91	35.9000	26.9900	0.2148	5.7975	2.1872	3.5807	1.3936	0.2148	0.2993	4	0.129	-1.131	TR	F	0.4450	9.1200
BJETA528-A	MG/KG	VANADIUM	8.34	8.34	36.1000	27.7600	0.2487	6.9039	2.1211	3.5863	1.4652	0.2487	0.3644	3	0.097	-1.300	TR	F	0.4430	9.0900
BJETA530-A	MG/KG	VANADIUM	7.06	7.06	40.8000	33.7400	0.2944	9.9331	1.9544	3.7087	1.7542	0.2944	0.5164	2	0.065	-1.518	TR	F	0.4200	8.6100
BJETA531-A	MG/KG	VANADIUM	5.82	5.82	48.5000	42.6800	0.4254	18.1561	1.7613	3.8816	2.1203	0.4254	0.9020	1	0.032	-1.849	TR	F	0.4230	8.6800
							b =	53.3440				b =	2.6685							
		0	30																	
		% Non-detect	0.0%			W	0.966				W	0.884								
		Range (Raw)	5.82	48.5		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		23.886					3.061											
		Std Dev		10.0778					0.527		0.927	0.884		0.966						
		UTL (min 95)		46.259	5.8200	48.5000	23.88600	10.07777	68.798											
		UTL (ave 95)		41.290					53.053											
		Outlier Test (raw)		2.4424	None															
		Outlier Test (log)		1.5568	None															
		UTL 95,99		54.764			UTL 95,99		107.349											

410109

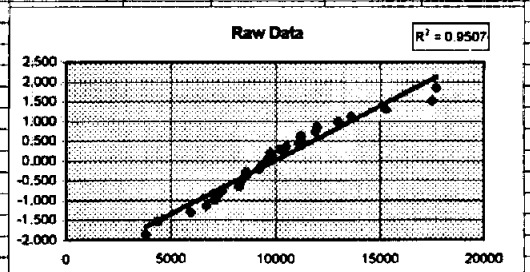
ZINC

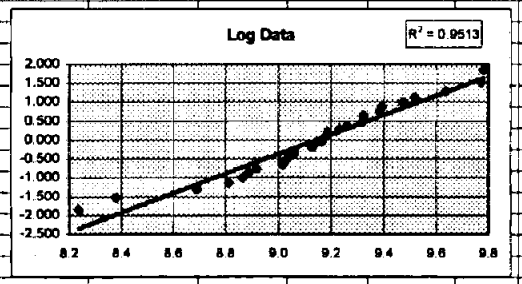
SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA501-A	MG/KG	ZINC	124.0	124.0	13.3000	-110.7000			4.8203	2.5878	-2.2325			30	0.968	1.849	=		0.2190	2.5700
BJETA508-A	MG/KG	ZINC	38.8	38.8	18.5000	-20.3000			3.6584	2.9178	-0.7406			29	0.935	1.518	=		0.2140	2.5200
BJETA502-A	MG/KG	ZINC	37.8	37.8	18.5000	-19.3000			3.6323	2.9178	-0.7145			28	0.903	1.300	=		0.2180	2.5700
BJETA534-A	MG/KG	ZINC	37.8	37.8	18.9000	-18.9000			3.6323	2.9392	-0.6931			27	0.871	1.131	=		0.2020	2.3800
BJETA527-A	MG/KG	ZINC	36.9	36.9	19.9000	-17.0000			3.6082	2.9907	-0.6175			26	0.839	0.989	=		0.2110	2.4800
BJETA530-A	MG/KG	ZINC	32.8	32.8	21.2000	-11.6000			3.4904	3.0540	-0.4364			25	0.806	0.865	=		0.1830	2.1500
BJETA506-A	MG/KG	ZINC	31.5	31.5	21.8000	-9.7000			3.4500	3.0819	-0.3681			24	0.774	0.753	=		0.2150	2.5300
BJETA524-A	MG/KG	ZINC	30.1	30.1	21.9000	-8.2000			3.4045	3.0865	-0.3180			23	0.742	0.649	=		0.2110	2.4800
BJETA503-A	MG/KG	ZINC	29.5	29.5	22.2000	-7.3000			3.3844	3.1001	-0.2843			22	0.710	0.552	=		0.2110	2.4800
BJETA516-A	MG/KG	ZINC	28.4	28.4	22.3000	-6.1000			3.3464	3.1046	-0.2418			21	0.677	0.460	=		0.2070	2.4400
BJETA504-A	MG/KG	ZINC	28.2	28.2	22.9000	-5.3000			3.3393	3.1311	-0.2082			20	0.645	0.372	=		0.2140	2.5200
BJETA505-A	MG/KG	ZINC	28.0	28.0	23.6000	-4.4000			3.3322	3.1612	-0.1710			19	0.613	0.287	=		0.2140	2.5200
BJETA521-A	MG/KG	ZINC	25.8	25.8	24.0000	-1.8000			3.2504	3.1781	-0.0723			18	0.581	0.204	=		0.2170	2.5500
BJETA510-A	MG/KG	ZINC	25.6	25.6	24.6000	-1.0000			3.2426	3.2027	-0.0398			17	0.548	0.122	=		0.2100	2.4700
BJETA517-A	MG/KG	ZINC	25.2	25.2	25.1000	-0.1000			3.2268	3.2229	-0.0040			16	0.516	0.040	=		0.2100	2.4700
BJETA509-A	MG/KG	ZINC	25.1	25.1	25.2000	0.1000	0.0076	0.0008	3.2229	3.2268	0.0040	0.0076	0.0000	15	0.484	-0.040	=		0.2150	2.5300
BJETA518-A	MG/KG	ZINC	24.6	24.6	25.6000	1.0000	0.0227	0.0227	3.2027	3.2426	0.0398	0.0227	0.0009	14	0.452	-0.122	=		0.2050	2.4100
BJETA511-A	MG/KG	ZINC	24.0	24.0	25.8000	1.8000	0.0381	0.0686	3.1781	3.2504	0.0723	0.0381	0.0028	13	0.419	-0.204	=		0.2070	2.4400
BJETA528-A	MG/KG	ZINC	23.6	23.6	28.0000	4.4000	0.0537	0.2363	3.1612	3.3322	0.1710	0.0537	0.0092	12	0.387	-0.287	=		0.1930	2.2700
BJETA533-A	MG/KG	ZINC	22.9	22.9	28.2000	5.3000	0.0697	0.3694	3.1311	3.3393	0.2082	0.0697	0.0145	11	0.355	-0.372	=		0.1940	2.2800
BJETA514-A	MG/KG	ZINC	22.3	22.3	28.4000	6.1000	0.0862	0.5258	3.1046	3.3464	0.2418	0.0862	0.0208	10	0.323	-0.460	=		0.2050	2.4100
BJETA520-A	MG/KG	ZINC	22.2	22.2	29.5000	7.3000	0.1036	0.7563	3.1001	3.3844	0.2843	0.1036	0.0295	9	0.290	-0.552	=		0.2030	2.3900
BJETA519-A	MG/KG	ZINC	21.9	21.9	30.1000	8.2000	0.1219	0.9996	3.0865	3.4045	0.3180	0.1219	0.0388	8	0.258	-0.649	=		0.2030	2.3800
BJETA512-A	MG/KG	ZINC	21.8	21.8	31.5000	9.7000	0.1415	1.3726	3.0819	3.4500	0.3681	0.1415	0.0521	7	0.226	-0.753	=		0.2110	2.4900
BJETA522-A	MG/KG	ZINC	21.2	21.2	32.8000	11.6000	0.1630	1.8908	3.0540	3.4904	0.4364	0.1630	0.0711	6	0.194	-0.865	=		0.2050	2.4100
BJETA507-A	MG/KG	ZINC	19.9	19.9	36.9000	17.0000	0.1870	3.1790	2.9907	3.6082	0.6175	0.1870	0.1155	5	0.161	-0.989	=		0.2040	2.4000
BJETA535-A	MG/KG	ZINC	18.9	18.9	37.8000	18.9000	0.2148	4.0597	2.9392	3.6323	0.6931	0.2148	0.1489	4	0.129	-1.131	=		0.2030	2.3900
BJETA523-A	MG/KG	ZINC	18.5	18.5	37.8000	19.3000	0.2487	4.7999	2.9178	3.6323	0.7145	0.2487	0.1777	3	0.097	-1.300	=		0.2090	2.4600
BJETA532-A	MG/KG	ZINC	18.5	18.5	38.8000	20.3000	0.2944	5.9763	2.9178	3.6584	0.7406	0.2944	0.2180	2	0.065	-1.518	=		0.1900	2.2300
BJETA531-A	MG/KG	ZINC	13.3	13.3	124.0000	110.7000	0.4254	47.0918	2.5878	4.8203	2.2325	0.4254	0.9497	1	0.032	-1.849	=		0.1840	2.1700
							b =	71.3495				b =	1.8495							
		0	30																	
		% Non-detect	0.0%			W	0.488				W	0.819								
		Range (Raw)	13.3	124.0		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		29.3033					3.283											
		Std Dev		18.9627					0.379		0.927	0.819		0.488						
		UTL (min 95)		71.401	13.3000	124.0000	29.30333	18.96269	61.898											
		UTL (ave 95)		62.052					51.338											
		Outlier Test (raw)		4.9938	Outlier!															
		Outlier Test (log)		4.0512	Outlier!															
		UTL 95,99		87.405			UTL 95,99		85.261											

4101095

ALUMINUM

SAMPLE_ID	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) CALC	$a_{(n+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA501-B	ALUMINUM	17700	17700	3780.0000	-13920.0000			9.7813	8.2375	-1.5438			30	0.968	1.849	=		1.1500	56.9000
BJETA509-B	ALUMINUM	17500	17500	4360.0000	-13140.0000			9.7700	8.3802	-1.3897			29	0.935	1.518	=		1.1700	57.9000
BJETA511-B	ALUMINUM	15300	15300	5950.0000	-9350.0000			9.6356	8.6911	-0.9445			28	0.903	1.300	=		1.1900	58.9000
BJETA529-B	ALUMINUM	13600	13600	6720.0000	-6880.0000			9.5178	8.8128	-0.7050			27	0.871	1.131	=		1.1600	57.2000
BJETA515-B	ALUMINUM	13000	13000	7080.0000	-5920.0000			9.4727	8.8650	-0.6077			26	0.839	0.989	=		1.1700	57.9000
BJETA525-B	ALUMINUM	12000	12000	7250.0000	-4750.0000			9.3927	8.8888	-0.5039			25	0.806	0.865	=		1.1200	55.6000
BJETA517-B	ALUMINUM	11900	11900	7470.0000	-4430.0000			9.3843	8.9187	-0.4656			24	0.774	0.753	=		1.1700	58.1000
BJETA518-B	ALUMINUM	11200	11200	8250.0000	-2950.0000			9.3237	9.0180	-0.3057			23	0.742	0.649	=		1.1400	56.6000
BJETA506-B	ALUMINUM	11200	11200	8320.0000	-2880.0000			9.3237	9.0264	-0.2973			22	0.710	0.552	=		1.1200	55.4000
BJETA507-B	ALUMINUM	11100	11100	8420.0000	-2680.0000			9.3147	9.0384	-0.2763			21	0.677	0.460	=		1.1400	56.6000
BJETA504-B	ALUMINUM	10500	10500	8600.0000	-1900.0000			9.2591	9.0595	-0.1996			20	0.645	0.372	=		1.0800	53.7000
BJETA513-B	ALUMINUM	10200	10200	8600.0000	-1600.0000			9.2301	9.0595	-0.1706			19	0.613	0.287	=		1.1500	56.9000
BJETA505-B	ALUMINUM	9770	9770	9210.0000	-560.0000			9.1871	9.1280	-0.0590			18	0.581	0.204	=		1.1100	54.7000
BJETA514-B	ALUMINUM	9740	9740	9290.0000	-450.0000			9.1840	9.1367	-0.0473			17	0.548	0.122	=		1.1100	54.7000
BJETA521-B	ALUMINUM	9590	9590	9560.0000	-30.0000			9.1685	9.1653	-0.0031			16	0.516	0.040	=		1.1700	58.0000
BJETA526-B	ALUMINUM	9560	9560	9590.0000	30.0000	0.0076	0.2280	9.1653	9.1685	0.0031	0.0076	0.0000	15	0.484	-0.040	=		1.1600	57.3000
BJETA531-B	ALUMINUM	9290	9290	9740.0000	450.0000	0.0227	10.2150	9.1367	9.1840	0.0473	0.0227	0.0011	14	0.452	-0.122	=		1.1400	56.4000
BJETA527-B	ALUMINUM	9210	9210	9770.0000	560.0000	0.0381	21.3360	9.1280	9.1871	0.0590	0.0381	0.0022	13	0.419	-0.204	=		1.1700	58.1000
BJETA520-B	ALUMINUM	8600	8600	10200.0000	1600.0000	0.0537	85.9200	9.0595	9.2301	0.1706	0.0537	0.0092	12	0.387	-0.287	=		1.2200	60.2000
BJETA523-B	ALUMINUM	8600	8600	10500.0000	1900.0000	0.0697	132.4300	9.0595	9.2591	0.1996	0.0697	0.0139	11	0.355	-0.372	=		1.1400	56.3000
BJETA512-B	ALUMINUM	8420	8420	11100.0000	2680.0000	0.0862	231.0160	9.0384	9.3147	0.2763	0.0862	0.0238	10	0.323	-0.460	=		1.1100	55.1000
BJETA522-B	ALUMINUM	8320	8320	11200.0000	2880.0000	0.1036	298.3680	9.0264	9.3237	0.2973	0.1036	0.0308	9	0.290	-0.552	=		1.1300	55.7000
BJETA510-B	ALUMINUM	8250	8250	11200.0000	2950.0000	0.1219	359.6050	9.0180	9.3237	0.3057	0.1219	0.0373	8	0.258	-0.649	=		1.1500	56.9000
BJETA530-B	ALUMINUM	7470	7470	11900.0000	4430.0000	0.1415	626.8450	8.9187	9.3843	0.4656	0.1415	0.0659	7	0.226	-0.753	=		1.1300	56.2000
BJETA524-B	ALUMINUM	7250	7250	12000.0000	4750.0000	0.1630	774.2500	8.8888	9.3927	0.5039	0.1630	0.0821	6	0.194	-0.865	=		1.1100	55.1000
BJETA502-B	ALUMINUM	7080	7080	13000.0000	5920.0000	0.1870	1107.0400	8.8650	9.4727	0.6077	0.1870	0.1136	5	0.161	-0.989	=		1.1400	56.4000
BJETA532-B	ALUMINUM	6720	6720	13600.0000	6880.0000	0.2148	1477.8240	8.8128	9.5178	0.7050	0.2148	0.1514	4	0.129	-1.131	=		1.1200	55.6000
BJETA528-B	ALUMINUM	5950	5950	15300.0000	9350.0000	0.2487	2325.3450	8.6911	9.6356	0.9445	0.2487	0.2349	3	0.097	-1.300	=		1.1600	57.3000
BJETA503-B	ALUMINUM	4360	4360	17500.0000	13140.0000	0.2944	3868.4160	8.3802	9.7700	1.3897	0.2944	0.4091	2	0.065	-1.518	=		1.0600	52.3000
BJETA519-B	ALUMINUM	3780	3780	17700.0000	13920.0000	0.4254	5921.5680	8.2375	9.7813	1.5438	0.4254	0.6567	1	0.032	-1.849	=		1.1700	58.0000
						b =	**17240.4060**				**b =**	**1.8322**							
	0	30																	
	% Non-detect	0.0%			W	0.955				W	0.960								
	Range (Raw)	3780	17700		W (crit)	0.927				W (crit)	0.927								
						Accept					Accept								
	Mean		9905.33					9.146											
	Std Dev		3276.73					0.347		0.960		0.955							
	UTL (min 95)		17179.671	3780.0000	17700.0000	9905.33333	3276.72853	20259.611											
	UTL (ave 95)		15564.244					17072.747											
	Outlier Test (raw)		2.3788	None															
	Outlier Test (log)		1.8309	None															





4101096

ANTIMONY

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
BJETA525	BJETA525-B	MG/KG	ANTIMONY	0.7120	0.7120	=		0.2220	0.5560
BJETA523	BJETA523-B	MG/KG	ANTIMONY	0.5090	0.5090	TR	F	0.2250	0.5630
BJETA501	BJETA501-B	MG/KG	ANTIMONY	0.4300	0.4300	TR	F	0.2300	0.5700
BJETA510	BJETA510-B	MG/KG	ANTIMONY	0.3150	0.3150	TR	F	0.2280	0.5690
BJETA512	BJETA512-B	MG/KG	ANTIMONY	0.2730	0.2730	TR	F	0.2210	0.5510
BJETA513	BJETA513-B	MG/KG	ANTIMONY	0.2670	0.2670	TR	F	0.2280	0.5690
BJETA520	BJETA520-B	MG/KG	ANTIMONY	0.0000	0.1205	ND	U	0.2410	0.6020
BJETA511	BJETA511-B	MG/KG	ANTIMONY	0.0000	0.1180	ND	U	0.2360	0.5890
BJETA517	BJETA517-B	MG/KG	ANTIMONY	0.0000	0.1165	ND	U	0.2330	0.5810
BJETA515	BJETA515-B	MG/KG	ANTIMONY	0.0000	0.1160	ND	U	0.2320	0.5790
BJETA519	BJETA519-B	MG/KG	ANTIMONY	0.0000	0.1160	ND	U	0.2320	0.5800
BJETA521	BJETA521-B	MG/KG	ANTIMONY	0.0000	0.1160	ND	U	0.2320	0.5800
BJETA527	BJETA527-B	MG/KG	ANTIMONY	0.0000	0.1160	ND	U	0.2320	0.5810
BJETA509	BJETA509-B	MG/KG	ANTIMONY	0.0000	0.1155	ND	U	0.2310	0.5790
BJETA502	BJETA502-B	MG/KG	ANTIMONY	0.0000	0.1150	ND	U	0.2300	0.5600
BJETA526	BJETA526-B	MG/KG	ANTIMONY	0.0000	0.1145	ND	U	0.2290	0.5730
BJETA528	BJETA528-B	MG/KG	ANTIMONY	0.0000	0.1145	ND	U	0.2290	0.5730
BJETA529	BJETA529-B	MG/KG	ANTIMONY	0.0000	0.1145	ND	U	0.2290	0.5720
BJETA507	BJETA507-B	MG/KG	ANTIMONY	0.0000	0.1135	ND	U	0.2270	0.5660
BJETA518	BJETA518-B	MG/KG	ANTIMONY	0.0000	0.1130	ND	U	0.2260	0.5660
BJETA530	BJETA530-B	MG/KG	ANTIMONY	0.0000	0.1125	ND	U	0.2250	0.5620
BJETA531	BJETA531-B	MG/KG	ANTIMONY	0.0000	0.1125	ND	U	0.2250	0.5640
BJETA522	BJETA522-B	MG/KG	ANTIMONY	0.0000	0.1115	ND	U	0.2230	0.5570
BJETA532	BJETA532-B	MG/KG	ANTIMONY	0.0000	0.1110	ND	U	0.2220	0.5560
BJETA505	BJETA505-B	MG/KG	ANTIMONY	0.0000	0.1100	ND	U	0.2200	0.5500
BJETA506	BJETA506-B	MG/KG	ANTIMONY	0.0000	0.1100	ND	U	0.2200	0.5500
BJETA524	BJETA524-B	MG/KG	ANTIMONY	0.0000	0.1100	ND	U	0.2200	0.5510
BJETA514	BJETA514-B	MG/KG	ANTIMONY	0.0000	0.1095	ND	U	0.2190	0.5470
BJETA503	BJETA503-B	MG/KG	ANTIMONY	0.0000	0.1050	ND	U	0.2100	0.5200
BJETA504	BJETA504-B	MG/KG	ANTIMONY	0.0000	0.1050	ND	U	0.2100	0.5400
			24	30					
			% Non-detect	80.0%					
			Range (Raw)	0.1050	0.7120				
			Mean		0.17408				
			Std Dev		0.14319				

410109

ARSENIC

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-B	MG/KG	ARSENIC	5.3100	5.3100	1.4200	-3.8900			1.6696	0.3507	-1.3189			30	0.968	1.849	=		0.5320	0.5790
BJETA510-B	MG/KG	ARSENIC	5.1200	5.1200	1.4500	-3.6700			1.6332	0.3716	-1.2616			29	0.935	1.518	=		0.5230	0.5690
BJETA511-B	MG/KG	ARSENIC	4.8400	4.8400	1.6700	-3.1700			1.5769	0.5128	-1.0641			28	0.903	1.300	=		0.5420	0.5890
BJETA523-B	MG/KG	ARSENIC	4.5300	4.5300	1.6800	-2.8500			1.5107	0.5188	-0.9919			27	0.871	1.131	=		0.5180	0.5630
BJETA514-B	MG/KG	ARSENIC	4.4100	4.4100	1.9000	-2.5100			1.4839	0.6419	-0.8420			26	0.839	0.989	=		0.5030	0.5470
BJETA515-B	MG/KG	ARSENIC	4.2800	4.2800	1.9300	-2.3500			1.4540	0.6575	-0.7964			25	0.806	0.865	=		0.5330	0.5790
BJETA501-B	MG/KG	ARSENIC	4.0800	4.0800	1.9700	-2.1100			1.4061	0.6780	-0.7281			24	0.774	0.753	=		0.5230	0.5690
BJETA512-B	MG/KG	ARSENIC	3.8300	3.8300	2.1700	-1.6600			1.3429	0.7747	-0.5681			23	0.742	0.649	=		0.5070	0.5510
BJETA517-B	MG/KG	ARSENIC	3.7600	3.7600	2.3400	-1.4200			1.3244	0.8502	-0.4743			22	0.710	0.552	=		0.5350	0.5810
BJETA525-B	MG/KG	ARSENIC	3.6400	3.6400	2.3600	-1.2800			1.2920	0.8587	-0.4333			21	0.677	0.460	=		0.5110	0.5560
BJETA507-B	MG/KG	ARSENIC	3.4900	3.4900	2.3700	-1.1200			1.2499	0.8629	-0.3870			20	0.645	0.372	=		0.5210	0.5660
BJETA513-B	MG/KG	ARSENIC	3.3300	3.3300	2.5300	-0.8000			1.2030	0.9282	-0.2748			19	0.613	0.287	=		0.5230	0.5690
BJETA505-B	MG/KG	ARSENIC	2.9700	2.9700	2.5500	-0.4200			1.0886	0.9361	-0.1525			18	0.581	0.204	=		0.5030	0.5470
BJETA520-B	MG/KG	ARSENIC	2.8500	2.8500	2.5800	-0.2700			1.0473	0.9478	-0.0995			17	0.548	0.122	=		0.5540	0.6020
BJETA529-B	MG/KG	ARSENIC	2.8100	2.8100	2.7800	-0.0300			1.0332	1.0225	-0.0107			16	0.516	0.040	=		0.5260	0.5720
BJETA518-B	MG/KG	ARSENIC	2.7800	2.7800	2.8100	0.0300	0.0076	0.0002	1.0225	1.0332	0.0107	0.0076	0.0001	15	0.484	-0.040	=		0.5200	0.5660
BJETA521-B	MG/KG	ARSENIC	2.5800	2.5800	2.8500	0.2700	0.0227	0.0061	0.9478	1.0473	0.0995	0.0227	0.0023	14	0.452	-0.122	=		0.5340	0.5800
BJETA524-B	MG/KG	ARSENIC	2.5500	2.5500	2.9700	0.4200	0.0381	0.0160	0.9361	1.0886	0.1525	0.0381	0.0058	13	0.419	-0.204	=		0.5070	0.5510
BJETA531-B	MG/KG	ARSENIC	2.5300	2.5300	3.3300	0.8000	0.0537	0.0430	0.9282	1.2030	0.2748	0.0537	0.0148	12	0.387	-0.287	=		0.5190	0.5640
BJETA504-B	MG/KG	ARSENIC	2.3700	2.3700	3.4900	1.1200	0.0697	0.0781	0.8629	1.2499	0.3870	0.0697	0.0270	11	0.355	-0.372	=		0.4940	0.5370
BJETA526-B	MG/KG	ARSENIC	2.3600	2.3600	3.6400	1.2800	0.0862	0.1103	0.8587	1.2920	0.4333	0.0862	0.0374	10	0.323	-0.460	=		0.5270	0.5730
BJETA522-B	MG/KG	ARSENIC	2.3400	2.3400	3.7600	1.4200	0.1036	0.1471	0.8502	1.3244	0.4743	0.1036	0.0491	9	0.290	-0.552	=		0.5130	0.5570
BJETA530-B	MG/KG	ARSENIC	2.1700	2.1700	3.8300	1.6600	0.1219	0.2024	0.7747	1.3429	0.5681	0.1219	0.0693	8	0.258	-0.649	=		0.5170	0.5620
BJETA532-B	MG/KG	ARSENIC	1.9700	1.9700	4.0800	2.1100	0.1415	0.2986	0.6780	1.4061	0.7281	0.1415	0.1030	7	0.226	-0.753	=		0.5120	0.5560
BJETA502-B	MG/KG	ARSENIC	1.9300	1.9300	4.2800	2.3500	0.1630	0.3831	0.6575	1.4540	0.7964	0.1630	0.1298	6	0.194	-0.865	=		0.4080	0.5640
BJETA506-B	MG/KG	ARSENIC	1.9000	1.9000	4.4100	2.5100	0.1870	0.4694	0.6419	1.4839	0.8420	0.1870	0.1575	5	0.161	-0.989	=		0.5040	0.5540
BJETA519-B	MG/KG	ARSENIC	1.6800	1.6800	4.5300	2.8500	0.2148	0.6122	0.5188	1.5107	0.9919	0.2148	0.2131	4	0.129	-1.131	=		0.5340	0.5800
BJETA527-B	MG/KG	ARSENIC	1.6700	1.6700	4.8400	3.1700	0.2487	0.7884	0.5128	1.5769	1.0641	0.2487	0.2646	3	0.097	-1.300	=		0.5340	0.5810
BJETA528-B	MG/KG	ARSENIC	1.4500	1.4500	5.1200	3.6700	0.2944	1.0804	0.3716	1.6332	1.2616	0.2944	0.3714	2	0.065	-1.518	=		0.5270	0.5730
BJETA503-B	MG/KG	ARSENIC	1.4200	1.4200	5.3100	3.8900	0.4254	1.6548	0.3507	1.6696	1.3189	0.4254	0.5611	1	0.032	-1.849	=		0.4810	0.5230
							b =	5.8900				b =	2.0061							
		0	30																	
		% Non-detect	0.0%			W	0.942				W	0.963								
		Range (Raw)	1.4200	5.3100		W (crit)	0.927				W (crit)	0.927								
							Accept					Accept								
		Mean		3.032					1.041											
		Std Dev		1.127					0.380		0.963		0.942							
		UTL (min 95)		5.533	1.4200	5.3100	3.03167	1.12663	6.578											
		UTL (ave 95)		4.977					5.455											
		Outlier Test (raw)		2.0223	None															
		Outlier Test (log)		1.6559	None															
		UTL 95,99		6.484			UTL 95,99		9.063											

4101098

BARIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA522-B	MG/KG	BARIUM	127	127	16.4000	-110.6000			4.8442	2.7973	-2.0469			30	0.968	1.849	=		0.0446	2.2300
BJETA509-B	MG/KG	BARIUM	120	120	21.3000	-98.7000			4.7875	3.0587	-1.7288			29	0.935	1.518	=		0.0463	2.3100
BJETA525-B	MG/KG	BARIUM	103	103	22.7000	-80.3000			4.6347	3.1224	-1.5124			28	0.903	1.300	=		0.0444	2.2200
BJETA518-B	MG/KG	BARIUM	97.7	97.7	24.5000	-73.2000			4.5819	3.1987	-1.3832			27	0.871	1.131	=		0.0452	2.2600
BJETA527-B	MG/KG	BARIUM	96.9	96.9	43.4000	-53.5000			4.5737	3.7705	-0.8032			26	0.839	0.989	=		0.0465	2.3200
BJETA513-B	MG/KG	BARIUM	92.2	92.2	43.5000	-48.7000			4.5240	3.7728	-0.7512			25	0.806	0.865	=		0.0455	2.2800
BJETA517-B	MG/KG	BARIUM	86.0	86.0	44.3000	-41.7000			4.4543	3.7910	-0.6634			24	0.774	0.753	=		0.0465	2.3300
BJETA526-B	MG/KG	BARIUM	84.7	84.7	46.4000	-38.3000			4.4391	3.8373	-0.6018			23	0.742	0.649	=		0.0458	2.2900
BJETA511-B	MG/KG	BARIUM	82.9	82.9	48.9000	-34.0000			4.4176	3.8898	-0.5279			22	0.710	0.552	=		0.0471	2.3600
BJETA521-B	MG/KG	BARIUM	82.4	82.4	53.1000	-29.3000			4.4116	3.9722	-0.4394			21	0.677	0.460	=		0.0464	2.3200
BJETA514-B	MG/KG	BARIUM	74.0	74.0	56.9000	-17.1000			4.3041	4.0413	-0.2628			20	0.645	0.372	=		0.0438	2.1900
BJETA501-B	MG/KG	BARIUM	72.4	72.4	56.9000	-15.5000			4.2822	4.0413	-0.2409			19	0.613	0.287	=		0.0455	2.2800
BJETA515-B	MG/KG	BARIUM	71.9	71.9	58.4000	-13.5000			4.2753	4.0673	-0.2080			18	0.581	0.204	=		0.0463	2.3200
BJETA523-B	MG/KG	BARIUM	63.6	63.6	59.9000	-3.7000			4.1526	4.0927	-0.0599			17	0.548	0.122	=		0.0450	2.2500
BJETA505-B	MG/KG	BARIUM	62.4	62.4	61.2000	-1.2000			4.1336	4.1141	-0.0194			16	0.516	0.040	=		0.0438	2.1900
BJETA512-B	MG/KG	BARIUM	61.2	61.2	62.4000	1.2000	0.0076	0.0091	4.1141	4.1336	0.0194	0.0076	0.0001	15	0.484	-0.040	=		0.0441	2.2100
BJETA531-B	MG/KG	BARIUM	59.9	59.9	63.6000	3.7000	0.0227	0.0840	4.0927	4.1526	0.0599	0.0227	0.0014	14	0.452	-0.122	=		0.0451	2.2500
BJETA520-B	MG/KG	BARIUM	58.4	58.4	71.9000	13.5000	0.0381	0.5144	4.0673	4.2753	0.2080	0.0381	0.0079	13	0.419	-0.204	=		0.0482	2.4100
BJETA506-B	MG/KG	BARIUM	56.9	56.9	72.4000	15.5000	0.0537	0.8324	4.0413	4.2822	0.2409	0.0537	0.0129	12	0.387	-0.287	=		0.0443	2.2100
BJETA504-B	MG/KG	BARIUM	56.9	56.9	74.0000	17.1000	0.0697	1.1919	4.0413	4.3041	0.2628	0.0697	0.0183	11	0.355	-0.372	=		0.0430	2.1500
BJETA524-B	MG/KG	BARIUM	53.1	53.1	82.4000	29.3000	0.0862	2.5257	3.9722	4.4116	0.4394	0.0862	0.0379	10	0.323	-0.460	=		0.0441	2.2000
BJETA507-B	MG/KG	BARIUM	48.9	48.9	82.9000	34.0000	0.1036	3.5224	3.8898	4.4176	0.5279	0.1036	0.0547	9	0.290	-0.552	=		0.0453	2.2700
BJETA530-B	MG/KG	BARIUM	46.4	46.4	84.7000	38.3000	0.1219	4.6688	3.8373	4.4391	0.6018	0.1219	0.0734	8	0.258	-0.649	=		0.0449	2.2500
BJETA510-B	MG/KG	BARIUM	44.3	44.3	86.0000	41.7000	0.1415	5.9006	3.7910	4.4543	0.6634	0.1415	0.0939	7	0.226	-0.753	=		0.0455	2.2800
BJETA532-B	MG/KG	BARIUM	43.5	43.5	92.2000	48.7000	0.1630	7.9381	3.7728	4.5240	0.7512	0.1630	0.1224	6	0.194	-0.865	=		0.0445	2.2200
BJETA529-B	MG/KG	BARIUM	43.4	43.4	96.9000	53.5000	0.1870	10.0045	3.7705	4.5737	0.8032	0.1870	0.1502	5	0.161	-0.989	=		0.0458	2.2900
BJETA502-B	MG/KG	BARIUM	24.5	24.5	97.7000	73.2000	0.2148	15.7234	3.1987	4.5819	1.3832	0.2148	0.2971	4	0.129	-1.131	=		0.0451	2.2500
BJETA528-B	MG/KG	BARIUM	22.7	22.7	103.0000	80.3000	0.2487	19.9706	3.1224	4.6347	1.5124	0.2487	0.3761	3	0.097	-1.300	=		0.0458	2.2900
BJETA519-B	MG/KG	BARIUM	21.3	21.3	120.0000	98.7000	0.2944	29.0573	3.0587	4.7875	1.7288	0.2944	0.5090	2	0.065	-1.518	=		0.0464	2.3200
BJETA503-B	MG/KG	BARIUM	16.4	16.4	127.0000	110.6000	0.4254	47.0492	2.7973	4.8442	2.0469	0.4254	0.8708	1	0.032	-1.849	=		0.0418	2.0900
							b =	148.9922				b =	2.6261							
		0	30																	
		% Non-detect	0.0%			W	0.974				W	0.922								
		Range (Raw)	16.4000	127.0000		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		65.83000					4.079											
		Std Dev		28.02949					0.508		0.922		0.974							
		UTL (min 95)		128.055	16.4000	127.0000	65.83000	28.02949	182.566											
		UTL (ave 95)		114.237					142.123											
		Outlier Test (raw)		2.1823	None															
		Outlier Test (log)		1.5055	None															
		UTL 95,99		151.712																

410109

BERYLLIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-B	MG/KG	BERYLLIUM	1.0700	1.0700	0.2080	-0.8620			0.0677	-1.5702	-1.6379			30	0.968	1.849	=		0.0116	0.3470
BJETA511-B	MG/KG	BERYLLIUM	0.9030	0.9030	0.2830	-0.6200			-0.1020	-1.2623	-1.1603			29	0.935	1.518	=		0.0118	0.3530
BJETA515-B	MG/KG	BERYLLIUM	0.7360	0.7360	0.3360	-0.4000			-0.3065	-1.0906	-0.7841			28	0.903	1.300	=		0.0116	0.3480
BJETA529-B	MG/KG	BERYLLIUM	0.7240	0.7240	0.3650	-0.3590			-0.3230	-1.0079	-0.6849			27	0.871	1.131	=		0.0114	0.3430
BJETA517-B	MG/KG	BERYLLIUM	0.7030	0.7030	0.3940	-0.3090			-0.3524	-0.9314	-0.5790			26	0.839	0.989	=		0.0116	0.3490
BJETA501-B	MG/KG	BERYLLIUM	0.6930	0.6930	0.4220	-0.2710			-0.3667	-0.8627	-0.4960			25	0.806	0.865	=		0.0114	0.3410
BJETA521-B	MG/KG	BERYLLIUM	0.6830	0.6830	0.4350	-0.2480			-0.3813	-0.8324	-0.4511			24	0.774	0.753	=		0.0116	0.3480
BJETA518-B	MG/KG	BERYLLIUM	0.6800	0.6800	0.4560	-0.2240			-0.3857	-0.7853	-0.3996			23	0.742	0.649	=		0.0113	0.3390
BJETA525-B	MG/KG	BERYLLIUM	0.6710	0.6710	0.4620	-0.2090			-0.3990	-0.7722	-0.3732			22	0.710	0.552	=		0.0111	0.3330
BJETA513-B	MG/KG	BERYLLIUM	0.6420	0.6420	0.4820	-0.1600			-0.4432	-0.7298	-0.2866			21	0.677	0.460	=		0.0114	0.3410
BJETA520-B	MG/KG	BERYLLIUM	0.6390	0.6390	0.5070	-0.1320			-0.4479	-0.6792	-0.2314			20	0.645	0.372	=		0.0120	0.3610
BJETA507-B	MG/KG	BERYLLIUM	0.5890	0.5890	0.5130	-0.0760			-0.5293	-0.6675	-0.1382			19	0.613	0.287	=		0.0113	0.3400
BJETA526-B	MG/KG	BERYLLIUM	0.5700	0.5700	0.5160	-0.0540			-0.5621	-0.6616	-0.0995			18	0.581	0.204	=		0.0115	0.3440
BJETA523-B	MG/KG	BERYLLIUM	0.5600	0.5600	0.5390	-0.0210			-0.5798	-0.6180	-0.0382			17	0.548	0.122	=		0.0113	0.3380
BJETA522-B	MG/KG	BERYLLIUM	0.5590	0.5590	0.5470	-0.0120			-0.5816	-0.6033	-0.0217			16	0.516	0.040	=		0.0111	0.3340
BJETA506-B	MG/KG	BERYLLIUM	0.5470	0.5470	0.5590	0.0120	0.0076	0.0001	-0.6033	-0.5816	0.0217	0.0076	0.0002	15	0.484	-0.040	=		0.0111	0.3320
BJETA531-B	MG/KG	BERYLLIUM	0.5390	0.5390	0.5600	0.0210	0.0227	0.0005	-0.6180	-0.5798	0.0382	0.0227	0.0009	14	0.452	-0.122	=		0.0113	0.3380
BJETA504-B	MG/KG	BERYLLIUM	0.5160	0.5160	0.5700	0.0540	0.0381	0.0021	-0.6616	-0.5621	0.0995	0.0381	0.0038	13	0.419	-0.204	=		0.0107	0.3220
BJETA512-B	MG/KG	BERYLLIUM	0.5130	0.5130	0.5890	0.0760	0.0537	0.0041	-0.6675	-0.5293	0.1382	0.0537	0.0074	12	0.387	-0.287	=		0.0110	0.3310
BJETA505-B	MG/KG	BERYLLIUM	0.5070	0.5070	0.6390	0.1320	0.0697	0.0092	-0.6792	-0.4479	0.2314	0.0697	0.0161	11	0.355	-0.372	=		0.0109	0.3280
BJETA524-B	MG/KG	BERYLLIUM	0.4820	0.4820	0.6420	0.1600	0.0862	0.0138	-0.7298	-0.4432	0.2866	0.0862	0.0247	10	0.323	-0.460	=		0.0110	0.3300
BJETA514-B	MG/KG	BERYLLIUM	0.4620	0.4620	0.6710	0.2090	0.1036	0.0217	-0.7722	-0.3990	0.3732	0.1036	0.0387	9	0.290	-0.552	=		0.0109	0.3280
BJETA530-B	MG/KG	BERYLLIUM	0.4560	0.4560	0.6800	0.2240	0.1219	0.0273	-0.7853	-0.3857	0.3996	0.1219	0.0487	8	0.258	-0.649	=		0.0112	0.3370
BJETA527-B	MG/KG	BERYLLIUM	0.4350	0.4350	0.6830	0.2480	0.1415	0.0351	-0.8324	-0.3813	0.4511	0.1415	0.0638	7	0.226	-0.753	=		0.0116	0.3480
BJETA510-B	MG/KG	BERYLLIUM	0.4220	0.4220	0.6930	0.2710	0.1630	0.0442	-0.8627	-0.3667	0.4960	0.1630	0.0809	6	0.194	-0.865	=		0.0114	0.3410
BJETA532-B	MG/KG	BERYLLIUM	0.3940	0.3940	0.7030	0.3090	0.1870	0.0578	-0.9314	-0.3524	0.5790	0.1870	0.1083	5	0.161	-0.989	=		0.0111	0.3340
BJETA528-B	MG/KG	BERYLLIUM	0.3650	0.3650	0.7240	0.3590	0.2148	0.0771	-1.0079	-0.3230	0.6849	0.2148	0.1471	4	0.129	-1.131	=		0.0115	0.3440
BJETA502-B	MG/KG	BERYLLIUM	0.3360	0.3360	0.7360	0.4000	0.2487	0.0995	-1.0906	-0.3065	0.7841	0.2487	0.1950	3	0.097	-1.300	TR	F	0.0113	0.3380
BJETA519-B	MG/KG	BERYLLIUM	0.2830	0.2830	0.9030	0.6200	0.2944	0.1825	-1.2623	-0.1020	1.1603	0.2944	0.3416	2	0.065	-1.518	TR	F	0.0116	0.3480
BJETA503-B	MG/KG	BERYLLIUM	0.2080	0.2080	1.0700	0.8620	0.4254	0.3667	-1.5702	0.0677	1.6379	0.4254	0.6968	1	0.032	-1.849	TR	F	0.0105	0.3140
							b =	**0.9415**				b =	**1.7739**							
		0	30																	
		% Non-detect	0.0%			W	0.969				W	0.966								
		Range (Raw)	0.2080	1.0700		W (crit)	0.927				W (crit)	0.927								
							Accept					Accept								
		Mean		0.56290					-0.626											
		Std Dev		0.17757					0.335		0.966		0.969							
		UTL (min 95)		0.957	0.2080	1.0700	0.56290	0.17757	1.126											
		UTL (ave 95)		0.870					0.954											
		Outlier Test (raw)		2.8558	Outlier!															
		Outlier Test (log)		2.0684	None															

4101100

CALCIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA503-B	MG/KG	CALCIUM	347000	347000	751	-346249			12.7571	6.6214	-6.1357			30	0.968	1.849	=		5.8000	22.6000
BJETA502-B	MG/KG	CALCIUM	272000	272000	843	-271157			12.5136	6.7370	-5.7766			29	0.935	1.518	=		47.0000	210.0000
BJETA519-B	MG/KG	CALCIUM	160000	160000	1000	-159000			11.9829	6.9078	-5.0752			28	0.903	1.300	=		2.6100	11.6000
BJETA510-B	MG/KG	CALCIUM	147000	147000	1010	-145990			11.8982	6.9177	-4.9805			27	0.871	1.131	=		2.5600	11.4000
BJETA527-B	MG/KG	CALCIUM	146000	146000	1740	-144260			11.8914	7.4616	-4.4297			26	0.839	0.989	=		2.6100	11.6000
BJETA524-B	MG/KG	CALCIUM	128000	128000	11600	-116400			11.7598	9.3588	-2.4010			25	0.806	0.865	=		2.4800	11.0000
BJETA514-B	MG/KG	CALCIUM	119000	119000	31300	-87700			11.6869	10.3514	-1.3355			24	0.774	0.753	=		2.4600	10.9000
BJETA501-B	MG/KG	CALCIUM	111000	111000	45300	-65700			11.6173	10.7211	-0.8962			23	0.742	0.649	=		2.5600	11.4000
BJETA504-B	MG/KG	CALCIUM	110000	110000	55500	-54500			11.6082	10.9241	-0.6841			22	0.710	0.552	=		2.4200	10.7000
BJETA505-B	MG/KG	CALCIUM	108000	108000	57900	-50100			11.5899	10.9665	-0.6234			21	0.677	0.460	=		2.4600	10.9000
BJETA512-B	MG/KG	CALCIUM	105000	105000	67800	-37200			11.5617	11.1243	-0.4374			20	0.645	0.372	=		2.4800	11.0000
BJETA526-B	MG/KG	CALCIUM	101000	101000	78700	-22300			11.5229	11.2734	-0.2495			19	0.613	0.287	=		2.5800	11.5000
BJETA507-B	MG/KG	CALCIUM	98700	98700	80200	-18500			11.4998	11.2923	-0.2076			18	0.581	0.204	=		2.5500	11.3000
BJETA506-B	MG/KG	CALCIUM	97600	97600	84300	-13300			11.4886	11.3421	-0.1465			17	0.548	0.122	=		2.4900	11.1000
BJETA523-B	MG/KG	CALCIUM	87600	87600	86000	-1600			11.3805	11.3621	-0.0184			16	0.516	0.040	=		2.5300	11.3000
BJETA515-B	MG/KG	CALCIUM	86000	86000	87600	1600	0.0076	12.16	11.3621	11.3805	0.0184	0.0076	0.0001	15	0.484	-0.040	=		2.6100	11.6000
BJETA513-B	MG/KG	CALCIUM	84300	84300	97600	13300	0.0227	301.91	11.3421	11.4886	0.1465	0.0227	0.0033	14	0.452	-0.122	=		2.5600	11.4000
BJETA525-B	MG/KG	CALCIUM	80200	80200	98700	18500	0.0381	704.85	11.2923	11.4998	0.2076	0.0381	0.0079	13	0.419	-0.204	=		2.5000	11.1000
BJETA522-B	MG/KG	CALCIUM	78700	78700	101000	22300	0.0537	1197.51	11.2734	11.5229	0.2495	0.0537	0.0134	12	0.387	-0.287	=		2.5100	11.1000
BJETA520-B	MG/KG	CALCIUM	67800	67800	105000	37200	0.0697	2592.84	11.1243	11.5617	0.4374	0.0697	0.0305	11	0.355	-0.372	=		2.7100	12.0000
BJETA517-B	MG/KG	CALCIUM	57900	57900	108000	50100	0.0862	4318.62	10.9665	11.5899	0.6234	0.0862	0.0537	10	0.323	-0.460	=		2.6200	11.6000
BJETA521-B	MG/KG	CALCIUM	55500	55500	110000	54500	0.1036	5646.20	10.9241	11.6082	0.6841	0.1036	0.0709	9	0.290	-0.552	=		2.6100	11.6000
BJETA518-B	MG/KG	CALCIUM	45300	45300	111000	65700	0.1219	8008.83	10.7211	11.6173	0.8962	0.1219	0.1092	8	0.258	-0.649	=		2.5500	11.3000
BJETA511-B	MG/KG	CALCIUM	31300	31300	119000	87700	0.1415	12409.55	10.3514	11.6869	1.3355	0.1415	0.1890	7	0.226	-0.753	=		2.6500	11.8000
BJETA509-B	MG/KG	CALCIUM	11600	11600	128000	116400	0.1630	18973.20	9.3588	11.7598	2.4010	0.1630	0.3914	6	0.194	-0.865	=		2.6000	11.6000
BJETA529-B	MG/KG	CALCIUM	1740	1740	146000	144260	0.1870	26976.62	7.4616	11.8914	4.4297	0.1870	0.8284	5	0.161	-0.989	=		2.5700	11.4000
BJETA530-B	MG/KG	CALCIUM	1010	1010	147000	145990	0.2148	31358.65	6.9177	11.8982	4.9805	0.2148	1.0698	4	0.129	-1.131	=		2.5300	11.2000
BJETA531-B	MG/KG	CALCIUM	1000	1000	160000	159000	0.2487	39543.30	6.9078	11.9829	5.0752	0.2487	1.2622	3	0.097	-1.300	=		2.5400	11.3000
BJETA528-B	MG/KG	CALCIUM	843	843	272000	271157	0.2944	79828.62	6.7370	12.5136	5.7766	0.2944	1.7006	2	0.065	-1.518	=		2.5800	11.5000
BJETA532-B	MG/KG	CALCIUM	751	751	347000	346249	0.4254	147294.32	6.6214	12.7571	6.1357	0.4254	2.6101	1	0.032	-1.849	=		2.5000	11.1000
							b =	379167.19				b =	8.34							
		0	30																	
		% Non-detect	0.0%			W	0.853				W	0.733								
		Range (Raw)	751.0000	347000.00		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		91394.80					10.671											
		Std Dev		76215.51					1.810		0.733		0.853							
		UTL (min 95)		260593.23	751	347000	91395	76216	2392704.088											
		UTL (ave 95)		223018.98					980496.071											
		Outlier Test (raw)		3.3537	Outlier!															
		Outlier Test (log)		1.1530	None															

4101101

CADMIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA521-B	MG/KG	CADMIUM	1.4800	1.4800	0.0550	-1.4250			0.3920	-2.9004	-3.2925			30	0.968	1.849	=		0.1160	0.1160
BJETA504-B	MG/KG	CADMIUM	0.2280	0.2280	0.0555	-0.1725			-1.4784	-2.8914	-1.4130			29	0.935	1.518	=		0.1070	0.1070
BJETA501-B	MG/KG	CADMIUM	0.2230	0.2230	0.0560	-0.1670			-1.5006	-2.8824	-1.3818			28	0.903	1.300	=		0.1140	0.1140
BJETA510-B	MG/KG	CADMIUM	0.2130	0.2130	0.0565	-0.1565			-1.5465	-2.8735	-1.3271			27	0.871	1.131	=		0.1140	0.1140
BJETA507-B	MG/KG	CADMIUM	0.2120	0.2120	0.0565	-0.1555			-1.5512	-2.8735	-1.3223			26	0.839	0.989	=		0.1130	0.1130
BJETA503-B	MG/KG	CADMIUM	0.2120	0.2120	0.0570	-0.1550			-1.5512	-2.8647	-1.3135			25	0.806	0.865	=		0.1050	0.1050
BJETA524-B	MG/KG	CADMIUM	0.2060	0.2060	0.0575	-0.1485			-1.5799	-2.8560	-1.2761			24	0.774	0.753	=		0.1100	0.1100
BJETA515-B	MG/KG	CADMIUM	0.1950	0.1950	0.0575	-0.1375			-1.6348	-2.8560	-1.2212			23	0.742	0.649	=		0.1160	0.1160
BJETA512-B	MG/KG	CADMIUM	0.1800	0.1800	0.0580	-0.1220			-1.7148	-2.8473	-1.1325			22	0.710	0.552	=		0.1100	0.1100
BJETA513-B	MG/KG	CADMIUM	0.1760	0.1760	0.0600	-0.1160			-1.7373	-2.8134	-1.0761			21	0.677	0.460	=		0.1140	0.1140
BJETA511-B	MG/KG	CADMIUM	0.1630	0.1630	0.1190	-0.0440			-1.8140	-2.1286	-0.3146			20	0.645	0.372	=		0.1180	0.1180
BJETA523-B	MG/KG	CADMIUM	0.1590	0.1590	0.1190	-0.0400			-1.8389	-2.1286	-0.2898			19	0.613	0.287	=		0.1130	0.1130
BJETA509-B	MG/KG	CADMIUM	0.1530	0.1530	0.1220	-0.0310			-1.8773	-2.1037	-0.2264			18	0.581	0.204	=		0.1160	0.1160
BJETA505-B	MG/KG	CADMIUM	0.1470	0.1470	0.1220	-0.0250			-1.9173	-2.1037	-0.1864			17	0.548	0.122	=		0.1090	0.1090
BJETA502-B	MG/KG	CADMIUM	0.1340	0.1340	0.1300	-0.0040			-2.0099	-2.0402	-0.0303			16	0.516	0.040	=		0.1130	0.1130
BJETA527-B	MG/KG	CADMIUM	0.1300	0.1300	0.1340	0.0040	0.0076	0.0000	-2.0402	-2.0099	0.0303	0.0076	0.0002	15	0.484	-0.040	=		0.1160	0.1160
BJETA522-B	MG/KG	CADMIUM	0.1220	0.1220	0.1470	0.0250	0.0227	0.0006	-2.1037	-1.9173	0.1864	0.0227	0.0042	14	0.452	-0.122	=		0.1110	0.1110
BJETA514-B	MG/KG	CADMIUM	0.1220	0.1220	0.1530	0.0310	0.0381	0.0012	-2.1037	-1.8773	0.2264	0.0381	0.0086	13	0.419	-0.204	=		0.1090	0.1090
BJETA517-B	MG/KG	CADMIUM	0.1190	0.1190	0.1590	0.0400	0.0537	0.0021	-2.1286	-1.8389	0.2898	0.0537	0.0156	12	0.387	-0.287	=		0.1160	0.1160
BJETA525-B	MG/KG	CADMIUM	0.1190	0.1190	0.1630	0.0440	0.0697	0.0031	-2.1286	-1.8140	0.3146	0.0697	0.0219	11	0.355	-0.372	=		0.1110	0.1110
BJETA520-B	MG/KG	CADMIUM	0.0000	0.0600	0.1760	0.1160	0.0862	0.0100	-2.8134	-1.7373	1.0761	0.0862	0.0928	10	0.323	-0.460	ND	U	0.1200	0.1200
BJETA519-B	MG/KG	CADMIUM	0.0000	0.0580	0.1800	0.1220	0.1036	0.0126	-2.8473	-1.7148	1.1325	0.1036	0.1173	9	0.290	-0.552	ND	U	0.1160	0.1160
BJETA526-B	MG/KG	CADMIUM	0.0000	0.0575	0.1950	0.1375	0.1219	0.0168	-2.8560	-1.6348	1.2212	0.1219	0.1489	8	0.258	-0.649	ND	U	0.1150	0.1150
BJETA528-B	MG/KG	CADMIUM	0.0000	0.0575	0.2060	0.1485	0.1415	0.0210	-2.8560	-1.5799	1.2761	0.1415	0.1806	7	0.226	-0.753	ND	U	0.1150	0.1150
BJETA529-B	MG/KG	CADMIUM	0.0000	0.0570	0.2120	0.1550	0.1630	0.0253	-2.8647	-1.5512	1.3135	0.1630	0.2141	6	0.194	-0.865	ND	U	0.1140	0.1140
BJETA518-B	MG/KG	CADMIUM	0.0000	0.0565	0.2120	0.1555	0.1870	0.0291	-2.8735	-1.5512	1.3223	0.1870	0.2473	5	0.161	-0.989	ND	U	0.1130	0.1130
BJETA531-B	MG/KG	CADMIUM	0.0000	0.0565	0.2130	0.1565	0.2148	0.0336	-2.8735	-1.5465	1.3271	0.2148	0.2851	4	0.129	-1.131	ND	U	0.1130	0.1130
BJETA530-B	MG/KG	CADMIUM	0.0000	0.0560	0.2230	0.1670	0.2487	0.0415	-2.8824	-1.5006	1.3818	0.2487	0.3437	3	0.097	-1.300	ND	U	0.1120	0.1120
BJETA532-B	MG/KG	CADMIUM	0.0000	0.0555	0.2280	0.1725	0.2944	0.0508	-2.8914	-1.4784	1.4130	0.2944	0.4160	2	0.065	-1.518	ND	U	0.1110	0.1110
BJETA506-B	MG/KG	CADMIUM	0.0000	0.0550	1.4800	1.4250	0.4254	0.6062	-2.9004	0.3920	3.2925	0.4254	1.4006	1	0.032	-1.849	ND	U	0.1100	0.1100
							b =	**0.8539**				b =	**3.4968**						1.1390	
		10	30																0.1139	
		% Non-detect	33.3%			W	0.390				W	0.829								
		Range (Raw)	0.0550	1.4800		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		0.17542					-2.084											
		Std Dev		0.25396					0.713		0.829		0.390							
		UTL (min 95)		0.739	0.0550	1.4800	0.17542	0.25396	0.606											
		UTL (ave 95)		0.614					0.426											
		Outlier Test (raw)		5.1370	Outlier!															
		Outlier Test (log)		3.4730	Outlier!															

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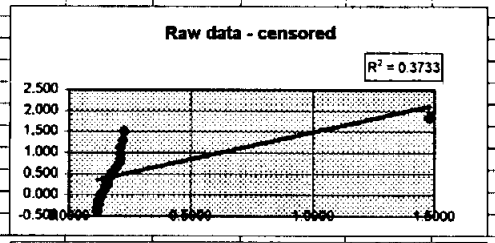
CADMIUM-CENSORED

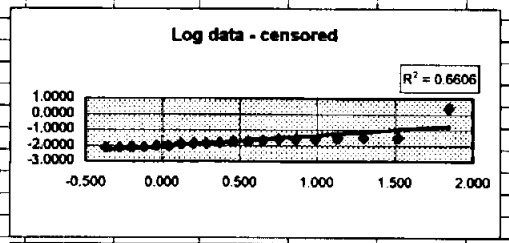
LOCATIO	SAMPLE	UNITS	NAME	VALUE	CALC	RANK	i/(n+1)	mi	RANK	Detects-Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)
BJETA521	BJETA521	MG/KG	CADMIUM	1.4800	1.4800	30	0.968	1.849	20	0.952	1.668391	0.3920
BJETA504	BJETA504	MG/KG	CADMIUM	0.2280	0.2280	29	0.935	1.518	19	0.905	1.309172	-1.4784
BJETA501	BJETA501	MG/KG	CADMIUM	0.2230	0.2230	28	0.903	1.300	18	0.857	1.067569	-1.5006
BJETA510	BJETA510	MG/KG	CADMIUM	0.2130	0.2130	27	0.871	1.131	17	0.810	0.876144	-1.5465
BJETA507	BJETA507	MG/KG	CADMIUM	0.2120	0.2120	26	0.839	0.989	16	0.762	0.712444	-1.5512
BJETA503	BJETA503	MG/KG	CADMIUM	0.2120	0.2120	25	0.806	0.865	15	0.714	0.565949	-1.5512
BJETA524	BJETA524	MG/KG	CADMIUM	0.2060	0.2060	24	0.774	0.753	14	0.667	0.430728	-1.5799
BJETA515	BJETA515	MG/KG	CADMIUM	0.1950	0.1950	23	0.742	0.649	13	0.619	0.30298	-1.6348
BJETA512	BJETA512	MG/KG	CADMIUM	0.1800	0.1800	22	0.710	0.552	12	0.571	0.180012	-1.7148
BJETA513	BJETA513	MG/KG	CADMIUM	0.1760	0.1760	21	0.677	0.460	11	0.524	0.059717	-1.7373
BJETA511	BJETA511	MG/KG	CADMIUM	0.1630	0.1630	20	0.645	0.372	10	0.476	-0.05972	-1.8140
BJETA523	BJETA523	MG/KG	CADMIUM	0.1590	0.1590	19	0.613	0.287	9	0.429	-0.18001	-1.8389
BJETA509	BJETA509	MG/KG	CADMIUM	0.1530	0.1530	18	0.581	0.204	8	0.381	-0.30298	-1.8773
BJETA505	BJETA505	MG/KG	CADMIUM	0.1470	0.1470	17	0.548	0.122	7	0.333	-0.43073	-1.9173
BJETA502	BJETA502	MG/KG	CADMIUM	0.1340	0.1340	16	0.516	0.040	6	0.286	-0.56595	-2.0099
BJETA527	BJETA527	MG/KG	CADMIUM	0.1300	0.1300	15	0.484	-0.040	5	0.238	-0.71244	-2.0402
BJETA522	BJETA522	MG/KG	CADMIUM	0.1220	0.1220	14	0.452	-0.122	4	0.190	-0.87614	-2.1037
BJETA514	BJETA514	MG/KG	CADMIUM	0.1220	0.1220	13	0.419	-0.204	3	0.143	-1.06757	-2.1037
BJETA517	BJETA517	MG/KG	CADMIUM	0.1190	0.1190	12	0.387	-0.287	2	0.095	-1.30917	-2.1286
BJETA525	BJETA525	MG/KG	CADMIUM	0.1190	0.1190	11	0.355	-0.372	1	0.048	-1.66839	-2.1286
BJETA520	BJETA520	MG/KG	CADMIUM	0.0000	0.0600	10	0.323	-0.460				-2.8134
BJETA519	BJETA519	MG/KG	CADMIUM	0.0000	0.0580	9	0.290	-0.552				-2.8473
BJETA526	BJETA526	MG/KG	CADMIUM	0.0000	0.0575	8	0.258	-0.649				-2.8560
BJETA528	BJETA528	MG/KG	CADMIUM	0.0000	0.0575	7	0.226	-0.753				-2.8560
BJETA529	BJETA529	MG/KG	CADMIUM	0.0000	0.0570	6	0.194	-0.865				-2.8647
BJETA518	BJETA518	MG/KG	CADMIUM	0.0000	0.0565	5	0.161	-0.989				-2.8735
BJETA531	BJETA531	MG/KG	CADMIUM	0.0000	0.0565	4	0.129	-1.131				-2.8735
BJETA530	BJETA530	MG/KG	CADMIUM	0.0000	0.0560	3	0.097	-1.300				-2.8824
BJETA532	BJETA532	MG/KG	CADMIUM	0.0000	0.0555	2	0.065	-1.518				-2.8914
BJETA506	BJETA506	MG/KG	CADMIUM	0.0000	0.0550	1	0.032	-1.849				-2.9004

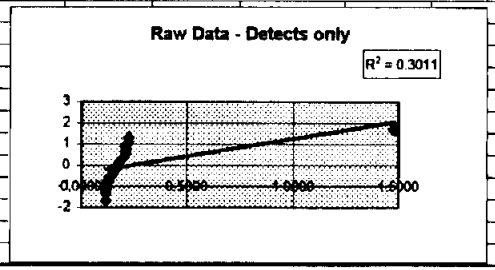
Cohen's Adjustment (log data)

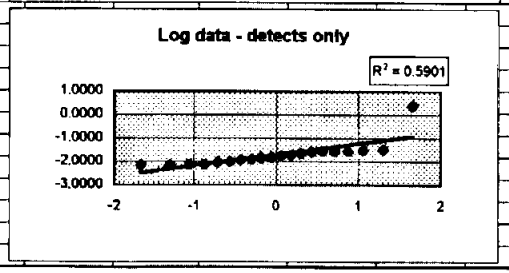
Mean of Detects =	-1.693		
Sample Variance =	0.293		
h=(n-l)/n	0.333		
$\gamma=s_d^2/(y_d-\ln(DL))^2$	1.276		
λ from table	0.660		
$y=y_d-\lambda(y_d-\ln(DL))$	-2.010		
$sy=(s_d^2+l(y_d-DL)^2)^{0}$	0.667		
UTLy=y+kSy	-0.529		
Mean	0.1674	Gilbert	-1.78718
Std Dev	0.1253	Gilbert	-2.07713
UTL	0.5891		
Outlier?	-1.049		
Outlier?	10.48		

Censored more linear than Detects-only
Probability plots support Cohen's assumption that
contaminants are present at concentrations below the detection limit









4101103

CHROMIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-B	MG/KG	CHROMIUM, TOTAL	17.9	17.9	5.7700	-12.1300			2.8848	1.7527	-1.1321			30	0.968	1.849	=		0.6370	8.1000
BJETA501-B	MG/KG	CHROMIUM, TOTAL	16.8	16.8	6.0400	-10.7600			2.8214	1.7984	-1.0230			29	0.935	1.518	=		0.6260	7.9600
BJETA529-B	MG/KG	CHROMIUM, TOTAL	13.1	13.1	7.0400	-6.0600			2.5726	1.9516	-0.6210			28	0.903	1.300	=		0.6290	8.0100
BJETA511-B	MG/KG	CHROMIUM, TOTAL	13.0	13.0	7.0400	-5.9600			2.5649	1.9516	-0.6133			27	0.871	1.131	=		0.6480	8.2400
BJETA517-B	MG/KG	CHROMIUM, TOTAL	11.7	11.7	7.1300	-4.5700			2.4596	1.9643	-0.4953			26	0.839	0.989	=		0.6400	8.1400
BJETA525-B	MG/KG	CHROMIUM, TOTAL	11.0	11.0	7.1800	-3.8200			2.3979	1.9713	-0.4266			25	0.806	0.865	=		0.6110	7.7800
BJETA515-B	MG/KG	CHROMIUM, TOTAL	10.9	10.9	7.9000	-3.0000			2.3888	2.0669	-0.3219			24	0.774	0.753	=		0.6370	8.1100
BJETA518-B	MG/KG	CHROMIUM, TOTAL	10.2	10.2	8.1700	-2.0300			2.3224	2.1005	-0.2219			23	0.742	0.649	=		0.6220	7.9200
BJETA506-B	MG/KG	CHROMIUM, TOTAL	10.1	10.1	8.2700	-1.8300			2.3125	2.1126	-0.1999			22	0.710	0.552	=		0.6090	7.7500
BJETA526-B	MG/KG	CHROMIUM, TOTAL	9.8000	9.8000	8.4000	-1.4000			2.2824	2.1282	-0.1542			21	0.677	0.460	=		0.6300	8.0200
BJETA531-B	MG/KG	CHROMIUM, TOTAL	9.2900	9.2900	8.4100	-0.8800			2.2289	2.1294	-0.0995			20	0.645	0.372	=		0.6200	7.8900
BJETA513-B	MG/KG	CHROMIUM, TOTAL	9.1200	9.1200	8.4100	-0.7100			2.2105	2.1294	-0.0810			19	0.613	0.287	=		0.6260	7.9600
BJETA504-B	MG/KG	CHROMIUM, TOTAL	9.0400	9.0400	8.4200	-0.6200			2.2017	2.1306	-0.0710			18	0.581	0.204	=		0.5910	7.5200
BJETA505-B	MG/KG	CHROMIUM, TOTAL	8.8200	8.8200	8.4400	-0.3800			2.1770	2.1330	-0.0440			17	0.548	0.122	=		0.6020	7.6600
BJETA532-B	MG/KG	CHROMIUM, TOTAL	8.7900	8.7900	8.6400	-0.1500			2.1736	2.1564	-0.0172			16	0.516	0.040	=		0.6120	7.7900
BJETA521-B	MG/KG	CHROMIUM, TOTAL	8.6400	8.6400	8.7900	0.1500	0.0076	0.0011	2.1564	2.1736	0.0172	0.0076	0.0001	15	0.484	-0.040	=		0.6380	8.1200
BJETA522-B	MG/KG	CHROMIUM, TOTAL	8.4400	8.4400	8.8200	0.3800	0.0227	0.0086	2.1330	2.1770	0.0440	0.0227	0.0010	14	0.452	-0.122	=		0.6130	7.8000
BJETA524-B	MG/KG	CHROMIUM, TOTAL	8.4200	8.4200	9.0400	0.6200	0.0381	0.0236	2.1306	2.2017	0.0710	0.0381	0.0027	13	0.419	-0.204	=		0.6060	7.7100
BJETA510-B	MG/KG	CHROMIUM, TOTAL	8.4100	8.4100	9.1200	0.7100	0.0537	0.0381	2.1294	2.2105	0.0810	0.0537	0.0044	12	0.387	-0.287	=		0.6260	7.9600
BJETA507-B	MG/KG	CHROMIUM, TOTAL	8.4100	8.4100	9.2900	0.8800	0.0697	0.0613	2.1294	2.2289	0.0995	0.0697	0.0069	11	0.355	-0.372	=		0.6230	7.9300
BJETA523-B	MG/KG	CHROMIUM, TOTAL	8.4000	8.4000	9.8000	1.4000	0.0862	0.1207	2.1282	2.2824	0.1542	0.0862	0.0133	10	0.323	-0.460	=		0.6190	7.8800
BJETA530-B	MG/KG	CHROMIUM, TOTAL	8.2700	8.2700	10.1000	1.8300	0.1036	0.1896	2.1126	2.3125	0.1999	0.1036	0.0207	9	0.290	-0.552	=		0.6180	7.8700
BJETA512-B	MG/KG	CHROMIUM, TOTAL	8.1700	8.1700	10.2000	2.0300	0.1219	0.2475	2.1005	2.3224	0.2219	0.1219	0.0271	8	0.258	-0.649	=		0.6060	7.7200
BJETA514-B	MG/KG	CHROMIUM, TOTAL	7.9000	7.9000	10.9000	3.0000	0.1415	0.4245	2.0669	2.3888	0.3219	0.1415	0.0455	7	0.226	-0.753	=		0.6020	7.6600
BJETA527-B	MG/KG	CHROMIUM, TOTAL	7.1800	7.1800	11.0000	3.8200	0.1630	0.6227	1.9713	2.3979	0.4266	0.1630	0.0695	6	0.194	-0.865	TR	F	0.6390	8.1300
BJETA503-B	MG/KG	CHROMIUM, TOTAL	7.1300	7.1300	11.7000	4.5700	0.1870	0.8546	1.9643	2.4596	0.4953	0.1870	0.0926	5	0.161	-0.989	TR	F	0.5750	7.3200
BJETA520-B	MG/KG	CHROMIUM, TOTAL	7.0400	7.0400	13.0000	5.9600	0.2148	1.2802	1.9516	2.5649	0.6133	0.2148	0.1317	4	0.129	-1.131	TR	F	0.6630	8.4300
BJETA528-B	MG/KG	CHROMIUM, TOTAL	7.0400	7.0400	13.1000	6.0600	0.2487	1.5071	1.9516	2.5726	0.6210	0.2487	0.1544	3	0.097	-1.300	TR	F	0.6300	8.0200
BJETA502-B	MG/KG	CHROMIUM, TOTAL	6.0400	6.0400	16.8000	10.7600	0.2944	3.1677	1.7984	2.8214	1.0230	0.2944	0.3012	2	0.065	-1.518	TR	F	0.6200	7.8900
BJETA519-B	MG/KG	CHROMIUM, TOTAL	5.7700	5.7700	17.9000	12.1300	0.4254	5.1601	1.7527	2.8848	1.1321	0.4254	0.4816	1	0.032	-1.849	TR	F	0.6380	8.1200
							b =	**13.71**				**b =**	**1.3528**							
		0	30																	
		% Non-detect	0.0%			W	0.847				W	0.937								
		Range (Raw)	5.7700	17.9000		W (crit)	0.927				W (crit)	0.927								
							Reject					Accept								
		Mean		9.49400					2.216											
		Std Dev		2.76593					0.259		0.937		0.847							
		UTL (min 95)		15.634	5.77	17.90	9.49	2.77	16.312											
		UTL (ave 95)		14.271					14.353											
		Outlier Test (raw)		3.0391	Outlier!															
		Outlier Test (log)		2.5780	None															

410110 4

COBALT

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA517-B	MG/KG	COBALT	5.5000	5.5000	0.4395	-5.0605			1.7047	-0.8221	-2.5269			30	0.968	1.849	TR	F	0.9770	8.1400
BJETA515-B	MG/KG	COBALT	5.4800	5.4800	0.4735	-5.0065			1.7011	-0.7476	-2.4487			29	0.935	1.518	TR	F	0.9730	8.1100
BJETA509-B	MG/KG	COBALT	4.7800	4.7800	0.4870	-4.2930			1.5644	-0.7195	-2.2839			28	0.903	1.300	TR	F	0.9720	8.1000
BJETA511-B	MG/KG	COBALT	4.6600	4.6600	1.5400	-3.1200			1.5390	0.4318	-1.1072			27	0.871	1.131	TR	F	0.9890	8.2400
BJETA522-B	MG/KG	COBALT	4.6600	4.6600	1.6600	-3.0000			1.5390	0.5068	-1.0322			26	0.839	0.989	TR	F	0.9360	7.8000
BJETA523-B	MG/KG	COBALT	4.5200	4.5200	1.9900	-2.5300			1.5085	0.6881	-0.8204			25	0.806	0.865	TR	F	0.9460	7.8800
BJETA525-B	MG/KG	COBALT	4.3900	4.3900	2.4800	-1.9100			1.4793	0.9083	-0.5711			24	0.774	0.753	TR	F	0.9330	7.7800
BJETA520-B	MG/KG	COBALT	4.2100	4.2100	2.5300	-1.6800			1.4375	0.9282	-0.5092			23	0.742	0.649	TR	F	1.0100	8.4300
BJETA506-B	MG/KG	COBALT	3.8400	3.8400	2.6400	-1.2000			1.3455	0.9708	-0.3747			22	0.710	0.552	TR	F	0.9300	7.7500
BJETA526-B	MG/KG	COBALT	3.7500	3.7500	2.7300	-1.0200			1.3218	1.0043	-0.3175			21	0.677	0.460	TR	F	0.9620	8.0200
BJETA531-B	MG/KG	COBALT	3.6300	3.6300	2.7500	-0.8800			1.2892	1.0116	-0.2776			20	0.645	0.372	TR	F	0.9470	7.8900
BJETA513-B	MG/KG	COBALT	3.5200	3.5200	2.9000	-0.6200			1.2585	1.0647	-0.1938			19	0.613	0.287	TR	F	0.9560	7.9600
BJETA532-B	MG/KG	COBALT	3.4500	3.4500	3.2000	-0.2500			1.2384	1.1632	-0.0752			18	0.581	0.204	TR	F	0.9340	7.7900
BJETA518-B	MG/KG	COBALT	3.4000	3.4000	3.2500	-0.1500			1.2238	1.1787	-0.0451			17	0.548	0.122	TR	F	0.9500	7.9200
BJETA512-B	MG/KG	COBALT	3.3100	3.3100	3.2500	-0.0600			1.1969	1.1787	-0.0183			16	0.516	0.040	TR	F	0.9260	7.7200
BJETA507-B	MG/KG	COBALT	3.2500	3.2500	3.3100	0.0600	0.0076	0.0005	1.1787	1.1969	0.0183	0.0076	0.0001	15	0.484	-0.040	TR	F	0.9510	7.9300
BJETA505-B	MG/KG	COBALT	3.2500	3.2500	3.4000	0.1500	0.0227	0.0034	1.1787	1.2238	0.0451	0.0227	0.0010	14	0.452	-0.122	TR	F	0.9190	7.6600
BJETA501-B	MG/KG	COBALT	3.2000	3.2000	3.4500	0.2500	0.0381	0.0095	1.1632	1.2384	0.0752	0.0381	0.0029	13	0.419	-0.204	TR	F	0.9560	7.9600
BJETA529-B	MG/KG	COBALT	2.9000	2.9000	3.5200	0.6200	0.0537	0.0333	1.0647	1.2585	0.1938	0.0537	0.0104	12	0.387	-0.287	TR	F	0.9610	8.0100
BJETA521-B	MG/KG	COBALT	2.7500	2.7500	3.6300	0.8800	0.0697	0.0613	1.0116	1.2892	0.2776	0.0697	0.0194	11	0.355	-0.372	TR	F	0.9740	8.1200
BJETA504-B	MG/KG	COBALT	2.7300	2.7300	3.7500	1.0200	0.0862	0.0879	1.0043	1.3218	0.3175	0.0862	0.0274	10	0.323	-0.460	TR	F	0.9020	7.5200
BJETA514-B	MG/KG	COBALT	2.6400	2.6400	3.8400	1.2000	0.1036	0.1243	0.9708	1.3455	0.3747	0.1036	0.0388	9	0.290	-0.552	TR	F	0.9190	7.6600
BJETA528-B	MG/KG	COBALT	2.5300	2.5300	4.2100	1.6800	0.1219	0.2048	0.9282	1.4375	0.5092	0.1219	0.0621	8	0.258	-0.649	TR	F	0.9620	8.0200
BJETA530-B	MG/KG	COBALT	2.4800	2.4800	4.3900	1.9100	0.1415	0.2703	0.9083	1.4793	0.5711	0.1415	0.0808	7	0.226	-0.753	TR	F	0.9440	7.8700
BJETA510-B	MG/KG	COBALT	1.9900	1.9900	4.5200	2.5300	0.1630	0.4124	0.6881	1.5085	0.8204	0.1630	0.1337	6	0.194	-0.865	TR	F	0.9560	7.9600
BJETA524-B	MG/KG	COBALT	1.6600	1.6600	4.6600	3.0000	0.1870	0.5610	0.5068	1.5390	1.0322	0.1870	0.1930	5	0.161	-0.989	TR	F	0.9250	7.7100
BJETA527-B	MG/KG	COBALT	1.5400	1.5400	4.6600	3.1200	0.2148	0.6702	0.4318	1.5390	1.0072	0.2148	0.2378	4	0.129	-1.131	TR	F	0.9760	8.1300
BJETA519-B	MG/KG	COBALT	0.0000	0.4870	4.7800	4.2930	0.2487	1.0677	-0.7195	1.5644	2.2839	0.2487	0.5680	3	0.097	-1.300	ND	U	0.9740	8.1200
BJETA502-B	MG/KG	COBALT	0.0000	0.4735	5.4800	5.0065	0.2944	1.4739	-0.7476	1.7011	2.4487	0.2944	0.7209	2	0.065	-1.518	ND	U	0.9470	7.8900
BJETA503-B	MG/KG	COBALT	0.0000	0.4395	5.5000	5.0605	0.4254	2.1527	-0.8221	1.7047	2.5269	0.4254	1.0749	1	0.032	-1.849	ND	U	0.8790	7.3200
				6.96			b =	**7.1332**				b =	**3.1713**							
		3	30																	
		% Non-detect	10.0%			W	0.954				W	0.762								
		Range (Raw)	0.4395	5.5000		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		3.18067					1.003											
		Std Dev		1.35614					0.674		0.762		0.954							
		UTL (min 95)		6.191	0.4395	5.5000	3.18067	1.35614	12.186											
		UTL (ave 95)		5.523					8.739											
		Outlier Test (raw)		1.7102	None															
		Outlier Test (log)		1.0404	None															

4101105

COPPER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA511-B	MG/KG	COPPER	13.3	13.3	2.6100	-10.6900			2.5878	0.9594	-1.6284			30	0.968	1.849	=		0.1650	7.0700
BJETA509-B	MG/KG	COPPER	13.2	13.2	3.0200	-10.1800			2.5802	1.1053	-1.4750			29	0.935	1.518	=		0.1620	6.9400
BJETA529-B	MG/KG	COPPER	11.4	11.4	3.1700	-8.2300			2.4336	1.1537	-1.2799			28	0.903	1.300	=		0.1600	6.8600
BJETA531-B	MG/KG	COPPER	10.1	10.1	5.9700	-4.1300			2.3125	1.7867	-0.5258			27	0.871	1.131	=		0.1580	6.7600
BJETA525-B	MG/KG	COPPER	10.0	10.0	6.1900	-3.8100			2.3026	1.8229	-0.4797			26	0.839	0.989	=		0.1560	6.6700
BJETA532-B	MG/KG	COPPER	9.91	9.91	6.2900	-3.6200			2.2935	1.8390	-0.4546			25	0.806	0.865	=		0.1560	6.6700
BJETA517-B	MG/KG	COPPER	9.88	9.88	6.7200	-3.1600			2.2905	1.9051	-0.3854			24	0.774	0.753	=		0.1630	6.9800
BJETA522-B	MG/KG	COPPER	9.41	9.41	6.7200	-2.6900			2.2418	1.9051	-0.3367			23	0.742	0.649	=		0.1560	6.6900
BJETA518-B	MG/KG	COPPER	9.33	9.33	6.8700	-2.4600			2.2332	1.9272	-0.3061			22	0.710	0.552	=		0.1580	6.7900
BJETA520-B	MG/KG	COPPER	9.17	9.17	7.1300	-2.0400			2.2159	1.9643	-0.2516			21	0.677	0.460	=		0.1690	7.2300
BJETA501-B	MG/KG	COPPER	9.12	9.12	7.1600	-1.9600			2.2105	1.9685	-0.2420			20	0.645	0.372	=		0.1590	6.8300
BJETA521-B	MG/KG	COPPER	9.08	9.08	7.6700	-1.4100			2.2061	2.0373	-0.1688			19	0.613	0.287	=		0.1620	6.9600
BJETA515-B	MG/KG	COPPER	8.81	8.81	7.8600	-0.9500			2.1759	2.0618	-0.1141			18	0.581	0.204	=		0.1620	6.9500
BJETA530-B	MG/KG	COPPER	8.79	8.79	7.8800	-0.9100			2.1736	2.0643	-0.1093			17	0.548	0.122	=		0.1570	6.7400
BJETA507-B	MG/KG	COPPER	8.58	8.58	8.2400	-0.3400			2.1494	2.1090	-0.0404			16	0.516	0.040	=		0.1590	6.8000
BJETA526-B	MG/KG	COPPER	8.24	8.24	8.5800	0.3400	0.0076	0.0026	2.1090	2.1494	0.0404	0.0076	0.0003	15	0.484	-0.040	=		0.1600	6.8700
BJETA513-B	MG/KG	COPPER	7.88	7.88	8.7900	0.9100	0.0227	0.0207	2.0643	2.1736	0.1093	0.0227	0.0025	14	0.452	-0.122	=		0.1590	6.8300
BJETA523-B	MG/KG	COPPER	7.86	7.86	8.8100	0.9500	0.0381	0.0362	2.0618	2.1759	0.1141	0.0381	0.0043	13	0.419	-0.204	=		0.1580	6.7600
BJETA506-B	MG/KG	COPPER	7.67	7.67	9.0800	1.4100	0.0537	0.0757	2.0373	2.2061	0.1688	0.0537	0.0091	12	0.387	-0.287	=		0.1550	6.6400
BJETA510-B	MG/KG	COPPER	7.16	7.16	9.1200	1.9600	0.0697	0.1366	1.9685	2.2105	0.2420	0.0697	0.0169	11	0.355	-0.372	=		0.1590	6.8300
BJETA512-B	MG/KG	COPPER	7.13	7.13	9.1700	2.0400	0.0862	0.1758	1.9643	2.2159	0.2516	0.0862	0.0217	10	0.323	-0.460	=		0.1540	6.6200
BJETA524-B	MG/KG	COPPER	6.87	6.87	9.3300	2.4600	0.1036	0.2549	1.9272	2.2332	0.3061	0.1036	0.0317	9	0.290	-0.552	=		0.1540	6.6100
BJETA505-B	MG/KG	COPPER	6.72	6.72	9.4100	2.6900	0.1219	0.3279	1.9051	2.2418	0.3367	0.1219	0.0410	8	0.258	-0.649	=		0.1530	6.5600
BJETA504-B	MG/KG	COPPER	6.72	6.72	9.8800	3.1600	0.1415	0.4471	1.9051	2.2905	0.3854	0.1415	0.0545	7	0.226	-0.753	=		0.1500	6.4400
BJETA528-B	MG/KG	COPPER	6.29	6.29	9.9100	3.6200	0.1630	0.5901	1.8390	2.2935	0.4546	0.1630	0.0741	6	0.194	-0.865	TR	F	0.1600	6.8700
BJETA514-B	MG/KG	COPPER	6.19	6.19	10.0000	3.8100	0.1870	0.7125	1.8229	2.3026	0.4797	0.1870	0.0897	5	0.161	-0.989	TR	F	0.1530	6.5600
BJETA527-B	MG/KG	COPPER	5.97	5.97	10.1000	4.1300	0.2148	0.8871	1.7867	2.3125	0.5258	0.2148	0.1129	4	0.129	-1.131	TR	F	0.1630	6.9700
BJETA519-B	MG/KG	COPPER	3.17	3.17	11.4000	8.2300	0.2487	2.0468	1.1537	2.4336	1.2799	0.2487	0.3183	3	0.097	-1.300	TR	F	0.1620	6.9600
BJETA502-B	MG/KG	COPPER	3.02	3.02	13.2000	10.1800	0.2944	2.9970	1.1053	2.5802	1.4750	0.2944	0.4342	2	0.065	-1.518	TR	F	0.1580	6.7600
BJETA503-B	MG/KG	COPPER	2.61	2.61	13.3000	10.6900	0.4254	4.5475	0.9594	2.5878	1.6284	0.4254	0.6927	1	0.032	-1.849	TR	F	0.1460	6.2800
							b =	**13.2585**				b =	**1.9040**							
		0	30																	
		% Non-detect	0.0%			W	0.952				W	0.848								
		Range (Raw)	2.6100	13.3000		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		8.11933					2.034											
		Std Dev		2.52394					0.384		0.848		0.952							
		UTL (min 95)		13.722	2.6100	13.3000	8.11933	2.52394	17.925											
		UTL (ave 95)		12.478					14.834											
		Outlier Test (raw)		2.0526	None															
		Outlier Test (log)		1.4427	None															

410106

IRON

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-B	MG/KG	IRON	16900	16900	3840.00	-13060.00			9.7351	8.2532	-1.4818			30	0.968	1.849	=		0.6710	8.1000
BJETA511-B	MG/KG	IRON	13800	13800	4240.00	-9560.00			9.5324	8.3523	-1.1801			29	0.935	1.518	=		0.6830	8.2400
BJETA529-B	MG/KG	IRON	13700	13700	5740.00	-7960.00			9.5252	8.6552	-0.8699			28	0.903	1.300	=		0.6640	8.0100
BJETA501-B	MG/KG	IRON	12600	12600	6860.00	-5740.00			9.4415	8.8335	-0.6080			27	0.871	1.131	=		0.6600	7.9600
BJETA531-B	MG/KG	IRON	12200	12200	7100.00	-5100.00			9.4092	8.8679	-0.5413			26	0.839	0.989	=		0.6540	7.8900
BJETA517-B	MG/KG	IRON	10900	10900	7350.00	-3550.00			9.2965	8.9025	-0.3941			25	0.806	0.865	=		0.6740	8.1400
BJETA515-B	MG/KG	IRON	10500	10500	7880.00	-2620.00			9.2591	8.9721	-0.2870			24	0.774	0.753	=		0.6720	8.1100
BJETA525-B	MG/KG	IRON	10400	10400	7890.00	-2510.00			9.2496	8.9734	-0.2762			23	0.742	0.649	=		0.6440	7.7800
BJETA530-B	MG/KG	IRON	9770	9770	8300.00	-1470.00			9.1871	9.0240	-0.1631			22	0.710	0.552	=		0.6520	7.8700
BJETA518-B	MG/KG	IRON	9670	9670	8340.00	-1330.00			9.1768	9.0288	-0.1480			21	0.677	0.460	=		0.6560	7.9200
BJETA507-B	MG/KG	IRON	9330	9330	8340.00	-990.00			9.1410	9.0288	-0.1122			20	0.645	0.372	=		0.6570	7.9300
BJETA506-B	MG/KG	IRON	9140	9140	8350.00	-790.00			9.1204	9.0300	-0.0904			19	0.613	0.287	=		0.6420	7.7500
BJETA521-B	MG/KG	IRON	9080	9080	8410.00	-670.00			9.1138	9.0372	-0.0767			18	0.581	0.204	=		0.6730	8.1200
BJETA513-B	MG/KG	IRON	8950	8950	8490.00	-460.00			9.0994	9.0466	-0.0528			17	0.548	0.122	=		0.6600	7.9600
BJETA532-B	MG/KG	IRON	8910	8910	8580.00	-330.00			9.0949	9.0572	-0.0377			16	0.516	0.040	=		0.6450	7.7900
BJETA526-B	MG/KG	IRON	8580	8580	8910.00	330.00	0.0076	2.5080	9.0572	9.0949	0.0377	0.0076	0.0003	15	0.484	-0.040	=		0.6640	8.0200
BJETA520-B	MG/KG	IRON	8490	8490	8950.00	460.00	0.0227	10.4420	9.0466	9.0994	0.0528	0.0227	0.0012	14	0.452	-0.122	=		0.6990	8.4300
BJETA504-B	MG/KG	IRON	8410	8410	9080.00	670.00	0.0381	25.5270	9.0372	9.1138	0.0767	0.0381	0.0029	13	0.419	-0.204	=		0.6230	7.5200
BJETA512-B	MG/KG	IRON	8350	8350	9140.00	790.00	0.0537	42.4230	9.0300	9.1204	0.0904	0.0537	0.0049	12	0.387	-0.287	=		0.6390	7.7200
BJETA510-B	MG/KG	IRON	8340	8340	9330.00	990.00	0.0697	69.0030	9.0288	9.1410	0.1122	0.0697	0.0078	11	0.355	-0.372	=		0.6600	7.9600
BJETA505-B	MG/KG	IRON	8340	8340	9670.00	1330.00	0.0862	114.6460	9.0288	9.1768	0.1480	0.0862	0.0128	10	0.323	-0.460	=		0.6350	7.6600
BJETA522-B	MG/KG	IRON	8300	8300	9770.00	1470.00	0.1036	152.2920	9.0240	9.1871	0.1631	0.1036	0.0169	9	0.290	-0.552	=		0.6470	7.8000
BJETA523-B	MG/KG	IRON	7890	7890	10400.00	2510.00	0.1219	305.9690	8.9734	9.2496	0.2762	0.1219	0.0337	8	0.258	-0.649	=		0.6530	7.8800
BJETA514-B	MG/KG	IRON	7880	7880	10500.00	2620.00	0.1415	370.7300	8.9721	9.2591	0.2870	0.1415	0.0406	7	0.226	-0.753	=		0.6350	7.6600
BJETA528-B	MG/KG	IRON	7350	7350	10900.00	3550.00	0.1630	578.6500	8.9025	9.2965	0.3941	0.1630	0.0642	6	0.194	-0.865	=		0.6640	8.0200
BJETA524-B	MG/KG	IRON	7100	7100	12200.00	5100.00	0.1870	953.7000	8.8679	9.4092	0.5413	0.1870	0.1012	5	0.161	-0.989	=		0.6390	7.7100
BJETA527-B	MG/KG	IRON	6860	6860	12600.00	5740.00	0.2148	1232.9520	8.8335	9.4415	0.6080	0.2148	0.1306	4	0.129	-1.131	=		0.6740	8.1300
BJETA502-B	MG/KG	IRON	5740	5740	13700.00	7960.00	0.2487	1979.6520	8.6552	9.5252	0.8699	0.2487	0.2164	3	0.097	-1.300	=		0.6540	7.8900
BJETA519-B	MG/KG	IRON	4240	4240	13800.00	9560.00	0.2944	2814.4640	8.3523	9.5324	1.1801	0.2944	0.3474	2	0.065	-1.518	=		0.6730	8.1200
BJETA503-B	MG/KG	IRON	3840	3840	16900.00	13060.00	0.4254	5555.7240	8.2532	9.7351	1.4818	0.4254	0.6304	1	0.032	-1.849	=		0.6070	7.3200
							b =	**14208.68**				b =	**1.6112**							
		0	30																	
		% Non-detect	0.0%			W	0.941				W	0.936								
		Range (Raw)	3840	16900		W (crit)	0.927				W (crit)	0.927								
							Accept					Accept								
		Mean		9185.33333					9.081											
		Std Dev		2720.25954					0.309		0.936		0.941							
		UTL (min 95)		15224.310	3840.00	16900.00	9185.33	2720.26	17468.993											
		UTL (ave 95)		13883.222					14998.215											
		Outlier Test (raw)		2.8360	Outlier!															
		Outlier Test (log)		2.1129	None															

4101107

LEAD

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA509-B	MG/KG	LEAD	14.3	14.3	0.0730	-14.2270			2.6603	-2.6173	-5.2776			30	0.968	1.849	=		0.1620	0.5790
BJETA511-B	MG/KG	LEAD	11.5	11.5	0.0810	-11.4190			2.4423	-2.5133	-4.9557			29	0.935	1.518	=		0.1650	0.5890
BJETA501-B	MG/KG	LEAD	10.2	10.2	1.0000	-9.2000			2.3224	0.0000	-2.3224			28	0.903	1.300	=		0.1590	0.5690
BJETA518-B	MG/KG	LEAD	8.2200	8.2200	1.1600	-7.0600			2.1066	0.1484	-1.9582			27	0.871	1.131	=		0.1580	0.5660
BJETA525-B	MG/KG	LEAD	7.7000	7.7000	1.5700	-6.1300			2.0412	0.4511	-1.5901			26	0.839	0.989	=		0.1560	0.5560
BJETA521-B	MG/KG	LEAD	7.6000	7.6000	1.5900	-6.0100			2.0281	0.4637	-1.5644			25	0.806	0.865	=		0.1620	0.5800
BJETA520-B	MG/KG	LEAD	7.1400	7.1400	1.8300	-5.3100			1.9657	0.6043	-1.3614			24	0.774	0.753	=		0.1690	0.6020
BJETA513-B	MG/KG	LEAD	6.9700	6.9700	2.1300	-4.8400			1.9416	0.7561	-1.1855			23	0.742	0.649	=		0.1590	0.5690
BJETA523-B	MG/KG	LEAD	6.6100	6.6100	3.1900	-3.4200			1.8886	1.1600	-0.7286			22	0.710	0.552	=		0.1580	0.5630
BJETA507-B	MG/KG	LEAD	6.4000	6.4000	4.2600	-2.1400			1.8563	1.4493	-0.4070			21	0.677	0.460	=		0.1590	0.5660
BJETA529-B	MG/KG	LEAD	6.3800	6.3800	4.4800	-1.9000			1.6532	1.4996	-0.3535			20	0.645	0.372	=		0.1600	0.5720
BJETA522-B	MG/KG	LEAD	6.2300	6.2300	5.0400	-1.1900			1.8294	1.6174	-0.2120			19	0.613	0.287	=		0.1560	0.5570
BJETA532-B	MG/KG	LEAD	5.7000	5.7000	5.2200	-0.4800			1.7405	1.6525	-0.0880			18	0.581	0.204	=		0.1560	0.5560
BJETA517-B	MG/KG	LEAD	5.5600	5.5600	5.2900	-0.2700			1.7156	1.6658	-0.0498			17	0.548	0.122	=		0.1630	0.5810
BJETA526-B	MG/KG	LEAD	5.5300	5.5300	5.4500	-0.0800			1.7102	1.6956	-0.0146			16	0.516	0.040	=		0.1600	0.5730
BJETA515-B	MG/KG	LEAD	5.4500	5.4500	5.5300	0.0800	0.0076	0.0006	1.6956	1.7102	0.0146	0.0076	0.0001	15	0.484	-0.040	=		0.1620	0.5790
BJETA531-B	MG/KG	LEAD	5.2900	5.2900	5.5600	0.2700	0.0227	0.0061	1.6658	1.7156	0.0498	0.0227	0.0011	14	0.452	-0.122	=		0.1580	0.5640
BJETA530-B	MG/KG	LEAD	5.2200	5.2200	5.7000	0.4800	0.0381	0.0183	1.6525	1.7405	0.0880	0.0381	0.0034	13	0.419	-0.204	=		0.1570	0.5620
BJETA512-B	MG/KG	LEAD	5.0400	5.0400	6.2300	1.1900	0.0537	0.0639	1.6174	1.8294	0.2120	0.0537	0.0114	12	0.387	-0.287	=		0.1540	0.5510
BJETA528-B	MG/KG	LEAD	4.4800	4.4800	6.3800	1.9000	0.0697	0.1324	1.4996	1.8532	0.3535	0.0697	0.0246	11	0.355	-0.372	=		0.1600	0.5730
BJETA510-B	MG/KG	LEAD	4.2600	4.2600	6.4000	2.1400	0.0862	0.1845	1.4493	1.8563	0.4070	0.0862	0.0351	10	0.323	-0.460	=		0.1590	0.5690
BJETA524-B	MG/KG	LEAD	3.1900	3.1900	6.6100	3.4200	0.1036	0.3543	1.1600	1.8886	0.7286	0.1036	0.0755	9	0.290	-0.552	=		0.1540	0.5510
BJETA514-B	MG/KG	LEAD	2.1300	2.1300	6.9700	4.8400	0.1219	0.5900	0.7561	1.9416	1.1855	0.1219	0.1445	8	0.258	-0.649	=		0.1530	0.5470
BJETA506-B	MG/KG	LEAD	1.8300	1.8300	7.1400	5.3100	0.1415	0.7514	0.6043	1.9657	1.3614	0.1415	0.1926	7	0.226	-0.753	=		0.1530	0.5540
BJETA527-B	MG/KG	LEAD	1.5900	1.5900	7.6000	6.0100	0.1630	0.9796	0.4637	2.0281	1.5644	0.1630	0.2550	6	0.194	-0.865	=		0.1630	0.5810
BJETA502-B	MG/KG	LEAD	1.5700	1.5700	7.7000	6.1300	0.1870	1.1463	0.4511	2.0412	1.5901	0.1870	0.2974	5	0.161	-0.989	=		0.1580	0.5640
BJETA505-B	MG/KG	LEAD	1.1600	1.1600	8.2200	7.0600	0.2148	1.5165	0.1484	2.1066	1.9582	0.2148	0.4206	4	0.129	-1.131	=		0.1530	0.5470
BJETA504-B	MG/KG	LEAD	1.0000	1.0000	10.2000	9.2000	0.2487	2.2880	0.0000	2.3224	2.3224	0.2487	0.5776	3	0.097	-1.300	=		0.1500	0.5370
BJETA519-B	MG/KG	LEAD	0.0000	0.0810	11.5000	11.4190	0.2944	3.3618	-2.5133	2.4423	4.9557	0.2944	1.4589	2	0.065	-1.518	ND	U	0.1620	0.5800
BJETA503-B	MG/KG	LEAD	0.0000	0.0730	14.3000	14.2270	0.4254	6.0522	-2.6173	2.6603	5.2776	0.4254	2.2451	1	0.032	-1.849	ND	U	0.1460	0.5230
							b =	17.45				b =	5.74							
		2	30																	
		% Non-detect	6.7%			W	0.949				W	0.746								
		Range (Raw)	0.0730	14.3000		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		5.28013					1.271											
		Std Dev		3.32538					1.235		0.746		0.949							
		UTL (min 95)		12.662	0.0730	14.3000	5.28013	3.32538	55.315											
		UTL (ave 95)		11.023					30.089											
		Outlier Test (raw)		2.7124	None															
		Outlier Test (log)		1.1247	None															

4101108

MAGNESIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA501-B	MG/KG	MAGNESIUM	2420	2420	292.00	-2128.00			7.7915	5.6768	-2.1148			30	0.968	1.849	=		6.29	34.10
BJETA524-B	MG/KG	MAGNESIUM	2420	2420	325.00	-2095.00			7.7915	5.7838	-2.0077			29	0.935	1.518	=		6.09	33.00
BJETA511-B	MG/KG	MAGNESIUM	2120	2120	421.00	-1699.00			7.6592	6.0426	-1.6165			28	0.903	1.300	=		6.51	35.30
BJETA509-B	MG/KG	MAGNESIUM	2100	2100	493.00	-1607.00			7.6497	6.2005	-1.4492			27	0.871	1.131	=		6.40	34.70
BJETA515-B	MG/KG	MAGNESIUM	1970	1970	550.00	-1420.00			7.5858	6.3099	-1.2759			26	0.839	0.989	=		6.41	34.80
BJETA507-B	MG/KG	MAGNESIUM	1970	1970	1290.00	-680.00			7.5858	7.1624	-0.4234			25	0.806	0.865	=		6.26	34.00
BJETA514-B	MG/KG	MAGNESIUM	1940	1940	1470.00	-470.00			7.5704	7.2930	-0.2774			24	0.774	0.753	=		6.05	32.80
BJETA522-B	MG/KG	MAGNESIUM	1880	1880	1490.00	-390.00			7.5390	7.3065	-0.2325			23	0.742	0.649	=		6.16	33.40
BJETA512-B	MG/KG	MAGNESIUM	1880	1880	1540.00	-340.00			7.5390	7.3395	-0.1995			22	0.710	0.552	=		6.10	33.10
BJETA503-B	MG/KG	MAGNESIUM	1860	1860	1560.00	-300.00			7.5283	7.3524	-0.1759			21	0.677	0.460	=		5.78	31.40
BJETA519-B	MG/KG	MAGNESIUM	1850	1850	1620.00	-230.00			7.5229	7.3902	-0.1328			20	0.645	0.372	=		6.42	34.80
BJETA525-B	MG/KG	MAGNESIUM	1830	1830	1620.00	-210.00			7.5121	7.3902	-0.1219			19	0.613	0.287	=		6.14	33.30
BJETA506-B	MG/KG	MAGNESIUM	1780	1780	1630.00	-150.00			7.4844	7.3963	-0.0880			18	0.581	0.204	=		6.12	33.20
BJETA526-B	MG/KG	MAGNESIUM	1760	1760	1640.00	-120.00			7.4731	7.4025	-0.0706			17	0.548	0.122	=		6.33	34.40
BJETA520-B	MG/KG	MAGNESIUM	1700	1700	1660.00	-40.00			7.4384	7.4146	-0.0238			16	0.516	0.040	=		6.66	36.10
BJETA523-B	MG/KG	MAGNESIUM	1660	1660	1700.00	40.00	0.0076	0.3040	7.4146	7.4384	0.0238	0.0076	0.0002	15	0.484	-0.040	=		6.23	33.80
BJETA510-B	MG/KG	MAGNESIUM	1640	1640	1760.00	120.00	0.0227	2.7240	7.4025	7.4731	0.0706	0.0227	0.0016	14	0.452	-0.122	=		6.29	34.10
BJETA513-B	MG/KG	MAGNESIUM	1630	1630	1780.00	150.00	0.0381	5.7150	7.3963	7.4844	0.0880	0.0381	0.0034	13	0.419	-0.204	=		6.29	34.10
BJETA518-B	MG/KG	MAGNESIUM	1620	1620	1830.00	210.00	0.0537	11.2770	7.3902	7.5121	0.1219	0.0537	0.0065	12	0.387	-0.287	=		6.26	33.90
BJETA502-B	MG/KG	MAGNESIUM	1620	1620	1850.00	230.00	0.0697	16.0310	7.3902	7.5229	0.1328	0.0697	0.0093	11	0.355	-0.372	=		6.23	33.80
BJETA505-B	MG/KG	MAGNESIUM	1560	1560	1860.00	300.00	0.0862	25.8600	7.3524	7.5283	0.1759	0.0862	0.0152	10	0.323	-0.460	=		6.05	32.80
BJETA527-B	MG/KG	MAGNESIUM	1540	1540	1880.00	340.00	0.1036	35.2240	7.3395	7.5390	0.1995	0.1036	0.0207	9	0.290	-0.552	=		6.42	34.80
BJETA517-B	MG/KG	MAGNESIUM	1490	1490	1880.00	390.00	0.1219	47.5410	7.3065	7.5390	0.2325	0.1219	0.0283	8	0.258	-0.649	=		6.43	34.90
BJETA504-B	MG/KG	MAGNESIUM	1470	1470	1940.00	470.00	0.1415	66.5050	7.2930	7.5704	0.2774	0.1415	0.0393	7	0.226	-0.753	=		5.94	32.20
BJETA521-B	MG/KG	MAGNESIUM	1290	1290	1970.00	680.00	0.1630	110.8400	7.1624	7.5858	0.4234	0.1630	0.0690	6	0.194	-0.865	=		6.42	34.80
BJETA529-B	MG/KG	MAGNESIUM	550	550	1970.00	1420.00	0.1870	265.5400	6.3099	7.5858	1.2759	0.1870	0.2386	5	0.161	-0.989	=		6.33	34.30
BJETA528-B	MG/KG	MAGNESIUM	493	493	2100.00	1607.00	0.2148	345.1836	6.2005	7.6497	1.4492	0.2148	0.3113	4	0.129	-1.131	=		6.33	34.40
BJETA531-B	MG/KG	MAGNESIUM	421	421	2120.00	1699.00	0.2487	422.5413	6.0426	7.6592	1.6165	0.2487	0.4020	3	0.097	-1.300	=		6.23	33.80
BJETA532-B	MG/KG	MAGNESIUM	325	325	2420.00	2095.00	0.2944	616.7680	5.7838	7.7915	2.0077	0.2944	0.5911	2	0.065	-1.518	=		6.15	33.40
BJETA530-B	MG/KG	MAGNESIUM	292	292	2420.00	2128.00	0.4254	905.2512	5.6768	7.7915	2.1148	0.4254	0.8996	1	0.032	-1.849	=		6.21	33.70
							b =	**2877.3051**				**b =**	**2.6360**							
		0	30																	
		% Non-detect	0.0%			W	0.843				W	0.697								
		Range (Raw)	292.0000	2420.0000		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		1569.36667					7.238											
		Std Dev		582.08682					0.586		0.697		0.843							
		UTL (min 95)		2861.599	292.00	2420.00	1569.36667	582.08682	5114.120											
		UTL (ave 95)		2574.631					3829.999											
		Outlier Test (raw)		1.4614	None															
		Outlier Test (log)		0.9442	None															

4101109

MANGANESE

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA523-B	MG/KG	MANGANESE	317	317	28.7000	-288.3000			5.7589	3.3569	-2.4020			30	0.968	1.849	=		0.1350	2.2500
BJETA517-B	MG/KG	MANGANESE	315	315	45.6000	-269.4000			5.7526	3.8199	-1.9327			29	0.935	1.518	=		0.1400	2.3300
BJETA520-B	MG/KG	MANGANESE	301	301	47.1000	-253.9000			5.7071	3.8523	-1.8548			28	0.903	1.300	=		0.1450	2.4100
BJETA506-B	MG/KG	MANGANESE	276	276	51.2000	-224.8000			5.6204	3.9357	-1.6847			27	0.871	1.131	=		0.1330	2.2100
BJETA511-B	MG/KG	MANGANESE	258	258	83.9000	-174.1000			5.5530	4.4296	-1.1233			26	0.839	0.989	=		0.1410	2.3600
BJETA525-B	MG/KG	MANGANESE	247	247	85.8000	-161.2000			5.5094	4.4520	-1.0574			25	0.806	0.865	=		0.1330	2.2200
BJETA505-B	MG/KG	MANGANESE	243	243	88.3000	-154.7000			5.4931	4.4807	-1.0123			24	0.774	0.753	=		0.1310	2.1900
BJETA526-B	MG/KG	MANGANESE	216	216	101.0000	-115.0000			5.3753	4.6151	-0.7602			23	0.742	0.649	=		0.1370	2.2900
BJETA507-B	MG/KG	MANGANESE	215	215	110.0000	-105.0000			5.3706	4.7005	-0.6702			22	0.710	0.552	=		0.1360	2.2700
BJETA509-B	MG/KG	MANGANESE	211	211	118.0000	-93.0000			5.3519	4.7707	-0.5812			21	0.677	0.460	=		0.1390	2.3100
BJETA518-B	MG/KG	MANGANESE	199	199	148.0000	-51.0000			5.2933	4.9972	-0.2961			20	0.645	0.372	=		0.1360	2.2600
BJETA514-B	MG/KG	MANGANESE	193	193	158.0000	-35.0000			5.2627	5.0626	-0.2001			19	0.613	0.287	=		0.1310	2.1900
BJETA501-B	MG/KG	MANGANESE	186	186	162.0000	-24.0000			5.2257	5.0876	-0.1382			18	0.581	0.204	=		0.1370	2.2800
BJETA521-B	MG/KG	MANGANESE	177	177	167.0000	-10.0000			5.1761	5.1180	-0.0582			17	0.548	0.122	=		0.1390	2.3200
BJETA515-B	MG/KG	MANGANESE	172	172	168.0000	-4.0000			5.1475	5.1240	-0.0235			16	0.516	0.040	=		0.1390	2.3200
BJETA504-B	MG/KG	MANGANESE	168	168	172.0000	4.0000	0.0076	0.0304	5.1240	5.1475	0.0235	0.0076	0.0002	15	0.484	-0.040	=		0.1290	2.1500
BJETA513-B	MG/KG	MANGANESE	167	167	177.0000	10.0000	0.0227	0.2270	5.1180	5.1761	0.0582	0.0227	0.0013	14	0.452	-0.122	=		0.1370	2.2800
BJETA512-B	MG/KG	MANGANESE	162	162	186.0000	24.0000	0.0381	0.9144	5.0876	5.2257	0.1382	0.0381	0.0053	13	0.419	-0.204	=		0.1320	2.2100
BJETA522-B	MG/KG	MANGANESE	158	158	193.0000	35.0000	0.0537	1.8795	5.0626	5.2627	0.2001	0.0537	0.0107	12	0.387	-0.287	=		0.1340	2.2300
BJETA510-B	MG/KG	MANGANESE	148	148	199.0000	51.0000	0.0697	3.5547	4.9972	5.2933	0.2961	0.0697	0.0206	11	0.355	-0.372	=		0.1370	2.2800
BJETA532-B	MG/KG	MANGANESE	118	118	211.0000	93.0000	0.0862	8.0166	4.7707	5.3519	0.5812	0.0862	0.0501	10	0.323	-0.460	=		0.1330	2.2200
BJETA524-B	MG/KG	MANGANESE	110	110	215.0000	105.0000	0.1036	10.8780	4.7005	5.3706	0.6702	0.1036	0.0694	9	0.290	-0.552	=		0.1320	2.2000
BJETA503-B	MG/KG	MANGANESE	101	101	216.0000	115.0000	0.1219	14.0185	4.6151	5.3753	0.7602	0.1219	0.0927	8	0.258	-0.649	=		0.1260	2.0900
BJETA519-B	MG/KG	MANGANESE	88.3	88.3	243.0000	154.7000	0.1415	21.8901	4.4807	5.4931	1.0123	0.1415	0.1432	7	0.226	-0.753	=		0.1390	2.3200
BJETA529-B	MG/KG	MANGANESE	85.8	85.8	247.0000	161.2000	0.1630	26.2756	4.4520	5.5094	1.0574	0.1630	0.1724	6	0.194	-0.865	=		0.1370	2.2900
BJETA527-B	MG/KG	MANGANESE	83.9	83.9	258.0000	174.1000	0.1870	32.5567	4.4296	5.5530	1.1233	0.1870	0.2101	5	0.161	-0.989	=		0.1390	2.3200
BJETA531-B	MG/KG	MANGANESE	51.2	51.2	276.0000	224.8000	0.2148	48.2870	3.9357	5.6204	1.6847	0.2148	0.3619	4	0.129	-1.131	=		0.1350	2.2500
BJETA528-B	MG/KG	MANGANESE	47.1	47.1	301.0000	253.9000	0.2487	63.1449	3.8523	5.7071	1.8548	0.2487	0.4613	3	0.097	-1.300	=		0.1370	2.2900
BJETA502-B	MG/KG	MANGANESE	45.6	45.6	315.0000	269.4000	0.2944	79.3114	3.8199	5.7526	1.9327	0.2944	0.5690	2	0.065	-1.518	=		0.1350	2.2500
BJETA530-B	MG/KG	MANGANESE	28.7	28.7	317.0000	288.3000	0.4254	122.6428	3.3569	5.7589	2.4020	0.4254	1.0218	1	0.032	-1.849	=		0.1350	2.2500
							b =	433.63				b =	3.19							
		0	30																	
		% Non-detect	0.0%			W	0.964				W	0.904								
		Range (Raw)	28.7000	317.0000		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		169.62000					4.980											
		Std Dev		82.02950					0.623		0.904		0.964							
		UTL (min 95)		351.725	28.7000	317.0000	169.62000	82.02950	579.937											
		UTL (ave 95)		311.285					426.587											
		Outlier Test (raw)		1.7967	None															
		Outlier Test (log)		1.2504	None															
		UTL 95,99		420.958																

4101110

MERCURY

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
BJETA520	BJETA520-B	MG/KG	MERCURY	0.0000	0.0175	ND	U	0.0350	0.1200
BJETA509	BJETA509-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA511	BJETA511-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA515	BJETA515-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA517	BJETA517-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA519	BJETA519-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA521	BJETA521-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA527	BJETA527-B	MG/KG	MERCURY	0.0000	0.0170	ND	U	0.0340	0.1200
BJETA501	BJETA501-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA502	BJETA502-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA507	BJETA507-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA510	BJETA510-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA513	BJETA513-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA518	BJETA518-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA523	BJETA523-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA526	BJETA526-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA528	BJETA528-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA529	BJETA529-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA530	BJETA530-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA531	BJETA531-B	MG/KG	MERCURY	0.0000	0.0165	ND	U	0.0330	0.1100
BJETA505	BJETA505-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA506	BJETA506-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA512	BJETA512-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA514	BJETA514-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA522	BJETA522-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA524	BJETA524-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA525	BJETA525-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA532	BJETA532-B	MG/KG	MERCURY	0.0000	0.0160	ND	U	0.0320	0.1100
BJETA504	BJETA504-B	MG/KG	MERCURY	0.0000	0.0155	ND	U	0.0310	0.1100
BJETA503	BJETA503-B	MG/KG	MERCURY	0.0000	0.0150	ND	U	0.0300	0.1000
			30	30					
			% Non-detect	100.0%					
			Range (Raw)	0.0150	0.0175				
			Mean		0.01643				
			Std Dev		0.00052				

4101111

MOLYBDENUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
BJETA519	BJETA519-B	MG/KG	MOLYBDENUM	1.9300	1.9300	TR	F	0.7080	9.2800
BJETA523	BJETA523-B	MG/KG	MOLYBDENUM	1.3200	1.3200	TR	F	0.6870	9.0100
BJETA520	BJETA520-B	MG/KG	MOLYBDENUM	1.2400	1.2400	TR	F	0.7350	9.6400
BJETA531	BJETA531-B	MG/KG	MOLYBDENUM	0.9680	0.9680	TR	F	0.6880	9.0200
BJETA518	BJETA518-B	MG/KG	MOLYBDENUM	0.9600	0.9600	TR	F	0.6900	9.0500
BJETA501	BJETA501-B	MG/KG	MOLYBDENUM	0.7970	0.7970	TR	F	0.6940	9.1000
BJETA511	BJETA511-B	MG/KG	MOLYBDENUM	0.0000	0.3590	ND	U	0.7180	9.4200
BJETA517	BJETA517-B	MG/KG	MOLYBDENUM	0.0000	0.3545	ND	U	0.7090	9.3000
BJETA521	BJETA521-B	MG/KG	MOLYBDENUM	0.0000	0.3540	ND	U	0.7080	9.2800
BJETA527	BJETA527-B	MG/KG	MOLYBDENUM	0.0000	0.3540	ND	U	0.7080	9.2900
BJETA515	BJETA515-B	MG/KG	MOLYBDENUM	0.0000	0.3535	ND	U	0.7070	9.2700
BJETA509	BJETA509-B	MG/KG	MOLYBDENUM	0.0000	0.3530	ND	U	0.7060	9.2600
BJETA526	BJETA526-B	MG/KG	MOLYBDENUM	0.0000	0.3495	ND	U	0.6990	9.1600
BJETA528	BJETA528-B	MG/KG	MOLYBDENUM	0.0000	0.3495	ND	U	0.6990	9.1600
BJETA529	BJETA529-B	MG/KG	MOLYBDENUM	0.0000	0.3490	ND	U	0.6980	9.1500
BJETA510	BJETA510-B	MG/KG	MOLYBDENUM	0.0000	0.3470	ND	U	0.6940	9.1000
BJETA513	BJETA513-B	MG/KG	MOLYBDENUM	0.0000	0.3470	ND	U	0.6940	9.1000
BJETA507	BJETA507-B	MG/KG	MOLYBDENUM	0.0000	0.3455	ND	U	0.6910	9.0600
BJETA502	BJETA502-B	MG/KG	MOLYBDENUM	0.0000	0.3440	ND	U	0.6880	9.0200
BJETA530	BJETA530-B	MG/KG	MOLYBDENUM	0.0000	0.3425	ND	U	0.6850	8.9900
BJETA522	BJETA522-B	MG/KG	MOLYBDENUM	0.0000	0.3400	ND	U	0.6800	8.9200
BJETA532	BJETA532-B	MG/KG	MOLYBDENUM	0.0000	0.3395	ND	U	0.6790	8.9000
BJETA525	BJETA525-B	MG/KG	MOLYBDENUM	0.0000	0.3390	ND	U	0.6780	8.8900
BJETA506	BJETA506-B	MG/KG	MOLYBDENUM	0.0000	0.3380	ND	U	0.6760	8.8600
BJETA512	BJETA512-B	MG/KG	MOLYBDENUM	0.0000	0.3365	ND	U	0.6730	8.8200
BJETA524	BJETA524-B	MG/KG	MOLYBDENUM	0.0000	0.3360	ND	U	0.6720	8.8100
BJETA505	BJETA505-B	MG/KG	MOLYBDENUM	0.0000	0.3335	ND	U	0.6670	8.7500
BJETA514	BJETA514-B	MG/KG	MOLYBDENUM	0.0000	0.3335	ND	U	0.6670	8.7500
BJETA504	BJETA504-B	MG/KG	MOLYBDENUM	0.0000	0.3275	ND	U	0.6550	8.5900
BJETA503	BJETA503-B	MG/KG	MOLYBDENUM	0.0000	0.3190	ND	U	0.6380	8.3700
			24	30					
			% Non-detect	80.0%					
			Range (Raw)	0.3190	1.9300				
			Mean		0.51532				
			Std Dev		0.38803				

4101112

NICKEL

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA511-B	MG/KG	NICKEL	22.1	22.1	4.1700	-17.9300			3.0956	1.4279	-1.6677			30	0.968	1.849	=		0.9420	4.7100
BJETA509-B	MG/KG	NICKEL	19.3	19.3	4.4800	-14.8200			2.9601	1.4996	-1.4605			29	0.935	1.518	=		0.9260	4.6300
BJETA501-B	MG/KG	NICKEL	12.6	12.6	5.0500	-7.5500			2.5337	1.6194	-0.9143			28	0.903	1.300	=		0.9100	4.5500
BJETA517-B	MG/KG	NICKEL	11.3	11.3	5.1200	-6.1600			2.4248	1.6332	-0.7916			27	0.871	1.131	=		0.4650	2.3300
BJETA515-B	MG/KG	NICKEL	11.0	11.0	5.8400	-5.1600			2.3979	1.7647	-0.6332			26	0.839	0.989	=		0.4630	2.3200
BJETA521-B	MG/KG	NICKEL	10.8	10.8	5.8400	-4.9600			2.3795	1.7647	-0.6148			25	0.806	0.865	=		1.1600	5.8000
BJETA513-B	MG/KG	NICKEL	10.6	10.6	6.2100	-4.3900			2.3609	1.8262	-0.5347			24	0.774	0.753	=		1.1400	5.6900
BJETA523-B	MG/KG	NICKEL	10.6	10.6	6.5200	-4.0800			2.3609	1.8749	-0.4860			23	0.742	0.649	=		0.8820	4.4100
BJETA512-B	MG/KG	NICKEL	10.4	10.4	7.3000	-3.1000			2.3418	1.9879	-0.3539			22	0.710	0.552	=		0.9640	4.8200
BJETA520-B	MG/KG	NICKEL	10.2	10.2	7.3600	-2.8400			2.3224	1.9961	-0.3263			21	0.677	0.460	=		0.8750	4.3800
BJETA514-B	MG/KG	NICKEL	10.2	10.2	7.4700	-2.7300			2.3224	2.0109	-0.3115			20	0.645	0.372	=		1.1100	5.5400
BJETA506-B	MG/KG	NICKEL	10.1	10.1	7.9900	-2.1100			2.3125	2.0782	-0.2343			19	0.613	0.287	=		0.9050	4.5200
BJETA518-B	MG/KG	NICKEL	9.3900	9.3900	8.1200	-1.2700			2.2396	2.0943	-0.1453			18	0.581	0.204	=		0.4530	2.2700
BJETA507-B	MG/KG	NICKEL	9.2400	9.2400	8.4300	-0.8100			2.2235	2.1318	-0.0917			17	0.548	0.122	=		0.9160	4.5800
BJETA526-B	MG/KG	NICKEL	8.7600	8.7600	8.4800	-0.2600			2.1702	2.1377	-0.0325			16	0.516	0.040	=		1.1400	5.7200
BJETA529-B	MG/KG	NICKEL	8.4800	8.4800	8.7600	0.2600	0.0076	0.0021	2.1377	2.1702	0.0325	0.0076	0.0002	15	0.484	-0.040	=		1.1300	5.6400
BJETA531-B	MG/KG	NICKEL	8.4300	8.4300	9.2400	0.8100	0.0227	0.0184	2.1318	2.2235	0.0917	0.0227	0.0021	14	0.452	-0.122	=		0.9100	4.5500
BJETA510-B	MG/KG	NICKEL	8.1200	8.1200	9.3900	1.2700	0.0381	0.0484	2.0943	2.2396	0.1453	0.0381	0.0055	13	0.419	-0.204	=		0.8920	4.4600
BJETA522-B	MG/KG	NICKEL	7.9900	7.9900	10.1000	2.1100	0.0537	0.1133	2.0782	2.3125	0.2343	0.0537	0.0126	12	0.387	-0.287	=		0.4400	2.1900
BJETA505-B	MG/KG	NICKEL	7.4700	7.4700	10.2000	2.7300	0.0697	0.1903	2.0109	2.3224	0.3115	0.0697	0.0217	11	0.355	-0.372	=		0.8810	4.4100
BJETA524-B	MG/KG	NICKEL	7.3600	7.3600	10.2000	2.8400	0.0862	0.2448	1.9961	2.3224	0.3263	0.0862	0.0281	10	0.323	-0.460	=		0.4300	2.1500
BJETA504-B	MG/KG	NICKEL	7.3000	7.3000	10.4000	3.1000	0.1036	0.3212	1.9879	2.3418	0.3539	0.1036	0.0367	9	0.290	-0.552	=		1.1100	5.5600
BJETA532-B	MG/KG	NICKEL	6.5200	6.5200	10.6000	4.0800	0.1219	0.4974	1.8749	2.3609	0.4860	0.1219	0.0592	8	0.258	-0.649	=		0.8890	4.4400
BJETA525-B	MG/KG	NICKEL	6.2100	6.2100	10.6000	4.3900	0.1415	0.6212	1.8262	2.3609	0.5347	0.1415	0.0757	7	0.226	-0.753	=		1.1600	5.8100
BJETA527-B	MG/KG	NICKEL	5.8400	5.8400	10.8000	4.9600	0.1630	0.8085	1.7647	2.3795	0.6148	0.1630	0.1002	6	0.194	-0.865	=		0.2300	1.1300
BJETA502-B	MG/KG	NICKEL	5.8400	5.8400	11.0000	5.1600	0.1870	0.9649	1.7647	2.3979	0.6332	0.1870	0.1184	5	0.161	-0.989	TR	F	1.1200	5.6200
BJETA530-B	MG/KG	NICKEL	5.1200	5.1200	11.3000	6.1600	0.2148	1.3275	1.6332	2.4248	0.7916	0.2148	0.1700	4	0.129	-1.131	TR	F	1.1500	5.7300
BJETA528-B	MG/KG	NICKEL	5.0500	5.0500	12.6000	7.5500	0.2487	1.8777	1.6194	2.5337	0.9143	0.2487	0.2274	3	0.097	-1.300	TR	F	0.9280	4.6400
BJETA519-B	MG/KG	NICKEL	4.4800	4.4800	19.3000	14.8200	0.2944	4.3630	1.4996	2.9601	1.4605	0.2944	0.4300	2	0.065	-1.518	=		0.2100	1.0500
BJETA503-B	MG/KG	NICKEL	4.1700	4.1700	22.1000	17.9300	0.4254	7.6274	1.4279	3.0956	1.6677	0.4254	0.7094	1	0.032	-1.849	=		0.2100	1.0500
				20.1			b =	**19.0260**				b =	**1.9973**							
		0	30																	
		% Non-detect	0.0%			W	0.837				W	0.959								
		Range (Raw)	4.1700	22.1000		W (crit)	0.927				W (crit)	0.927								
							Reject					Accept								
		Mean		9.16567					2.143											
		Std Dev		3.86155					0.379		0.959		0.837							
		UTL (min 95)		17.738	4.1700	22.1000	9.16567	3.86155	19.765											
		UTL (ave 95)		15.835					16.398											
		Outlier Test (raw)		3.3495	Outlier!															
		Outlier Test (log)		2.5148	None															

4101113

POTASSIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA511-B	MG/KG	POTASSIUM	1900	1900	271.00	-1629.00			7.5496	5.6021	-1.9475			30	0.968	1.849	=		61.50	589.00
BJETA501-B	MG/KG	POTASSIUM	1420	1420	480.00	-940.00			7.2584	6.1738	-1.0846			29	0.935	1.518	=		59.40	569.00
BJETA507-B	MG/KG	POTASSIUM	1380	1380	517.00	-863.00			7.2298	6.2480	-0.9818			28	0.903	1.300	=		59.20	566.00
BJETA525-B	MG/KG	POTASSIUM	1350	1350	626.00	-724.00			7.2079	6.4394	-0.7685			27	0.871	1.131	=		58.00	556.00
BJETA529-B	MG/KG	POTASSIUM	1310	1310	654.00	-656.00			7.1778	6.4831	-0.6947			26	0.839	0.989	=		59.80	572.00
BJETA509-B	MG/KG	POTASSIUM	1280	1280	741.00	-539.00			7.1546	6.6080	-0.5466			25	0.806	0.865	=		60.50	579.00
BJETA517-B	MG/KG	POTASSIUM	1180	1180	780.00	-400.00			7.0733	6.6593	-0.4140			24	0.774	0.753	=		60.70	581.00
BJETA526-B	MG/KG	POTASSIUM	1180	1180	869.00	-311.00			7.0733	6.7673	-0.3059			23	0.742	0.649	=		59.80	573.00
BJETA520-B	MG/KG	POTASSIUM	1170	1170	874.00	-296.00			7.0648	6.7731	-0.2917			22	0.710	0.552	=		62.90	602.00
BJETA506-B	MG/KG	POTASSIUM	1140	1140	895.00	-245.00			7.0388	6.7968	-0.2420			21	0.677	0.460	=		57.90	554.00
BJETA515-B	MG/KG	POTASSIUM	1110	1110	941.00	-169.00			7.0121	6.8469	-0.1652			20	0.645	0.372	=		60.50	579.00
BJETA523-B	MG/KG	POTASSIUM	1060	1060	949.00	-111.00			6.9660	6.8554	-0.1106			19	0.613	0.287	=		58.80	563.00
BJETA518-B	MG/KG	POTASSIUM	1030	1030	964.00	-66.00			6.9373	6.8711	-0.0662			18	0.581	0.204	=		59.10	566.00
BJETA512-B	MG/KG	POTASSIUM	1010	1010	964.00	-46.00			6.9177	6.8711	-0.0466			17	0.548	0.122	=		57.60	551.00
BJETA532-B	MG/KG	POTASSIUM	988	988	972.00	-16.00			6.8957	6.8794	-0.0163			16	0.516	0.040	=		58.10	556.00
BJETA504-B	MG/KG	POTASSIUM	972	972	988.00	16.00	0.0076	0.1216	6.8794	6.8957	0.0163	0.0076	0.0001	15	0.484	-0.040	=		56.10	537.00
BJETA513-B	MG/KG	POTASSIUM	964	964	1010.00	46.00	0.0227	1.0442	6.8711	6.9177	0.0466	0.0227	0.0011	14	0.452	-0.122	=		59.40	569.00
BJETA522-B	MG/KG	POTASSIUM	964	964	1030.00	66.00	0.0381	2.5146	6.8711	6.9373	0.0662	0.0381	0.0025	13	0.419	-0.204	=		58.20	557.00
BJETA505-B	MG/KG	POTASSIUM	949	949	1060.00	111.00	0.0537	5.9607	6.8554	6.9660	0.1106	0.0537	0.0059	12	0.387	-0.287	=		57.20	547.00
BJETA514-B	MG/KG	POTASSIUM	941	941	1110.00	169.00	0.0697	11.7793	6.8469	7.0121	0.1652	0.0697	0.0115	11	0.355	-0.372	=		57.20	547.00
BJETA521-B	MG/KG	POTASSIUM	895	895	1140.00	245.00	0.0862	21.1190	6.7968	7.0388	0.2420	0.0862	0.0209	10	0.323	-0.460	=		60.60	580.00
BJETA531-B	MG/KG	POTASSIUM	874	874	1170.00	296.00	0.1036	30.6656	6.7731	7.0648	0.2917	0.1036	0.0302	9	0.290	-0.552	=		58.90	564.00
BJETA524-B	MG/KG	POTASSIUM	869	869	1180.00	311.00	0.1219	37.9109	6.7673	7.0733	0.3059	0.1219	0.0373	8	0.258	-0.649	=		57.50	551.00
BJETA527-B	MG/KG	POTASSIUM	780	780	1180.00	400.00	0.1415	56.6000	6.6593	7.0733	0.4140	0.1415	0.0586	7	0.226	-0.753	=		60.70	581.00
BJETA530-B	MG/KG	POTASSIUM	741	741	1280.00	539.00	0.1630	87.8570	6.6080	7.1546	0.5466	0.1630	0.0891	6	0.194	-0.865	=		58.70	562.00
BJETA510-B	MG/KG	POTASSIUM	654	654	1310.00	656.00	0.1870	122.6720	6.4831	7.1778	0.6947	0.1870	0.1299	5	0.161	-0.989	=		59.40	569.00
BJETA528-B	MG/KG	POTASSIUM	626	626	1350.00	724.00	0.2148	155.5152	6.4394	7.2079	0.7685	0.2148	0.1651	4	0.129	-1.131	=		59.80	573.00
BJETA519-B	MG/KG	POTASSIUM	517	517	1380.00	863.00	0.2487	214.6281	6.2480	7.2298	0.9818	0.2487	0.2442	3	0.097	-1.300	TR	F	60.60	580.00
BJETA502-B	MG/KG	POTASSIUM	480	480	1420.00	940.00	0.2944	276.7360	6.1738	7.2584	1.0846	0.2944	0.3193	2	0.065	-1.518	TR	F	58.90	564.00
BJETA503-B	MG/KG	POTASSIUM	271	271	1900.00	1629.00	0.4254	692.9766	5.6021	7.5496	1.9475	0.4254	0.8285	1	0.032	-1.849	TR	F	54.60	523.00
							b =	1718.10				b =	1.9441							
		0	30																	
		% Non-detect	0.0%			W	0.977				W	0.909								
		Range (Raw)	271.00	1900.00		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		1000.17					6.848											
		Std Dev		322.79					0.379		0.909		0.977							
		UTL (min 95)		1716.77	271.0000	1900.0000	1000.16667	322.79310	2182.431											
		UTL (ave 95)		1557.63					1810.848											
		Outlier Test (raw)		2.79	Outlier!															
		Outlier Test (log)		1.85	None															
		UTL 95,99		1989.205																

4101114

SELENIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
BJETA521	BJETA521-B	MG/KG	SELENIUM	0.3130	0.3130	TR	F	0.1280	0.5800
BJETA518	BJETA518-B	MG/KG	SELENIUM	0.2490	0.2490	TR	F	0.1240	0.5660
BJETA525	BJETA525-B	MG/KG	SELENIUM	0.1890	0.1890	TR	F	0.1220	0.5560
BJETA522	BJETA522-B	MG/KG	SELENIUM	0.1780	0.1780	TR	F	0.1230	0.5570
BJETA504	BJETA504-B	MG/KG	SELENIUM	0.1500	0.1500	TR	F	0.1200	0.5400
BJETA526	BJETA526-B	MG/KG	SELENIUM	0.1260	0.1260	TR	F	0.1260	0.5730
BJETA520	BJETA520-B	MG/KG	SELENIUM	0.0000	0.0665	ND	U	0.1330	0.6020
BJETA501	BJETA501-B	MG/KG	SELENIUM	0.0000	0.0650	ND	U	0.1300	0.5700
BJETA511	BJETA511-B	MG/KG	SELENIUM	0.0000	0.0650	ND	U	0.1300	0.5890
BJETA517	BJETA517-B	MG/KG	SELENIUM	0.0000	0.0640	ND	U	0.1280	0.5810
BJETA519	BJETA519-B	MG/KG	SELENIUM	0.0000	0.0640	ND	U	0.1280	0.5800
BJETA527	BJETA527-B	MG/KG	SELENIUM	0.0000	0.0640	ND	U	0.1280	0.5810
BJETA509	BJETA509-B	MG/KG	SELENIUM	0.0000	0.0635	ND	U	0.1270	0.5790
BJETA515	BJETA515-B	MG/KG	SELENIUM	0.0000	0.0635	ND	U	0.1270	0.5790
BJETA528	BJETA528-B	MG/KG	SELENIUM	0.0000	0.0630	ND	U	0.1260	0.5730
BJETA529	BJETA529-B	MG/KG	SELENIUM	0.0000	0.0630	ND	U	0.1260	0.5720
BJETA507	BJETA507-B	MG/KG	SELENIUM	0.0000	0.0625	ND	U	0.1250	0.5660
BJETA510	BJETA510-B	MG/KG	SELENIUM	0.0000	0.0625	ND	U	0.1250	0.5690
BJETA513	BJETA513-B	MG/KG	SELENIUM	0.0000	0.0625	ND	U	0.1250	0.5690
BJETA523	BJETA523-B	MG/KG	SELENIUM	0.0000	0.0620	ND	U	0.1240	0.5630
BJETA530	BJETA530-B	MG/KG	SELENIUM	0.0000	0.0620	ND	U	0.1240	0.5620
BJETA531	BJETA531-B	MG/KG	SELENIUM	0.0000	0.0620	ND	U	0.1240	0.5640
BJETA532	BJETA532-B	MG/KG	SELENIUM	0.0000	0.0610	ND	U	0.1220	0.5560
BJETA512	BJETA512-B	MG/KG	SELENIUM	0.0000	0.0605	ND	U	0.1210	0.5510
BJETA524	BJETA524-B	MG/KG	SELENIUM	0.0000	0.0605	ND	U	0.1210	0.5510
BJETA502	BJETA502-B	MG/KG	SELENIUM	0.0000	0.0600	ND	U	0.1200	0.5600
BJETA503	BJETA503-B	MG/KG	SELENIUM	0.0000	0.0600	ND	U	0.1200	0.5200
BJETA505	BJETA505-B	MG/KG	SELENIUM	0.0000	0.0600	ND	U	0.1200	0.5500
BJETA506	BJETA506-B	MG/KG	SELENIUM	0.0000	0.0600	ND	U	0.1200	0.5500
BJETA514	BJETA514-B	MG/KG	SELENIUM	0.0000	0.0600	ND	U	0.1200	0.5470
			24	30					
			% Non-detect	80.0%					
			Range (Raw)	0.0600	0.3130				
			Mean		0.09007				
			Std Dev		0.06320				

4101115

SILVER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA518-B	MG/KG	SILVER	0.0928	0.0928	0.0105	-0.0823			-2.3773	-4.5564	-2.1791			30	0.968	1.849	TR	F	0.0226	0.1130
BJETA509-B	MG/KG	SILVER	0.0903	0.0903	0.0105	-0.0798			-2.4046	-4.5564	-2.1518			29	0.935	1.518	TR	F	0.0231	0.1160
BJETA501-B	MG/KG	SILVER	0.0750	0.0750	0.0110	-0.0640			-2.5903	-4.5099	-1.9196			28	0.903	1.300	TR	F	0.0230	0.1100
BJETA521-B	MG/KG	SILVER	0.0626	0.0626	0.0110	-0.0516			-2.7710	-4.5099	-1.7389			27	0.871	1.131	TR	F	0.0232	0.1160
BJETA513-B	MG/KG	SILVER	0.0603	0.0603	0.0111	-0.0492			-2.8084	-4.5008	-1.6924			26	0.839	0.989	TR	F	0.0228	0.1140
BJETA517-B	MG/KG	SILVER	0.0523	0.0523	0.0113	-0.0411			-2.9508	-4.4874	-1.5366			25	0.806	0.865	TR	F	0.0233	0.1160
BJETA511-B	MG/KG	SILVER	0.0483	0.0483	0.0114	-0.0370			-3.0303	-4.4785	-1.4482			24	0.774	0.753	TR	F	0.0236	0.1180
BJETA515-B	MG/KG	SILVER	0.0475	0.0475	0.0115	-0.0361			-3.0470	-4.4698	-1.4227			23	0.742	0.649	TR	F	0.0232	0.1160
BJETA526-B	MG/KG	SILVER	0.0412	0.0412	0.0115	-0.0298			-3.1893	-4.4698	-1.2804			22	0.710	0.552	TR	F	0.0229	0.1150
BJETA524-B	MG/KG	SILVER	0.0396	0.0396	0.0115	-0.0281			-3.2289	-4.4654	-1.2365			21	0.677	0.460	TR	F	0.0220	0.1100
BJETA510-B	MG/KG	SILVER	0.0375	0.0375	0.0243	-0.0132			-3.2834	-3.7173	-0.4339			20	0.645	0.372	TR	F	0.0228	0.1140
BJETA525-B	MG/KG	SILVER	0.0356	0.0356	0.0245	-0.0111			-3.3354	-3.7091	-0.3737			19	0.613	0.287	TR	F	0.0222	0.1110
BJETA519-B	MG/KG	SILVER	0.0348	0.0348	0.0105	-0.0243			-3.3581	-4.5564	-1.1982			18	0.581	0.204	TR	F	0.0232	0.1160
BJETA527-B	MG/KG	SILVER	0.0325	0.0325	0.0265	-0.0060			-3.4265	-3.6306	-0.2041			17	0.548	0.122	TR	F	0.0232	0.1160
BJETA514-B	MG/KG	SILVER	0.0284	0.0284	0.0270	-0.0014			-3.5614	-3.6119	-0.0506			16	0.516	0.040	TR	F	0.0219	0.1090
BJETA530-B	MG/KG	SILVER	0.0270	0.0270	0.0284	0.0014	0.0076	0.0000	-3.6119	-3.5614	0.0506	0.0076	0.0004	15	0.484	-0.040	TR	F	0.0225	0.1120
BJETA520-B	MG/KG	SILVER	0.0265	0.0265	0.0325	0.0060	0.0227	0.0001	-3.6306	-3.4265	0.2041	0.0227	0.0046	14	0.452	-0.122	TR	F	0.0241	0.1200
BJETA503-B	MG/KG	SILVER	0.0248	0.0105	0.0348	0.0243	0.0381	0.0009	-4.5564	-3.3581	1.1982	0.0381	0.0457	13	0.419	-0.204	TR	F	0.0225	0.113
BJETA522-B	MG/KG	SILVER	0.0245	0.0245	0.0356	0.0111	0.0537	0.0006	-3.7091	-3.3354	0.3737	0.0537	0.0201	12	0.387	-0.287	TR	F	0.0223	0.1110
BJETA512-B	MG/KG	SILVER	0.0243	0.0243	0.0375	0.0132	0.0697	0.0009	-3.7173	-3.2834	0.4339	0.0697	0.0302	11	0.355	-0.372	TR	F	0.0221	0.1100
BJETA502-B	MG/KG	SILVER	0.0000	0.0115	0.0396	0.0281	0.0862	0.0024	-4.4654	-3.2289	1.2365	0.0862	0.1066	10	0.323	-0.460	ND	U	0.0230	0.1100
BJETA528-B	MG/KG	SILVER	0.0000	0.0115	0.0412	0.0298	0.1036	0.0031	-4.4698	-3.1893	1.2804	0.1036	0.1327	9	0.290	-0.552	ND	U	0.0229	0.1150
BJETA529-B	MG/KG	SILVER	0.0000	0.0115	0.0475	0.0361	0.1219	0.0044	-4.4698	-3.0470	1.4227	0.1219	0.1734	8	0.258	-0.649	ND	U	0.0229	0.1140
BJETA507-B	MG/KG	SILVER	0.0000	0.0114	0.0483	0.0370	0.1415	0.0052	-4.4785	-3.0303	1.4482	0.1415	0.2049	7	0.226	-0.753	ND	U	0.0227	0.1130
BJETA531-B	MG/KG	SILVER	0.0000	0.0113	0.0523	0.0411	0.1630	0.0067	-4.4874	-2.9508	1.5366	0.1630	0.2505	6	0.194	-0.865	ND	U	0.0225	0.1130
BJETA532-B	MG/KG	SILVER	0.0000	0.0111	0.0603	0.0492	0.1870	0.0092	-4.5008	-2.8084	1.6924	0.1870	0.3165	5	0.161	-0.989	ND	U	0.0222	0.1110
BJETA505-B	MG/KG	SILVER	0.0000	0.0110	0.0626	0.0516	0.2148	0.0111	-4.5099	-2.7710	1.7389	0.2148	0.3735	4	0.129	-1.131	ND	U	0.0220	0.1100
BJETA506-B	MG/KG	SILVER	0.0000	0.0110	0.0750	0.0640	0.2487	0.0159	-4.5099	-2.5903	1.9196	0.2487	0.4774	3	0.097	-1.300	ND	U	0.0220	0.1100
BJETA503-B	MG/KG	SILVER	0.0000	0.0105	0.0903	0.0798	0.2944	0.0235	-4.5564	-2.4046	2.1518	0.2944	0.6335	2	0.065	-1.518	ND	U	0.0210	0.1000
BJETA504-B	MG/KG	SILVER	0.0000	0.0105	0.0928	0.0823	0.4254	0.0350	-4.5564	-2.3773	2.1791	0.4254	0.9270	1	0.032	-1.849	ND	U	0.0210	0.1100
							b =	**0.1191**				b =	**3.6969**						0.2222	
		10	30																0.0222	
		% Non-detect	33.3%			W	0.847				W	0.862								
		Range (Raw)	0.0105	0.0928		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		0.033					-3.653											
		Std Dev		0.024					0.739		0.862		0.847							
		UTL (min 95)		0.087	0.0105	0.0928	0.03342	0.02403	0.134											
		UTL (ave 95)		0.075					0.093											
		Outlier Test (raw)		2.4712	None															
		Outlier Test (log)		1.7256	None															

SILVER-CENSORED

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	RANK	i/(n+1)	mi	RANK	Detects Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)				
BJETA518	BJETA518-B	MG/KG	SILVER	0.0928	0.0928	30	0.968	1.849	20	0.952	1.668	-2.3773	**Cohen's Adjustment (log data)**			
BJETA509	BJETA509-B	MG/KG	SILVER	0.0903	0.0903	29	0.935	1.518	19	0.905	1.309	-2.4046	Mean of Detects =	-3.229		
BJETA501	BJETA501-B	MG/KG	SILVER	0.0750	0.0750	28	0.903	1.300	18	0.857	1.068	-2.5903	Sample Variance =	0.267		
BJETA521	BJETA521-B	MG/KG	SILVER	0.0626	0.0626	27	0.871	1.131	17	0.810	0.876	-2.7710	h=(n-l)/n	0.333		
BJETA513	BJETA513-B	MG/KG	SILVER	0.0603	0.0603	26	0.839	0.989	16	0.762	0.712	-2.8084	$\gamma=s_d^2/(y_d-\ln(DL))^2$	0.798		
BJETA517	BJETA517-B	MG/KG	SILVER	0.0523	0.0523	25	0.806	0.865	15	0.714	0.566	-2.9508	λ from table	0.599		
BJETA511	BJETA511-B	MG/KG	SILVER	0.0483	0.0483	24	0.774	0.753	14	0.667	0.431	-3.0303	$y=y_d-\lambda(y_d-\ln(DL))$	-3.576		
BJETA515	BJETA515-B	MG/KG	SILVER	0.0475	0.0475	23	0.742	0.649	13	0.619	0.303	-3.0470	$sy=(s_d^2+l(y_d-DL)^2)^{0.5}$	0.683		
BJETA526	BJETA526-B	MG/KG	SILVER	0.0412	0.0412	22	0.710	0.552	12	0.571	0.18	-3.1893	UTLy=y+kSy	-2.058		
BJETA524	BJETA524-B	MG/KG	SILVER	0.0396	0.0396	21	0.677	0.460	11	0.524	0.06	-3.2289				
BJETA510	BJETA510-B	MG/KG	SILVER	0.0375	0.0375	20	0.645	0.372	10	0.476	-0.06	-3.2834	Mean	0.0354	Gilbert	-3.3422
BJETA525	BJETA525-B	MG/KG	SILVER	0.0356	0.0356	19	0.613	0.287	9	0.429	-0.18	-3.3354	Std Dev	0.0273	Gilbert	-3.60142
BJETA519	BJETA519-B	MG/KG	SILVER	0.0348	0.0348	18	0.581	0.204	8	0.381	-0.303	-3.3581	UTL	0.1277		
BJETA527	BJETA527-B	MG/KG	SILVER	0.0325	0.0325	17	0.548	0.122	7	0.333	-0.431	-3.4265				
BJETA514	BJETA514-B	MG/KG	SILVER	0.0284	0.0284	16	0.516	0.040	6	0.286	-0.566	-3.5614	Outlier?	-0.26792		
BJETA530	BJETA530-B	MG/KG	SILVER	0.0270	0.0270	15	0.484	-0.040	5	0.238	-0.712	-3.6119	Outlier?	2.105219		
BJETA520	BJETA520-B	MG/KG	SILVER	0.0265	0.0265	14	0.452	-0.122	4	0.190	-0.876	-3.6306				
BJETA503	BJETA503-B	MG/KG	SILVER	0.0248	0.0105	13	0.419	-0.204	3	0.143	-1.068	-4.5564				
BJETA522	BJETA522-B	MG/KG	SILVER	0.0245	0.0245	12	0.387	-0.287	2	0.095	-1.309	-3.7091				
BJETA512	BJETA512-B	MG/KG	SILVER	0.0243	0.0243	11	0.355	-0.372	1	0.048	-1.668	-3.7173				
BJETA502	BJETA502-B	MG/KG	SILVER	0.0000	0.0115	10	0.323	-0.460				-4.4654				
BJETA528	BJETA528-B	MG/KG	SILVER	0.0000	0.0115	9	0.290	-0.552				-4.4698				
BJETA529	BJETA529-B	MG/KG	SILVER	0.0000	0.0115	8	0.258	-0.649				-4.4698				
BJETA507	BJETA507-B	MG/KG	SILVER	0.0000	0.0114	7	0.226	-0.753				-4.4785				
BJETA531	BJETA531-B	MG/KG	SILVER	0.0000	0.0113	6	0.194	-0.865				-4.4874				
BJETA532	BJETA532-B	MG/KG	SILVER	0.0000	0.0111	5	0.161	-0.989				-4.5008				
BJETA505	BJETA505-B	MG/KG	SILVER	0.0000	0.0110	4	0.129	-1.131				-4.5099				
BJETA506	BJETA506-B	MG/KG	SILVER	0.0000	0.0110	3	0.097	-1.300				-4.5099				
BJETA503	BJETA503-B	MG/KG	SILVER	0.0000	0.0105	2	0.065	-1.518				-4.5564				
BJETA504	BJETA504-B	MG/KG	SILVER	0.0000	0.0105	1	0.032	-1.849				-4.5564				

4101117

SODIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA501-B	MG/KG	SODIUM	53200	53200	1.1000	-53198.9000			10.8818	0.0953	-10.7865			30	0.968	1.849	=		2.28	34.10
BJETA505-B	MG/KG	SODIUM	34000	34000	1.1300	-33998.8700			10.4341	0.1222	-10.3119			29	0.935	1.518	=		2.19	32.80
BJETA503-B	MG/KG	SODIUM	19900	19900	1.1450	-19898.8550			9.8985	0.1354	-9.7631			28	0.903	1.300	=		2.09	31.40
BJETA504-B	MG/KG	SODIUM	12300	12300	2.9000	-12297.1000			9.4174	1.0647	-8.3526			27	0.871	1.131	=		2.15	32.20
BJETA502-B	MG/KG	SODIUM	2970	2970	6.1600	-2963.8400			7.9963	1.8181	-6.1782			26	0.839	0.989	=		2.25	33.80
BJETA506-B	MG/KG	SODIUM	1720	1720	7.4600	-1712.5400			7.4501	2.0096	-5.4405			25	0.806	0.865	=		2.21	33.20
BJETA515-B	MG/KG	SODIUM	1400	1400	14.9000	-1385.1000			7.2442	2.7014	-4.5429			24	0.774	0.753	=		2.32	34.80
BJETA511-B	MG/KG	SODIUM	543	543	14.9000	-528.1000			6.2971	2.7014	-3.5957			23	0.742	0.649	=		2.36	35.30
BJETA523-B	MG/KG	SODIUM	171	171	17.6000	-153.4000			5.1417	2.8679	-2.2738			22	0.710	0.552	=		2.25	33.80
BJETA522-B	MG/KG	SODIUM	158	158	17.9000	-140.1000			5.0626	2.8848	-2.1778			21	0.677	0.460	=		2.23	33.40
BJETA530-B	MG/KG	SODIUM	44.5	44.5	18.1000	-26.4000			3.7955	2.8959	-0.8996			20	0.645	0.372	=		2.25	33.70
BJETA532-B	MG/KG	SODIUM	43.4	43.4	20.0000	-23.4000			3.7705	2.9957	-0.7747			19	0.613	0.287	=		2.22	33.40
BJETA531-B	MG/KG	SODIUM	41.8	41.8	20.9000	-20.9000			3.7329	3.0397	-0.6931			18	0.581	0.204	=		2.25	33.80
BJETA528-B	MG/KG	SODIUM	39.4	39.4	22.6000	-16.8000			3.6738	3.1179	-0.5558			17	0.548	0.122	=		2.29	34.40
BJETA529-B	MG/KG	SODIUM	38.4	38.4	24.5000	-13.9000			3.6481	3.1987	-0.4494			16	0.516	0.040	=		2.29	34.30
BJETA507-B	MG/KG	SODIUM	24.5	24.5	38.4000	13.9000	0.0076	0.1056	3.1987	3.6481	0.4494	0.0076	0.0034	15	0.484	-0.040	TR	F	2.27	34.00
BJETA517-B	MG/KG	SODIUM	22.6	22.6	39.4000	16.8000	0.0227	0.3814	3.1179	3.6738	0.5558	0.0227	0.0126	14	0.452	-0.122	TR	F	2.33	34.90
BJETA512-B	MG/KG	SODIUM	20.9	20.9	41.8000	20.9000	0.0381	0.7963	3.0397	3.7329	0.6931	0.0381	0.0264	13	0.419	-0.204	TR	F	2.21	33.10
BJETA514-B	MG/KG	SODIUM	20.0	20.0	43.4000	23.4000	0.0537	1.2566	2.9957	3.7705	0.7747	0.0537	0.0416	12	0.387	-0.287	TR	F	2.19	32.80
BJETA527-B	MG/KG	SODIUM	18.1	18.1	44.5000	26.4000	0.0697	1.8401	2.8959	3.7955	0.8996	0.0697	0.0627	11	0.355	-0.372	TR	F	2.32	34.80
BJETA521-B	MG/KG	SODIUM	17.9	17.9	158.0000	140.1000	0.0862	12.0766	2.8848	5.0626	2.1778	0.0862	0.1877	10	0.323	-0.460	TR	F	2.32	34.80
BJETA509-B	MG/KG	SODIUM	17.6	17.6	171.0000	153.4000	0.1036	15.8922	2.8679	5.1417	2.2738	0.1036	0.2356	9	0.290	-0.552	TR	F	2.31	34.70
BJETA510-B	MG/KG	SODIUM	14.9	14.9	543.0000	528.1000	0.1219	64.3754	2.7014	6.2971	3.5957	0.1219	0.4383	8	0.258	-0.649	TR	F	2.28	34.10
BJETA513-B	MG/KG	SODIUM	14.9	14.9	1400.0000	1385.1000	0.1415	195.9917	2.7014	7.2442	4.5429	0.1415	0.6428	7	0.226	-0.753	TR	F	2.28	34.10
BJETA520-B	MG/KG	SODIUM	7.4600	7.4600	1720.0000	1712.5400	0.1630	279.1440	2.0096	7.4501	5.4405	0.1630	0.8868	6	0.194	-0.865	TR	F	2.41	36.10
BJETA525-B	MG/KG	SODIUM	6.1600	6.1600	2970.0000	2963.8400	0.1870	554.2381	1.8181	7.9963	6.1782	0.1870	1.1553	5	0.161	-0.989	TR	F	2.22	33.30
BJETA519-B	MG/KG	SODIUM	2.9000	2.9000	12300.0000	12297.1000	0.2148	2641.4171	1.0647	9.4174	8.3526	0.2148	1.7941	4	0.129	-1.131	TR	F	2.32	34.80
BJETA526-B	MG/KG	SODIUM	0.0000	1.1450	19900.0000	19898.8550	0.2487	4948.8452	0.1354	9.8985	9.7631	0.2487	2.4281	3	0.097	-1.300	ND	U	2.29	34.40
BJETA518-B	MG/KG	SODIUM	0.0000	1.1300	34000.0000	33998.8700	0.2944	10009.2673	0.1222	10.4341	10.3119	0.2944	3.0358	2	0.065	-1.518	ND	U	2.26	33.90
BJETA524-B	MG/KG	SODIUM	0.0000	1.1000	53200.0000	53198.9000	0.4254	22630.8121	0.0953	10.8818	10.7865	0.4254	4.5886	1	0.032	-1.849	ND	U	2.20	33.00
							b =	41356.44				b =	15.54							
		3	30																	
		% Non-detect	10.0%			W	0.426				W	0.898								
		Range (Raw)	1.1000	53200.0000		W (crit)	0.927				W (crit)	0.927								
							Reject					Reject								
		Mean		4225.35983					4.336											
		Std Dev		11762.05248					3.046		0.898		0.426							
		UTL (min 95)		30337.116	1.10	53200.00	4225.36	11762.05	66047.034											
		UTL (ave 95)		24538.424					14713.800											
		Outlier Test (raw)		4.1638	Outlier!															
		Outlier Test (log)		2.1490	None															

4101118

THALLIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PQ	LQ	DET	PQL
BJETA504	BJETA504-B	MG/KG	THALLIUM	1.50	1.50	=		1.10	43.00
BJETA501	BJETA501-B	MG/KG	THALLIUM	1.29	1.29	=		1.18	45.50
BJETA511	BJETA511-B	MG/KG	THALLIUM	1.29	1.29	=		1.18	47.10
BJETA527	BJETA527-B	MG/KG	THALLIUM	1.28	1.28	=		1.20	46.50
BJETA529	BJETA529-B	MG/KG	THALLIUM	1.28	1.28	=		1.18	45.80
BJETA506	BJETA506-B	MG/KG	THALLIUM	1.13	1.13	=		1.10	44.30
BJETA505	BJETA505-B	MG/KG	THALLIUM	1.10	1.10	=		1.10	43.80
BJETA520	BJETA520-B	MG/KG	THALLIUM	0.00	0.600	ND	U	1.20	48.20
BJETA528	BJETA528-B	MG/KG	THALLIUM	0.00	0.590	ND	U	1.18	45.80
BJETA509	BJETA509-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	46.30
BJETA515	BJETA515-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	46.30
BJETA521	BJETA521-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	46.40
BJETA517	BJETA517-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	46.50
BJETA519	BJETA519-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	46.40
BJETA503	BJETA503-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	41.80
BJETA530	BJETA530-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	44.90
BJETA531	BJETA531-B	MG/KG	THALLIUM	0.00	0.580	ND	U	1.16	45.10
BJETA526	BJETA526-B	MG/KG	THALLIUM	0.00	0.575	ND	U	1.15	45.80
BJETA532	BJETA532-B	MG/KG	THALLIUM	0.00	0.575	ND	U	1.15	44.50
BJETA513	BJETA513-B	MG/KG	THALLIUM	0.00	0.570	ND	U	1.14	45.50
BJETA510	BJETA510-B	MG/KG	THALLIUM	0.00	0.570	ND	U	1.14	45.50
BJETA518	BJETA518-B	MG/KG	THALLIUM	0.00	0.565	ND	U	1.13	45.20
BJETA507	BJETA507-B	MG/KG	THALLIUM	0.00	0.565	ND	U	1.13	45.30
BJETA523	BJETA523-B	MG/KG	THALLIUM	0.00	0.565	ND	U	1.13	45.00
BJETA525	BJETA525-B	MG/KG	THALLIUM	0.00	0.555	ND	U	1.11	44.40
BJETA522	BJETA522-B	MG/KG	THALLIUM	0.00	0.555	ND	U	1.11	44.60
BJETA512	BJETA512-B	MG/KG	THALLIUM	0.00	0.550	ND	U	1.10	44.10
BJETA524	BJETA524-B	MG/KG	THALLIUM	0.00	0.550	ND	U	1.10	44.10
BJETA502	BJETA502-B	MG/KG	THALLIUM	0.00	0.550	ND	U	1.10	45.10
BJETA514	BJETA514-B	MG/KG	THALLIUM	0.00	0.545	ND	U	1.09	43.80
			23	30					
			% Non-detect	76.7%					
			Range (Raw)	0.5450	1.5000				
			Mean		0.73300				
			Std Dev		0.30580				

4101119

VANADIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA515-B	MG/KG	VANADIUM	37.8	37.8	9.7000	-28.1000			3.6323	2.2721	-1.3602			30	0.968	1.849	=		0.452	9.270
BJETA509-B	MG/KG	VANADIUM	33.7	33.7	12.8000	-20.9000			3.5175	2.5494	-0.9681			29	0.935	1.518	=		0.451	9.260
BJETA501-B	MG/KG	VANADIUM	30.6	30.6	13.7000	-16.9000			3.4210	2.6174	-0.8036			28	0.903	1.300	=		0.444	9.100
BJETA525-B	MG/KG	VANADIUM	26.9	26.9	14.1000	-12.8000			3.2921	2.6462	-0.6460			27	0.871	1.131	=		0.433	8.890
BJETA517-B	MG/KG	VANADIUM	26.7	26.7	15.4000	-11.3000			3.2847	2.7344	-0.5503			26	0.839	0.989	=		0.453	9.300
BJETA510-B	MG/KG	VANADIUM	25.4	25.4	16.3000	-9.1000			3.2347	2.7912	-0.4436			25	0.806	0.865	=		0.444	9.100
BJETA511-B	MG/KG	VANADIUM	24.5	24.5	16.4000	-8.1000			3.1987	2.7973	-0.4014			24	0.774	0.753	=		0.459	9.420
BJETA518-B	MG/KG	VANADIUM	23.6	23.6	16.5000	-7.1000			3.1612	2.8034	-0.3579			23	0.742	0.649	=		0.441	9.050
BJETA526-B	MG/KG	VANADIUM	23.1	23.1	16.6000	-6.5000			3.1398	2.8094	-0.3304			22	0.710	0.552	=		0.447	9.160
BJETA523-B	MG/KG	VANADIUM	22.2	22.2	16.7000	-5.5000			3.1001	2.8154	-0.2847			21	0.677	0.460	=		0.439	9.010
BJETA513-B	MG/KG	VANADIUM	21.0	21.0	17.1000	-3.9000			3.0445	2.8391	-0.2054			20	0.645	0.372	=		0.444	9.100
BJETA521-B	MG/KG	VANADIUM	20.5	20.5	17.5000	-3.0000			3.0204	2.8622	-0.1582			19	0.613	0.287	=		0.452	9.280
BJETA529-B	MG/KG	VANADIUM	20.0	20.0	17.7000	-2.3000			2.9957	2.8736	-0.1222			18	0.581	0.204	=		0.446	9.150
BJETA524-B	MG/KG	VANADIUM	18.9	18.9	18.0000	-0.9000			2.9392	2.8904	-0.0488			17	0.548	0.122	=		0.430	8.810
BJETA512-B	MG/KG	VANADIUM	18.4	18.4	18.0000	-0.4000			2.9124	2.8904	-0.0220			16	0.516	0.040	=		0.430	8.820
BJETA522-B	MG/KG	VANADIUM	18.0	18.0	18.4000	0.4000	0.0076	0.0030	2.8904	2.9124	0.0220	0.0076	0.0002	15	0.484	-0.040	=		0.435	8.920
BJETA514-B	MG/KG	VANADIUM	18.0	18.0	18.9000	0.9000	0.0227	0.0204	2.8904	2.9392	0.0488	0.0227	0.0011	14	0.452	-0.122	=		0.427	8.750
BJETA507-B	MG/KG	VANADIUM	17.7	17.7	20.0000	2.3000	0.0381	0.0876	2.8736	2.9957	0.1222	0.0381	0.0047	13	0.419	-0.204	=		0.442	9.060
BJETA505-B	MG/KG	VANADIUM	17.5	17.5	20.5000	3.0000	0.0537	0.1611	2.8622	3.0204	0.1582	0.0537	0.0085	12	0.387	-0.287	=		0.427	8.750
BJETA531-B	MG/KG	VANADIUM	17.1	17.1	21.0000	3.9000	0.0697	0.2718	2.8391	3.0445	0.2054	0.0697	0.0143	11	0.355	-0.372	=		0.440	9.020
BJETA504-B	MG/KG	VANADIUM	16.7	16.7	22.2000	5.5000	0.0862	0.4741	2.8154	3.1001	0.2847	0.0862	0.0245	10	0.323	-0.460	=		0.419	8.590
BJETA506-B	MG/KG	VANADIUM	16.6	16.6	23.1000	6.5000	0.1036	0.6734	2.8094	3.1398	0.3304	0.1036	0.0342	9	0.290	-0.552	=		0.432	8.860
BJETA503-B	MG/KG	VANADIUM	16.5	16.5	23.6000	7.1000	0.1219	0.8655	2.8034	3.1612	0.3579	0.1219	0.0436	8	0.258	-0.649	=		0.408	8.370
BJETA520-B	MG/KG	VANADIUM	16.4	16.4	24.5000	8.1000	0.1415	1.1462	2.7973	3.1987	0.4014	0.1415	0.0568	7	0.226	-0.753	=		0.470	9.640
BJETA502-B	MG/KG	VANADIUM	16.3	16.3	25.4000	9.1000	0.1630	1.4833	2.7912	3.2347	0.4436	0.1630	0.0723	6	0.194	-0.865	=		0.440	9.020
BJETA530-B	MG/KG	VANADIUM	15.4	15.4	26.7000	11.3000	0.1870	2.1131	2.7344	3.2847	0.5503	0.1870	0.1029	5	0.161	-0.989	=		0.438	8.990
BJETA519-B	MG/KG	VANADIUM	14.1	14.1	26.9000	12.8000	0.2148	2.7494	2.6462	3.2921	0.6460	0.2148	0.1388	4	0.129	-1.131	=		0.452	9.280
BJETA532-B	MG/KG	VANADIUM	13.7	13.7	30.6000	16.9000	0.2487	4.2030	2.6174	3.4210	0.8036	0.2487	0.1999	3	0.097	-1.300	=		0.434	8.900
BJETA527-B	MG/KG	VANADIUM	12.8	12.8	33.7000	20.9000	0.2944	6.1530	2.5494	3.5175	0.9681	0.2944	0.2850	2	0.065	-1.518	=		0.453	9.290
BJETA528-B	MG/KG	VANADIUM	9.7	9.7	37.8000	28.1000	0.4254	11.9537	2.2721	3.6323	1.3602	0.4254	0.5786	1	0.032	-1.849	=		0.447	9.160
							b =	32.36				b =	1.57							
		0	30																	
		% Non-detect	0.0%			W	0.926				W	0.980								
		Range (Raw)	9.7000	37.8000		W (crit)	0.927				W (crit)	0.927								
							Reject					Accept								
		Mean		20.32667					2.970											
		Std Dev		6.24477					0.294		0.980		0.926							
		UTL (min 95)		34.190	9.7000	37.8000	20.32667	6.24477	37.393											
		UTL (ave 95)		31.111					32.353											
		Outlier Test (raw)		2.7981	Outlier!															
		Outlier Test (log)		2.2589	None															

4101120

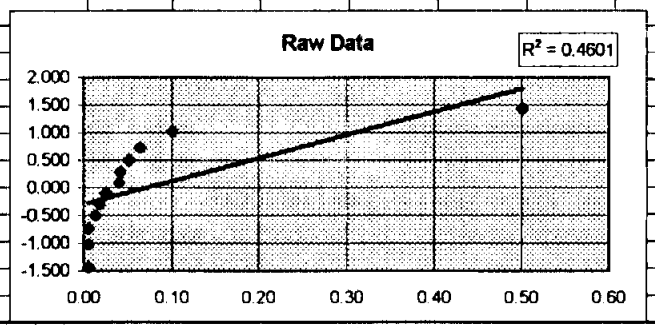
ZINC

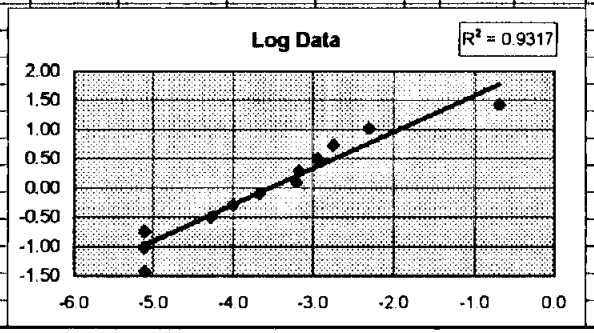
SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
BJETA511-B	MG/KG	ZINC	31.0	31.0	5.9000	-25.1000			3.4340	1.7750	-1.6590			30	0.968	1.849	=		0.200	2.360
BJETA501-B	MG/KG	ZINC	26.4	26.4	7.1000	-19.3000			3.2734	1.9601	-1.3133			29	0.935	1.518	=		0.193	2.280
BJETA509-B	MG/KG	ZINC	26.3	26.3	7.6900	-18.6100			3.2696	2.0399	-1.2296			28	0.903	1.300	=		0.197	2.310
BJETA517-B	MG/KG	ZINC	24.5	24.5	13.0000	-11.5000			3.1987	2.5649	-0.6337			27	0.871	1.131	=		0.198	2.330
BJETA507-B	MG/KG	ZINC	24.4	24.4	13.6000	-10.8000			3.1946	2.6101	-0.5845			26	0.839	0.989	=		0.193	2.270
BJETA522-B	MG/KG	ZINC	23.5	23.5	15.3000	-8.2000			3.1570	2.7279	-0.4291			25	0.806	0.865	=		0.190	2.230
BJETA520-B	MG/KG	ZINC	23.2	23.2	16.3000	-6.9000			3.1442	2.7912	-0.3530			24	0.774	0.753	=		0.205	2.410
BJETA525-B	MG/KG	ZINC	22.9	22.9	16.6000	-6.3000			3.1311	2.8094	-0.3217			23	0.742	0.649	=		0.189	2.220
BJETA529-B	MG/KG	ZINC	21.9	21.9	16.6000	-5.3000			3.0865	2.8094	-0.2771			22	0.710	0.552	=		0.195	2.290
BJETA515-B	MG/KG	ZINC	21.3	21.3	16.7000	-4.6000			3.0587	2.8154	-0.2433			21	0.677	0.460	=		0.197	2.320
BJETA518-B	MG/KG	ZINC	20.3	20.3	17.0000	-3.3000			3.0106	2.8332	-0.1774			20	0.645	0.372	=		0.192	2.260
BJETA506-B	MG/KG	ZINC	19.8	19.8	17.6000	-2.2000			2.9857	2.8679	-0.1178			19	0.613	0.287	=		0.188	2.210
BJETA523-B	MG/KG	ZINC	19.4	19.4	17.7000	-1.7000			2.9653	2.8736	-0.0917			18	0.581	0.204	=		0.191	2.250
BJETA521-B	MG/KG	ZINC	19.0	19.0	18.5000	-0.5000			2.9444	2.9178	-0.0267			17	0.548	0.122	=		0.197	2.320
BJETA526-B	MG/KG	ZINC	18.7	18.7	18.7000	0.0000			2.9285	2.9285	0.0000			16	0.516	0.040	=		0.195	2.290
BJETA531-B	MG/KG	ZINC	18.7	18.7	18.7000	0.0000	0.0076	0.0000	2.9285	2.9285	0.0000	0.0076	0.0000	15	0.484	-0.040	=		0.192	2.250
BJETA513-B	MG/KG	ZINC	18.5	18.5	19.0000	0.5000	0.0227	0.0114	2.9178	2.9444	0.0267	0.0227	0.0006	14	0.452	-0.122	=		0.193	2.280
BJETA512-B	MG/KG	ZINC	17.7	17.7	19.4000	1.7000	0.0381	0.0648	2.8736	2.9653	0.0917	0.0381	0.0035	13	0.419	-0.204	=		0.187	2.210
BJETA527-B	MG/KG	ZINC	17.6	17.6	19.8000	2.2000	0.0537	0.1181	2.8679	2.9857	0.1178	0.0537	0.0063	12	0.387	-0.287	=		0.197	2.320
BJETA514-B	MG/KG	ZINC	17.0	17.0	20.3000	3.3000	0.0697	0.2300	2.8332	3.0106	0.1774	0.0697	0.0124	11	0.355	-0.372	=		0.186	2.190
BJETA504-B	MG/KG	ZINC	16.7	16.7	21.3000	4.6000	0.0862	0.3965	2.8154	3.0587	0.2433	0.0862	0.0210	10	0.323	-0.460	=		0.183	2.150
BJETA524-B	MG/KG	ZINC	16.6	16.6	21.9000	5.3000	0.1036	0.5491	2.8094	3.0865	0.2771	0.1036	0.0287	9	0.290	-0.552	=		0.187	2.200
BJETA505-B	MG/KG	ZINC	16.6	16.6	22.9000	6.3000	0.1219	0.7680	2.8094	3.1311	0.3217	0.1219	0.0392	8	0.258	-0.649	=		0.186	2.190
BJETA532-B	MG/KG	ZINC	16.3	16.3	23.2000	6.9000	0.1415	0.9764	2.7912	3.1442	0.3530	0.1415	0.0499	7	0.226	-0.753	=		0.189	2.220
BJETA510-B	MG/KG	ZINC	15.3	15.3	23.5000	8.2000	0.1630	1.3366	2.7279	3.1570	0.4291	0.1630	0.0700	6	0.194	-0.865	=		0.193	2.280
BJETA530-B	MG/KG	ZINC	13.6	13.6	24.4000	10.8000	0.1870	2.0196	2.6101	3.1946	0.5845	0.1870	0.1093	5	0.161	-0.989	=		0.191	2.250
BJETA528-B	MG/KG	ZINC	13.0	13.0	24.5000	11.5000	0.2148	2.4702	2.5649	3.1987	0.6337	0.2148	0.1361	4	0.129	-1.131	=		0.195	2.290
BJETA503-B	MG/KG	ZINC	7.69	7.69	26.3000	18.6100	0.2487	4.6283	2.0399	3.2696	1.2296	0.2487	0.3058	3	0.097	-1.300	=		0.178	2.090
BJETA519-B	MG/KG	ZINC	7.10	7.10	26.4000	19.3000	0.2944	5.6819	1.9601	3.2734	1.3133	0.2944	0.3866	2	0.065	-1.518	=		0.197	2.320
BJETA502-B	MG/KG	ZINC	5.90	5.90	31.0000	25.1000	0.4254	10.6775	1.7750	3.4340	1.6590	0.4254	0.7058	1	0.032	-1.849	=		0.192	2.250
				34.1			b =	29.93				b =	1.88							
		0	30																	
		% Non-detect	0.0%			W	0.963				W	0.851								
		Range (Raw)	5.9000	31.0000		W (crit)	0.927				W (crit)	0.927								
							Accept					Reject								
		Mean		18.69633					2.870											
		Std Dev		5.66340					0.378		0.851		0.963							
		UTL (min 95)		31.269	5.9000	31.0000	18.69633	5.66340	40.787											
		UTL (ave 95)		28.477					33.860											
		Outlier Test (raw)		2.1725	None															
		Outlier Test (log)		1.4932	None															

4101121

ALUMINUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
MWMTAC001-01M	MG/L	ALUMINUM	0.5010	0.5010	0.0061	-0.4949			-0.6911	-5.0995	-4.4083			12	0.923	1.426	=		0.0122	0.5000
WJETA534-01M	MG/L	ALUMINUM	0.1000	0.1000	0.0061	-0.0939			-2.3026	-5.0995	-2.7969			11	0.846	1.020	TR	F	0.0122	0.5000
USGS01T-M	MG/L	ALUMINUM	0.0642	0.0642	0.0061	-0.0581			-2.7458	-5.0995	-2.3537			10	0.769	0.736	TR	F	0.0122	0.5000
LF033D-01M	MG/L	ALUMINUM	0.0527	0.0527	0.0139	-0.0388			-2.9431	-4.2759	-1.3327			9	0.692	0.502	TR	F	0.0122	0.5000
HM127-01M	MG/L	ALUMINUM	0.0420	0.0420	0.0183	-0.0237			-3.1701	-4.0009	-0.8308			8	0.615	0.293	TR	F	0.0122	0.5000
HM120-01M	MG/L	ALUMINUM	0.0406	0.0406	0.0257	-0.0149			-3.2040	-3.6613	-0.4573			7	0.538	0.097	TR	F	0.0122	0.5000
WJETA535-01M	MG/L	ALUMINUM	0.0257	0.0257	0.0406	0.0149	0.0303	0.0005	-3.6613	-3.2040	0.4573	0.0303	0.0139	6	0.462	-0.097	TR	F	0.0122	0.5000
USGS02T-M	MG/L	ALUMINUM	0.0183	0.0183	0.0420	0.0237	0.0922	0.0022	-4.0009	-3.1701	0.8308	0.0922	0.0766	5	0.385	-0.293	TR	F	0.0122	0.5000
WJETA530-01M	MG/L	ALUMINUM	0.0139	0.0139	0.0527	0.0388	0.1586	0.0062	-4.2759	-2.9431	1.3327	0.1586	0.2114	4	0.308	-0.502	TR	F	0.0122	0.5000
LF044A-01M	MG/L	ALUMINUM	0.0000	0.0061	0.0642	0.0581	0.2347	0.0136	-5.0995	-2.7458	2.3537	0.2347	0.5524	3	0.231	-0.736	ND	U	0.0122	0.5000
LF044B-01M	MG/L	ALUMINUM	0.0000	0.0061	0.1000	0.0939	0.3325	0.0312	-5.0995	-2.3026	2.7969	0.3325	0.9300	2	0.154	-1.020	ND	U	0.0122	0.5000
WJETA531-M	MG/L	ALUMINUM	0.0000	0.0061	0.5010	0.4949	0.5475	0.2710	-5.0995	-0.6911	4.4083	0.5475	2.4136	1	0.077	-1.426	ND	U	0.0122	0.5000
							b =	**0.3246**				b =	**4.1978**							
		3	12																	
		% Non-detect	25.0%			W	0.505				W	0.930								
		Range (Raw)	0.0061	0.5010		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		0.07306					-3.524											
		Std Dev		0.13770					1.312		0.930		0.505							
		UTL		0.450	0.0061	0.5010	0.07306	0.13770	1.068											
		Outlier Test (raw)		3.1079	Outlier!				0.342											
		Outlier Test (log)		2.1589	None															





4101122

ALUMINUM - CENSORED

SAMPLE_ID	UNITS	NAME	VALUE	CALC	R	i/(n+1)	mi	R	Detects-Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)				
MWMTAC001-01M	MG/L	ALUMINUM	0.5010	0.5010	12	0.923	1.426	9	0.900	1.281551	-0.6911	**Cohen's Adjustment (log data)**			
WJETA534-01M	MG/L	ALUMINUM	0.1000	0.1000	11	0.846	1.020	8	0.800	0.841621	-2.3026	Mean of Detects =	-2.999		
USGS01T-M	MG/L	ALUMINUM	0.0642	0.0642	10	0.769	0.736	7	0.700	0.524401	-2.7458	Sample Variance =	1.128		
LF033D-01M	MG/L	ALUMINUM	0.0527	0.0527	9	0.692	0.502	6	0.600	0.253347	-2.9431	h=(n-l)/n	0.250		
HM127-01M	MG/L	ALUMINUM	0.0420	0.0420	8	0.615	0.293	5	0.500	0	-3.1701	$\gamma=s_d^2/(y_d-\ln(DL))^2$	0.506		
HM120-01M	MG/L	ALUMINUM	0.0406	0.0406	7	0.538	0.097	4	0.400	-0.25335	-3.2040	λ from table	0.393		
WJETA535-01M	MG/L	ALUMINUM	0.0257	0.0257	6	0.462	-0.097	3	0.300	-0.5244	-3.6613	$y=y_d-\lambda(y_d-\ln(DL))$	-3.586		
USGS02T-M	MG/L	ALUMINUM	0.0183	0.0183	5	0.385	-0.293	2	0.200	-0.84162	-4.0009	$sy=(s_d^2+l(y_d-DL)^2)^{0.}$	1.415		
WJETA530-01M	MG/L	ALUMINUM	0.0139	0.0139	4	0.308	-0.502	1	0.100	-1.28155	-4.2759	UTLy=y+kSy	-0.940	0.2864	(min 95)
LF044A-01M	MG/L	ALUMINUM	0.0000	0.0061	3	0.231	-0.736				-5.0995				
LF044B-01M	MG/L	ALUMINUM	0.0000	0.0061	2	0.154	-1.020				-5.0995	Mean	0.0754	Gilbert	
WJETA531-M	MG/L	ALUMINUM	0.0000	0.0061	1	0.077	-1.426				-5.0995	Std Dev	0.1910	Gilbert	
												UTL	0.3905	1.3316	(min 95)
												Outlier? =	2.2275	None	

4101123

ANTIMONY

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
HM-127	HM127-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
LF03-3D	LF033D-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
LF04-4A	LF044A-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
LF04-4B	LF044B-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
MWMTAC-001	MWMTAC001-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
USGS01T	USGS01T-M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
USGS02T	USGS02T-M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA530	WJETA530-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA531	WJETA531-M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA534	WJETA534-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA535	WJETA535-01M	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0010	0.0010				
			Mean		0.00100				
			Std Dev		0.00000				

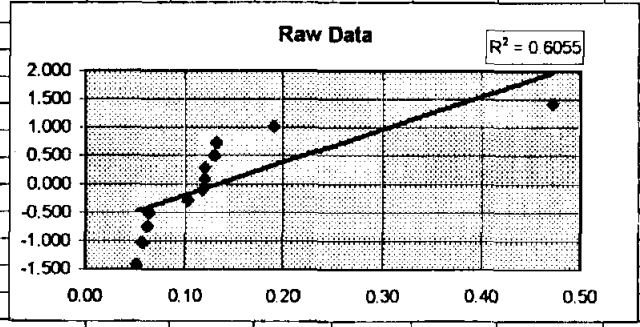
4101124

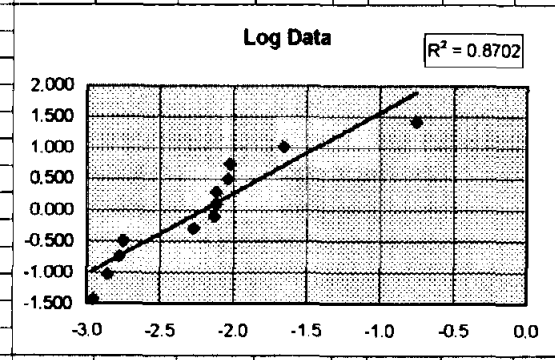
ARSENIC

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
HM-127	HM127-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
LF03-3D	LF033D-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
LF04-4A	LF044A-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
LF04-4B	LF044B-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
MWMTAC-001	MWMTAC001-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
USGS01T	USGS01T-M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
USGS02T	USGS02T-M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA530	WJETA530-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA531	WJETA531-M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA534	WJETA534-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA535	WJETA535-01M	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0025	0.0025				
			Mean		0.00245				
			Std Dev		0.00000				

4101125

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS02T-M	MG/L	BARIUM	0.4720	0.4720	0.0520	-0.4200			-0.7508	-2.9565	-2.2057			12	0.923	1.426	=		0.0010	0.0200
USGS01T-M	MG/L	BARIUM	0.1910	0.1910	0.0575	-0.1335			-1.6555	-2.8560	-1.2005			11	0.846	1.020	=		0.0010	0.0200
MWMTAC001-01M	MG/L	BARIUM	0.1320	0.1320	0.0622	-0.0698			-2.0250	-2.7774	-0.7524			10	0.769	0.736	=		0.0010	0.0200
WJETA531-M	MG/L	BARIUM	0.1300	0.1300	0.0639	-0.0661			-2.0402	-2.7504	-0.7102			9	0.692	0.502	=		0.0010	0.0200
WJETA534-01M	MG/L	BARIUM	0.1200	0.1200	0.1030	-0.0170			-2.1203	-2.2730	-0.1528			8	0.615	0.293	=		0.0010	0.0200
WJETA535-01M	MG/L	BARIUM	0.1200	0.1200	0.1180	-0.0020			-2.1203	-2.1371	-0.0168			7	0.538	0.097	=		0.0010	0.0200
WJETA530-01M	MG/L	BARIUM	0.1180	0.1180	0.1200	0.0020	0.0303	0.0001	-2.1371	-2.1203	0.0168	0.0303	0.0005	6	0.462	-0.097	=		0.0010	0.0200
LF044A-01M	MG/L	BARIUM	0.1030	0.1030	0.1200	0.0170	0.0922	0.0016	-2.2730	-2.1203	0.1528	0.0922	0.0141	5	0.385	-0.293	=		0.0010	0.0200
HM127-01M	MG/L	BARIUM	0.0639	0.0639	0.1300	0.0661	0.1586	0.0105	-2.7504	-2.0402	0.7102	0.1586	0.1126	4	0.308	-0.502	=		0.0010	0.0200
LF033D-01M	MG/L	BARIUM	0.0622	0.0622	0.1320	0.0698	0.2347	0.0164	-2.7774	-2.0250	0.7524	0.2347	0.1766	3	0.231	-0.736	=		0.0010	0.0200
LF044B-01M	MG/L	BARIUM	0.0575	0.0575	0.1910	0.1335	0.3325	0.0444	-2.8560	-1.6555	1.2005	0.3325	0.3992	2	0.154	-1.020	=		0.0010	0.0200
HM120-01M	MG/L	BARIUM	0.0520	0.0520	0.4720	0.4200	0.5475	0.2300	-2.9565	-0.7508	2.2057	0.5475	1.2076	1	0.077	-1.426	=		0.0010	0.0200
							b =	**0.3028**				**b =**	**1.9106**							
		0	12																	
		% Non-detect	0.0%			W	0.647	Geomean	0.1102		W	0.887								
		Range (Raw)	0.0520	0.4720		W (crit)	0.859	StdDev	0.6115		W (crit)	0.859								
							Reject					Accept								
		Mean		0.13513					-2.205											
		Std Dev		0.11352					0.612		0.887		0.647							
		UTL		0.446	0.0520	0.4720	0.13513	0.11352	0.587											
		Outlier Test (raw)		2.9675	Outlier!				0.346											
		Outlier Test (log)		2.3784	Outlier!															





4101126

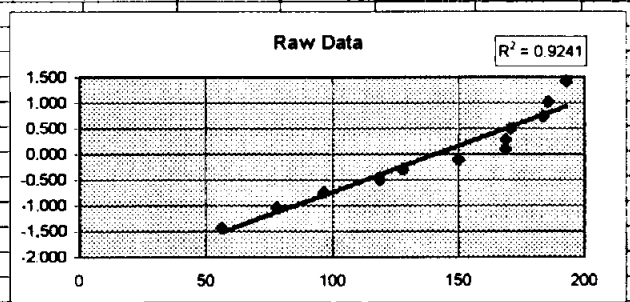
BERYLLIUM

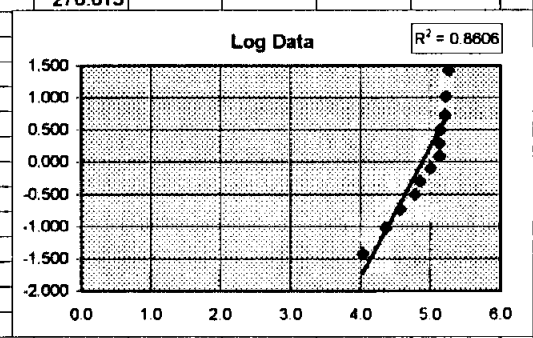
LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	BERYLLIUM	0.0003	0.0003	=		0.0003	0.0030
HM-127	HM127-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
LF03-3D	LF033D-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
LF04-4A	LF044A-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
LF04-4B	LF044B-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
MWMTAC-001	MWMTAC001-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
USGS01T	USGS01T-M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
USGS02T	USGS02T-M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA530	WJETA530-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA531	WJETA531-M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA534	WJETA534-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA535	WJETA535-01M	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0002	0.0003				
			Mean		0.00016				
			Std Dev		0.00004				

4101127

CALCIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
HM120-01M	MG/L	CALCIUM	193.0000	193.0000	56.5000	-136.5000			5.2627	4.0342	-1.2284			12	0.923	1.426	=		0.0222	0.1000
MWMTAC001-01M	MG/L	CALCIUM	186.0000	186.0000	78.4000	-107.6000			5.2257	4.3618	-0.8639			11	0.846	1.020	=		0.0222	0.1000
LF033D-01M	MG/L	CALCIUM	184.0000	184.0000	96.5000	-87.5000			5.2149	4.5695	-0.6454			10	0.769	0.736	=		0.0222	0.1000
WJETA531-M	MG/L	CALCIUM	171.0000	171.0000	119.0000	-52.0000			5.1417	4.7791	-0.3625			9	0.692	0.502	=		0.0222	0.1000
WJETA530-01M	MG/L	CALCIUM	169.0000	169.0000	128.0000	-41.0000			5.1299	4.8520	-0.2779			8	0.615	0.293	=		0.0222	0.1000
WJETA534-01M	MG/L	CALCIUM	169.0000	169.0000	150.0000	-19.0000			5.1299	5.0106	-0.1193			7	0.538	0.097	=		0.0222	0.1000
WJETA535-01M	MG/L	CALCIUM	150.0000	150.0000	169.0000	19.0000	0.0303	0.5757	5.0106	5.1299	0.1193	0.0303	0.0036	6	0.462	-0.097	=		0.0222	0.1000
LF044A-01M	MG/L	CALCIUM	128.0000	128.0000	169.0000	41.0000	0.0922	3.7802	4.8520	5.1299	0.2779	0.0922	0.0256	5	0.385	-0.293	=		0.0222	0.1000
HM127-01M	MG/L	CALCIUM	119.0000	119.0000	171.0000	52.0000	0.1586	8.2472	4.7791	5.1417	0.3625	0.1586	0.0575	4	0.308	-0.502	=		0.0222	0.1000
USGS01T-M	MG/L	CALCIUM	96.5000	96.5000	184.0000	87.5000	0.2347	20.5363	4.5695	5.2149	0.6454	0.2347	0.1515	3	0.231	-0.736	=		0.0222	0.1000
LF044B-01M	MG/L	CALCIUM	78.4000	78.4000	186.0000	107.6000	0.3325	35.7770	4.3618	5.2257	0.8639	0.3325	0.2873	2	0.154	-1.020	=		0.0222	0.1000
USGS02T-M	MG/L	CALCIUM	56.5000	56.5000	193.0000	136.5000	0.5475	74.7338	4.0342	5.2627	1.2284	0.5475	0.6726	1	0.077	-1.426	=		0.0222	0.1000
							b =	**143.6501**				b =	**1.1980**							
		0	12																	
		% Non-detect	0.0%			W	0.905				W	0.855								
		Range (Raw)	56.5000	193.0000		W (crit)	0.859				W (crit)	0.859								
							Accept					Reject								
		Mean		141.70000					4.893											
		Std Dev		45.54057					0.391		0.855		0.905							
		UTL		266.299	56.5000	193.0000	141.70000	45.54057	388.089											
		Outlier Test (raw)		1.1265	None				276.615											
		Outlier Test (log)		0.9474	None															





4101123

CADMIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
HM-127	HM127-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
LF03-3D	LF033D-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
LF04-4A	LF044A-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
LF04-4B	LF044B-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
MWMTAC-001	MWMTAC001-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
USGS01T	USGS01T-M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
USGS02T	USGS02T-M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
WJETA530	WJETA530-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
WJETA531	WJETA531-M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
WJETA534	WJETA534-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
WJETA535	WJETA535-01M	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0003	0.0003				
			Mean		0.00025				
			Std Dev		0.00000				

4101120

CHROMIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
MWMTAC-001	MWMTAC001-01M	MG/L	CHROMIUM, TOTAL	0.0064	0.0064	TR	F	0.0053	0.0700
HM-120	HM120-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
HM-127	HM127-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
LF03-3D	LF033D-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
LF04-4A	LF044A-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
LF04-4B	LF044B-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
USGS01T	USGS01T-M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
USGS02T	USGS02T-M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA530	WJETA530-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA531	WJETA531-M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA534	WJETA534-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA535	WJETA535-01M	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0027	0.0064				
			Mean		0.00296				
			Std Dev		0.00108				

4101130

COBALT

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
HM-127	HM127-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
LF03-3D	LF033D-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
LF04-4A	LF044A-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
LF04-4B	LF044B-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
MWMTAC-001	MWMTAC001-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
USGS01T	USGS01T-M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
USGS02T	USGS02T-M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA530	WJETA530-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA531	WJETA531-M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA534	WJETA534-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA535	WJETA535-01M	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0045	0.0045				
			Mean		0.00445				
			Std Dev		0.00000				

4101131

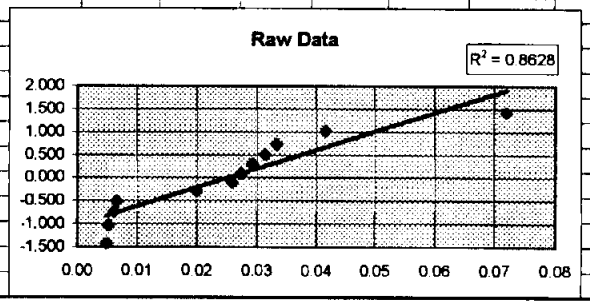
COPPER

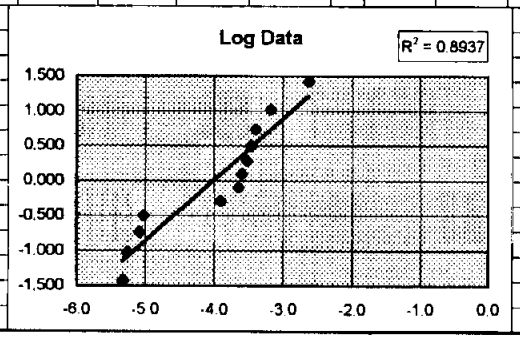
LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	COPPER	0.0028	0.0028	TR	F	0.0008	0.0600
HM-127	HM127-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
LF03-3D	LF033D-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
LF04-4A	LF044A-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
LF04-4B	LF044B-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
MWMTAC-001	MWMTAC001-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
USGS01T	USGS01T-M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
USGS02T	USGS02T-M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA530	WJETA530-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA531	WJETA531-M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA534	WJETA534-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA535	WJETA535-01M	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0004	0.0028				
			Mean		0.00060				
			Std Dev		0.00069				

4101132

IRON

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS01T-M	MG/L	IRON	0.0720	0.0720	0.0049	-0.0671			-2.6311	-5.3185	-2.6874			12	0.923	1.426	=		0.0035	0.0700
MWMTAC001-01M	MG/L	IRON	0.0416	0.0416	0.0052	-0.0364			-3.1797	-5.2591	-2.0794			11	0.846	1.020	TR	F	0.0035	0.0700
WJETA534-01M	MG/L	IRON	0.0333	0.0333	0.0062	-0.0271			-3.4022	-5.0832	-1.6810			10	0.769	0.736	TR	F	0.0035	0.0700
WJETA530-01M	MG/L	IRON	0.0314	0.0314	0.0066	-0.0248			-3.4609	-5.0207	-1.5597			9	0.692	0.502	TR	F	0.0035	0.0700
USGS02T-M	MG/L	IRON	0.0293	0.0293	0.0200	-0.0093			-3.5302	-3.9120	-0.3819			8	0.615	0.293	TR	F	0.0035	0.0700
WJETA535-01M	MG/L	IRON	0.0273	0.0273	0.0259	-0.0014			-3.6009	-3.6535	-0.0526			7	0.538	0.097	TR	F	0.0035	0.0700
HM127-01M	MG/L	IRON	0.0259	0.0259	0.0273	0.0014	0.0303	0.0000	-3.6535	-3.6009	0.0526	0.0303	0.0016	6	0.462	-0.097	TR	F	0.0035	0.0700
LF033D-01M	MG/L	IRON	0.0200	0.0200	0.0293	0.0093	0.0922	0.0009	-3.9120	-3.5302	0.3819	0.0922	0.0352	5	0.385	-0.293	TR	F	0.0035	0.0700
LF044A-01M	MG/L	IRON	0.0066	0.0066	0.0314	0.0248	0.1586	0.0039	-5.0207	-3.4609	1.5597	0.1586	0.2474	4	0.308	-0.502	TR	F	0.0035	0.0700
HM120-01M	MG/L	IRON	0.0062	0.0062	0.0333	0.0271	0.2347	0.0064	-5.0832	-3.4022	1.6810	0.2347	0.3945	3	0.231	-0.736	TR	F	0.0035	0.0700
LF044B-01M	MG/L	IRON	0.0052	0.0052	0.0416	0.0364	0.3325	0.0121	-5.2591	-3.1797	2.0794	0.3325	0.6914	2	0.154	-1.020	TR	F	0.0035	0.0700
WJETA531-M	MG/L	IRON	0.0049	0.0049	0.0720	0.0671	0.5475	0.0367	-5.3185	-2.6311	2.6874	0.5475	1.4714	1	0.077	-1.426	TR	F	0.0035	0.0700
							b =	0.0600				b =	2.8415							
		0	12																	
		% Non-detect	0.0%			W	0.872				W	0.874								
		Range (Raw)	0.0049	0.0720		W (crit)	0.859				W (crit)	0.859								
							Accept					Accept								
		Mean		0.02531					-4.004											
		Std Dev		0.01938					0.917		0.874		0.872							
		UTL		0.078	0.0049	0.0720	0.02531	0.01938	0.224											
		Outlier Test (raw)		2.4094	Outlier!				0.101											
		Outlier Test (log)		1.4982	None															





4101133

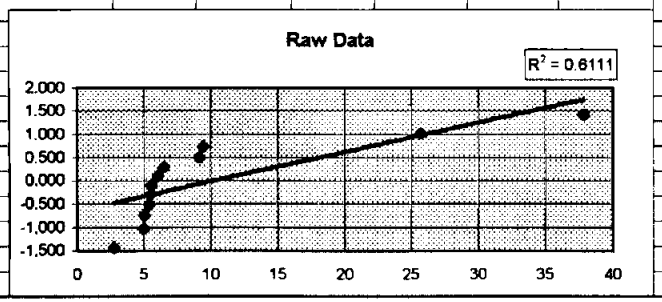
LEAD

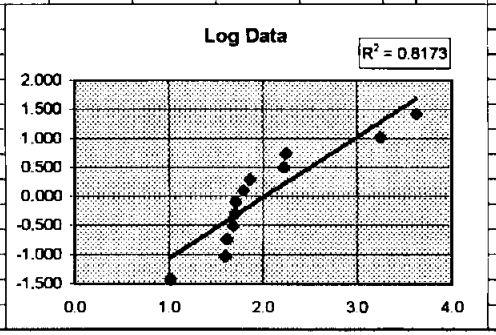
LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
HM-127	HM127-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
LF03-3D	LF033D-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
LF04-4A	LF044A-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
LF04-4B	LF044B-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
MWMTAC-001	MWMTAC001-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
USGS01T	USGS01T-M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
USGS02T	USGS02T-M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA530	WJETA530-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA531	WJETA531-M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA534	WJETA534-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA535	WJETA535-01M	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0008	0.0008				
			Mean		0.00080				
			Std Dev		0.00000				

4101131

MAGNESIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
HM120-01M	MG/L	MAGNESIUM	37.8000	37.8000	2.7600	-35.0400			3.6323	1.0152	-2.6171			12	0.923	1.426	=		0.0342	0.3000
USGS01T-M	MG/L	MAGNESIUM	25.7000	25.7000	4.9700	-20.7300			3.2465	1.6034	-1.6431			11	0.846	1.020	=		0.0342	0.3000
USGS02T-M	MG/L	MAGNESIUM	9.4700	9.4700	5.0400	-4.4300			2.2481	1.6174	-0.6307			10	0.769	0.736	=		0.0342	0.3000
LF033D-01M	MG/L	MAGNESIUM	9.1900	9.1900	5.3900	-3.8000			2.2181	1.6845	-0.5336			9	0.692	0.502	=		0.0342	0.3000
WJETA535-01M	MG/L	MAGNESIUM	6.4400	6.4400	5.5200	-0.9200			1.8625	1.7084	-0.1542			8	0.615	0.293	=		0.0342	0.3000
MWMTAC001-01M	MG/L	MAGNESIUM	6.0100	6.0100	5.5400	-0.4700			1.7934	1.7120	-0.0814			7	0.538	0.097	=		0.0342	0.3000
HM127-01M	MG/L	MAGNESIUM	5.5400	5.5400	6.0100	0.4700	0.0303	0.0142	1.7120	1.7934	0.0814	0.0303	0.0025	6	0.462	-0.097	=		0.0342	0.3000
WJETA534-01M	MG/L	MAGNESIUM	5.5200	5.5200	6.4400	0.9200	0.0922	0.0848	1.7084	1.8625	0.1542	0.0922	0.0142	5	0.385	-0.293	=		0.0342	0.3000
WJETA531-M	MG/L	MAGNESIUM	5.3900	5.3900	9.1900	3.8000	0.1586	0.6027	1.6845	2.2181	0.5336	0.1586	0.0846	4	0.308	-0.502	=		0.0342	0.3000
LF044A-01M	MG/L	MAGNESIUM	5.0400	5.0400	9.4700	4.4300	0.2347	1.0397	1.6174	2.2481	0.6307	0.2347	0.1480	3	0.231	-0.736	=		0.0342	0.3000
WJETA530-01M	MG/L	MAGNESIUM	4.9700	4.9700	25.7000	20.7300	0.3325	6.8927	1.6034	3.2465	1.6431	0.3325	0.5463	2	0.154	-1.020	=		0.0342	0.3000
LF044B-01M	MG/L	MAGNESIUM	2.7600	2.7600	37.8000	35.0400	0.5475	19.1844	1.0152	3.6323	2.6171	0.5475	1.4329	1	0.077	-1.426	=		0.0342	0.3000
							b =	27.8186				b =	2.2285							
		0	12																	
		% Non-detect	0.0%			W	0.639				W	0.839								
		Range (Raw)	2.7600	37.8000		W (crit)	0.859				W (crit)	0.859								
							Reject					Reject								
		Mean		10.31917					2.028											
		Std Dev		10.49317					0.734		0.839		0.639							
		UTL		39.028	2.7600	37.8000	10.31917	10.49317	56.580											
		Outlier Test (raw)		2.6189	Outlier!				29.953											
		Outlier Test (log)		2.1862	None															

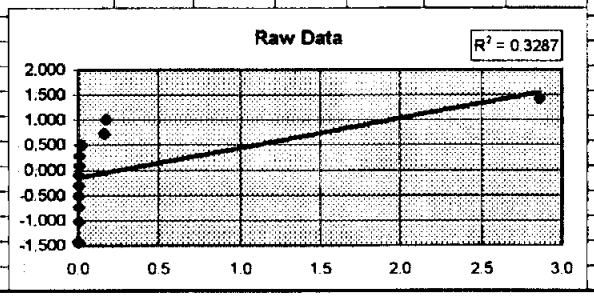


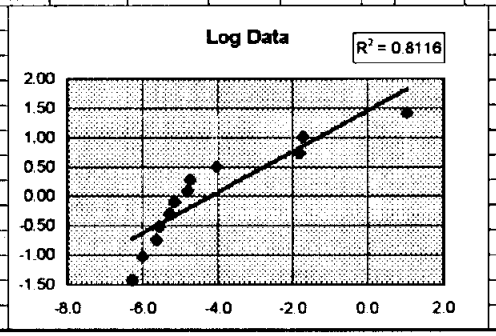


4101135

MANGANESE

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS02T-M	MG/L	MANGANESE	2.8600	2.8600	0.0019	-2.8581			1.0508	-6.2659	-7.3167			12	0.923	1.426	=		0.0013	0.0200
USGS01T-M	MG/L	MANGANESE	0.1750	0.1750	0.0025	-0.1725			-1.7430	-5.9915	-4.2485			11	0.846	1.020	=		0.0013	0.0200
HM120-01M	MG/L	MANGANESE	0.1630	0.1630	0.0036	-0.1594			-1.8140	-5.6268	-3.8128			10	0.769	0.736	=		0.0013	0.0200
LF033D-01M	MG/L	MANGANESE	0.0179	0.0179	0.0039	-0.0140			-4.0230	-5.5468	-1.5238			9	0.692	0.502	TR	F	0.0013	0.0200
WJETA531-M	MG/L	MANGANESE	0.0087	0.0087	0.0051	-0.0036			-4.7444	-5.2785	-0.5341			8	0.615	0.293	TR	F	0.0013	0.0200
WJETA535-01M	MG/L	MANGANESE	0.0082	0.0082	0.0058	-0.0024			-4.8036	-5.1499	-0.3463			7	0.538	0.097	TR	F	0.0013	0.0200
WJETA534-01M	MG/L	MANGANESE	0.0058	0.0058	0.0082	0.0024	0.0303	0.0001	-5.1499	-4.8036	0.3463	0.0303	0.0105	6	0.462	-0.097	TR	F	0.0013	0.0200
WJETA530-01M	MG/L	MANGANESE	0.0051	0.0051	0.0087	0.0036	0.0922	0.0003	-5.2785	-4.7444	0.5341	0.0922	0.0492	5	0.385	-0.293	TR	F	0.0013	0.0200
LF044A-01M	MG/L	MANGANESE	0.0039	0.0039	0.0179	0.0140	0.1586	0.0022	-5.5468	-4.0230	1.5238	0.1586	0.2417	4	0.308	-0.502	TR	F	0.0013	0.0200
HM127-01M	MG/L	MANGANESE	0.0036	0.0036	0.1630	0.1594	0.2347	0.0374	-5.6268	-1.8140	3.8128	0.2347	0.8949	3	0.231	-0.736	TR	F	0.0013	0.0200
LF044B-01M	MG/L	MANGANESE	0.0025	0.0025	0.1750	0.1725	0.3325	0.0574	-5.9915	-1.7430	4.2485	0.3325	1.4126	2	0.154	-1.020	TR	F	0.0013	0.0200
MWMTAC001-01M	MG/L	MANGANESE	0.0019	0.0019	2.8600	2.8581	0.5475	1.5648	-6.2659	1.0508	7.3167	0.5475	4.0059	1	0.077	-1.426	TR	F	0.0013	0.0200
							b =	1.6622				b =	6.6148							
		0	12																	
		% Non-detect	0.0%			W	0.376				W	0.820								
		Range (Raw)	0.0019	2.8600		W (crit)	0.859				W (crit)	0.859								
							Reject					Reject								
		Mean		0.27130					-4.161											
		Std Dev		0.81765					2.203		0.820		0.376							
		UTL		2.508	0.0019	2.8600	0.27130	0.81765	6.456											
		Outlier Test (raw)		3.1660	Outlier!				0.956											
		Outlier Test (log)		2.3663	Outlier!															





4101136

MERCURY

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
HM-127	HM127-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
LF03-3D	LF033D-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
LF04-4A	LF044A-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
LF04-4B	LF044B-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
MWMTAC-001	MWMTAC001-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
USGS01T	USGS01T-M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
USGS02T	USGS02T-M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA530	WJETA530-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA531	WJETA531-M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA534	WJETA534-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA535	WJETA535-01M	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0001	0.0001				
			Mean		0.00005				
			Std Dev		0.00000				

4101137

MOLYBDENUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
HM-127	HM127-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
LF03-3D	LF033D-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
LF04-4A	LF044A-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
LF04-4B	LF044B-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
MWMTAC-001	MWMTAC001-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
USGS01T	USGS01T-M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
USGS02T	USGS02T-M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA530	WJETA530-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA531	WJETA531-M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA534	WJETA534-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA535	WJETA535-01M	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0072	0.0072				
			Mean		0.00720				
			Std Dev		0.00000				

4101138

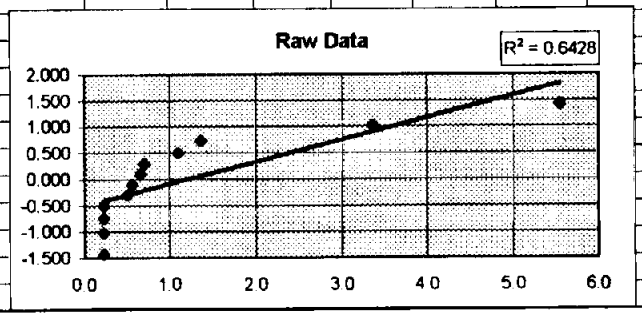
NICKEL

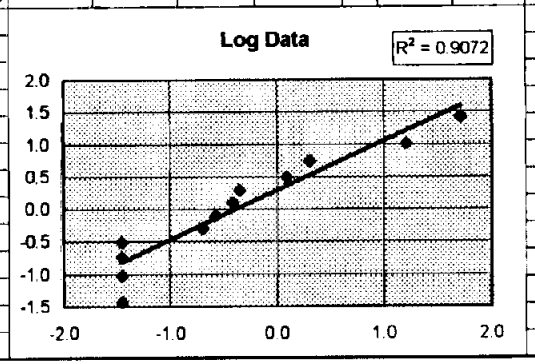
LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
WJETA530	WJETA530-01M	MG/L	NICKEL	0.0204	0.0204	=		0.0020	0.0100
HM-120	HM120-01M	MG/L	NICKEL	0.0039	0.0039	TR	F	0.0020	0.0100
USGS02T	USGS02T-M	MG/L	NICKEL	0.0030	0.0030	TR	F	0.0020	0.0100
HM-127	HM127-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
LF03-3D	LF033D-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
LF04-4A	LF044A-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
LF04-4B	LF044B-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
MWMTAC-001	MWMTAC001-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
USGS01T	USGS01T-M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
WJETA531	WJETA531-M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
WJETA534	WJETA534-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
WJETA535	WJETA535-01M	MG/L	NICKEL	0.0000	0.0010	ND	U	0.0020	0.0100
			9	12					
			% Non-detect	75.0%					
			Range (Raw)	0.0010	0.0204				
			Mean		0.00303				
			Std Dev		0.00556				

4101133

POTASSIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS02T-M	MG/L	POTASSIUM	5.5500	5.5500	0.2330	-5.3170			1.7138	-1.4567	-3.1705			12	0.923	1.426	=		0.4660	5.0000
USGS01T-M	MG/L	POTASSIUM	3.3600	3.3600	0.2330	-3.1270			1.2119	-1.4567	-2.6687			11	0.846	1.020	TR	F	0.4660	5.0000
LF033D-01M	MG/L	POTASSIUM	1.3600	1.3600	0.2330	-1.1270			0.3075	-1.4567	-1.7642			10	0.769	0.736	TR	F	0.4660	5.0000
HM120-01M	MG/L	POTASSIUM	1.1000	1.1000	0.2330	-0.6670			0.0953	-1.4567	-1.5520			9	0.692	0.502	TR	F	0.4660	5.0000
WJETA530-01M	MG/L	POTASSIUM	0.7100	0.7100	0.5040	-0.2060			-0.3425	-0.6852	-0.3427			8	0.615	0.293	TR	F	0.4660	5.0000
HM127-01M	MG/L	POTASSIUM	0.6640	0.6640	0.5680	-0.0960			-0.4095	-0.5656	-0.1562			7	0.538	0.097	TR	F	0.4660	5.0000
WJETA534-01M	MG/L	POTASSIUM	0.5680	0.5680	0.6640	0.0960	0.0303	0.0029	-0.5656	-0.4095	0.1562	0.0303	0.0047	6	0.462	-0.097	TR	F	0.4660	5.0000
MWMTAC001-01M	MG/L	POTASSIUM	0.5040	0.5040	0.7100	0.2060	0.0922	0.0190	-0.6852	-0.3425	0.3427	0.0922	0.0316	5	0.385	-0.293	TR	F	0.4660	5.0000
LF044A-01M	MG/L	POTASSIUM	0.0000	0.2330	1.1000	0.8670	0.1586	0.1375	-1.4567	0.0953	1.5520	0.1586	0.2462	4	0.308	-0.502	ND	U	0.4660	5.0000
LF044B-01M	MG/L	POTASSIUM	0.0000	0.2330	1.3600	1.1270	0.2347	0.2645	-1.4567	0.3075	1.7642	0.2347	0.4141	3	0.231	-0.736	ND	U	0.4660	5.0000
WJETA531-M	MG/L	POTASSIUM	0.0000	0.2330	3.3600	3.1270	0.3325	1.0397	-1.4567	1.2119	2.6687	0.3325	0.8873	2	0.154	-1.020	ND	U	0.4660	5.0000
WJETA535-01M	MG/L	POTASSIUM	0.0000	0.2330	5.5500	5.3170	0.5475	2.9111	-1.4567	1.7138	3.1705	0.5475	1.7359	1	0.077	-1.426	ND	U	0.4660	5.0000
							b =	**4.3747**				**b =**	**3.3197**							
		4	12																	
		% Non-detect	33.3%			W	0.665				W	0.890								
		Range (Raw)	0.2330	5.5500		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		1.22900					-0.375											
		Std Dev		1.61710					1.061		0.890		0.665							
		UTL		5.653	0.2330	5.5500	1.22900	1.61710	12.527											
		Outlier Test (raw)		2.6721	Outlier!				4.993											
		Outlier Test (log)		1.9687	None															





4101110

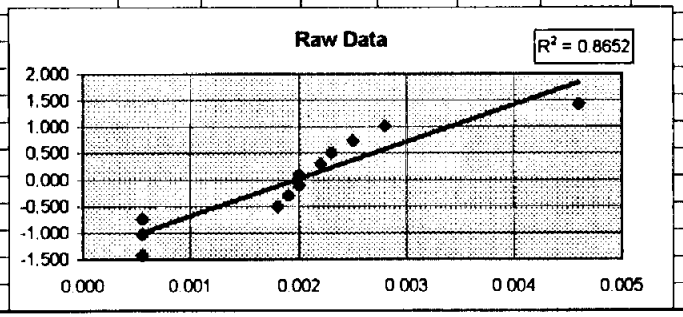
POTASSIUM - CENSORED

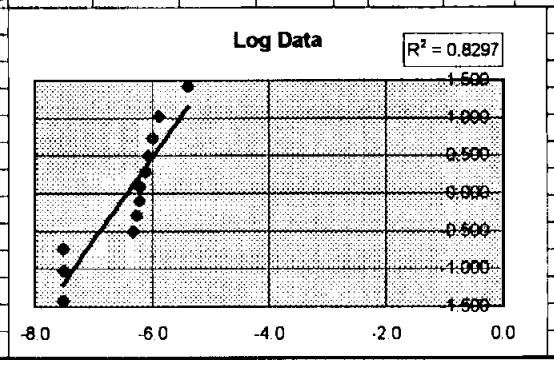
SAMPLE_ID	UNITS	NAME	VALUE	CALC	R	i/(n+1)	mi	R	Detects-Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)				
USGS02T-M	MG/L	POTASSIUM	5.5500	5.5500	12	0.923	1.426	8	0.889	1.220642	1.7138	**Cohen's Adjustment (log data)**			
USGS01T-M	MG/L	POTASSIUM	3.3600	3.3600	11	0.846	1.020	7	0.778	0.76471	1.2119	Mean of Detects =	0.166		
LF033D-01M	MG/L	POTASSIUM	1.3600	1.3600	10	0.769	0.736	6	0.667	0.430728	0.3075	Sample Variance =	0.766		
HM120-01M	MG/L	POTASSIUM	1.1000	1.1000	9	0.692	0.502	5	0.556	0.13971	0.0953	h=(n-l)/n	0.333		
WJETA530-01M	MG/L	POTASSIUM	0.7100	0.7100	8	0.615	0.293	4	0.444	-0.13971	-0.3425	$\gamma=s_d^2/(y_d-\ln(DL))^2$	0.887		
HM127-01M	MG/L	POTASSIUM	0.6640	0.6640	7	0.538	0.097	3	0.333	-0.430728	-0.4095	λ from table	0.612		
WJETA534-01M	MG/L	POTASSIUM	0.5680	0.5680	6	0.462	-0.097	2	0.222	-0.76471	-0.5656	$y=y_d-\lambda(y_d-\ln(DL))$	-0.403		
MWMTAC001-01M	MG/L	POTASSIUM	0.5040	0.5040	5	0.385	-0.293	1	0.111	-1.220642	-0.6852	$sy=(s_d^2+l(y_d-DL)^2)^{0.5}$	1.138		
LF044A-01M	MG/L	POTASSIUM	0.0000	0.2330	4	0.308	-0.502				-1.4567	UTLy=y+kSy	1.724	2.7103	(min 95)
LF044B-01M	MG/L	POTASSIUM	0.0000	0.2330	3	0.231	-0.736				-1.4567				
WJETA531-M	MG/L	POTASSIUM	0.0000	0.2330	2	0.154	-1.020				-1.4567	Mean	1.2769	Gilbert	
WJETA535-01M	MG/L	POTASSIUM	0.0000	0.2330	1	0.077	-1.426				-1.4567	Std Dev	2.0787	Gilbert	
												UTL	5.6074	15.0338	(min 95)
												Outlier? =	2.0557	None	

4101141

SELENIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
WJETA531-M	MG/L	SELENIUM	0.0046	0.0046	0.0006	-0.0041			-5.3817	-7.5056	-2.1239			12	0.923	1.426	TR	F	0.0011	0.0050
LF044B-01M	MG/L	SELENIUM	0.0028	0.0028	0.0006	-0.0023			-5.8781	-7.5056	-1.6275			11	0.846	1.020	TR	F	0.0011	0.0050
LF044A-01M	MG/L	SELENIUM	0.0025	0.0025	0.0006	-0.0020			-5.9915	-7.5056	-1.5141			10	0.769	0.736	TR	F	0.0011	0.0050
MWMTAC001-01M	MG/L	SELENIUM	0.0023	0.0023	0.0018	-0.0005			-6.0748	-6.3200	-0.2451			9	0.692	0.502	TR	F	0.0011	0.0050
WJETA530-01M	MG/L	SELENIUM	0.0022	0.0022	0.0019	-0.0003			-6.1193	-6.2659	-0.1466			8	0.615	0.293	TR	F	0.0011	0.0050
LF033D-01M	MG/L	SELENIUM	0.0020	0.0020	0.0020	0.0000			-6.2146	-6.2146	0.0000			7	0.538	0.097	TR	F	0.0011	0.0050
USGS02T-M	MG/L	SELENIUM	0.0020	0.0020	0.0020	0.0000	0.0303	0.0000	-6.2146	-6.2146	0.0000	0.0303	0.0000	6	0.462	-0.097	TR	F	0.0011	0.0050
WJETA534-01M	MG/L	SELENIUM	0.0019	0.0019	0.0022	0.0003	0.0922	0.0000	-6.2659	-6.1193	0.1466	0.0922	0.0135	5	0.385	-0.293	TR	F	0.0011	0.0050
HM120-01M	MG/L	SELENIUM	0.0018	0.0018	0.0023	0.0005	0.1586	0.0001	-6.3200	-6.0748	0.2451	0.1586	0.0389	4	0.308	-0.502	TR	F	0.0011	0.0050
HM127-01M	MG/L	SELENIUM	0.0000	0.0006	0.0025	0.0020	0.2347	0.0005	-7.5056	-5.9915	1.5141	0.2347	0.3554	3	0.231	-0.736	ND	U	0.0011	0.0050
USGS01T-M	MG/L	SELENIUM	0.0000	0.0006	0.0028	0.0023	0.3325	0.0007	-7.5056	-5.8781	1.6275	0.3325	0.5411	2	0.154	-1.020	ND	U	0.0011	0.0050
WJETA535-01M	MG/L	SELENIUM	0.0000	0.0006	0.0046	0.0041	0.5475	0.0022	-7.5056	-5.3817	2.1239	0.5475	1.1628	1	0.077	-1.426	ND	U	0.0011	0.0050
							b =	**0.0035**				**b =**	**2.1117**							
		3	12																	
		% Non-detect	25.0%			W	0.882				W	0.823								
		Range (Raw)	0.0006	0.0046		W (crit)	0.859				W (crit)	0.859								
							Accept					Reject								
		Mean		0.00198					-6.415											
		Std Dev		0.00113					0.702		0.823		0.882							
		UTL		0.00508	0.0006	0.0046	0.00198	0.00113	0.011											
		Outlier Test (raw)		2.3122	Outlier!				0.006											
		Outlier Test (log)		1.4720	None															

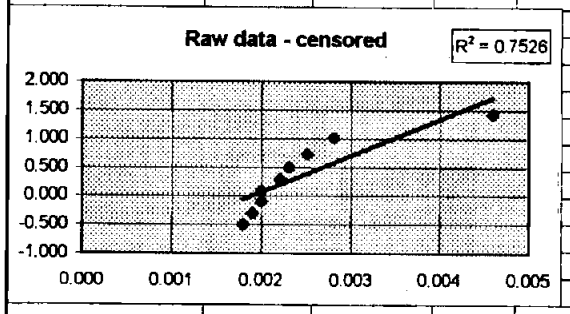


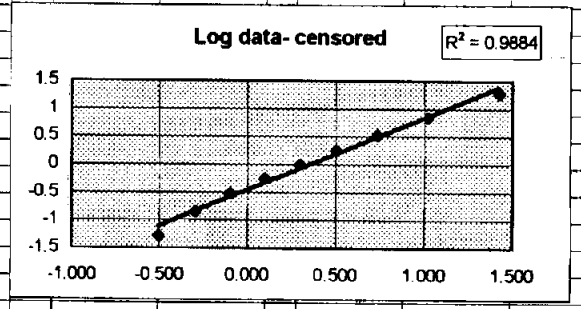


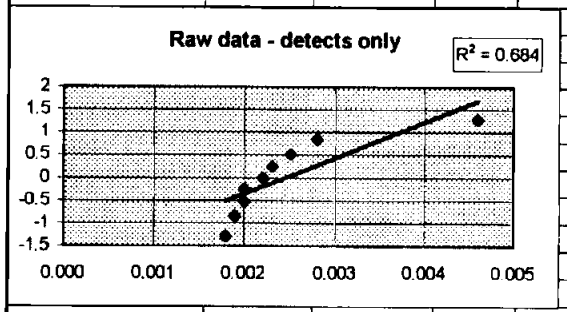
410114?

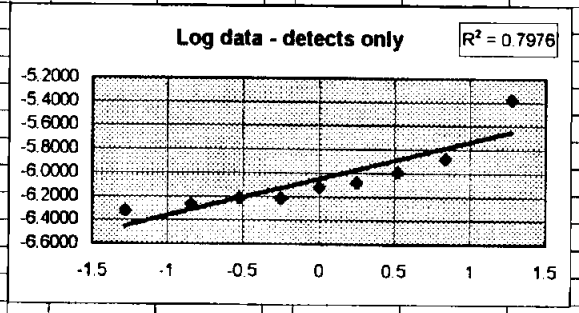
SELENIUM - CENSORED

SAMPLE_ID	UNITS	NAME	VALUE	CALC	R	i/(n+1)	mi	R	Detects-Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)				
WJETA531-M	MG/L	SELENIUM	0.0046	0.0046	12	0.923	1.426	9	0.900	1.281551	-5.3817	**Cohen's Adjustment (log data)**			
LF044B-01M	MG/L	SELENIUM	0.0028	0.0028	11	0.846	1.020	8	0.800	0.841621	-5.8781	Mean of Detects =	-6.051		
LF044A-01M	MG/L	SELENIUM	0.0025	0.0025	10	0.769	0.736	7	0.700	0.524401	-5.9915	Sample Variance =	0.082		
MWMTAC001-01M	MG/L	SELENIUM	0.0023	0.0023	9	0.692	0.502	6	0.600	0.253347	-6.0748	h=(n-l)/n	0.250		
WJETA530-01M	MG/L	SELENIUM	0.0022	0.0022	8	0.615	0.293	5	0.500	0	-6.1193	$\gamma=s_d^2/(y_d-\ln(DL))^2$	0.142		
LF033D-01M	MG/L	SELENIUM	0.0020	0.0020	7	0.538	0.097	4	0.400	-0.25335	-6.2146	λ from table	0.337		
USGS02T-M	MG/L	SELENIUM	0.0020	0.0020	6	0.462	-0.097	3	0.300	-0.5244	-6.2146	$y=y_d-\lambda(y_d-\ln(DL))$	-6.308		
WJETA534-01M	MG/L	SELENIUM	0.0019	0.0019	5	0.385	-0.293	2	0.200	-0.84162	-6.2659	$sy=(s_d^2+l(y_d-DL)^2)^{0.5}$	0.527		
HM120-01M	MG/L	SELENIUM	0.0018	0.0018	4	0.308	-0.502	1	0.100	-1.28155	-6.3200	UTLy=y+kSy	-5.323	-4.8661	(min 95)
HM127-01M	MG/L	SELENIUM	0.0000	0.0006	3	0.231	-0.736				-7.5056				
USGS01T-M	MG/L	SELENIUM	0.0000	0.0006	2	0.154	-1.020				-7.5056	Mean	0.0021	Gilbert	
WJETA535-01M	MG/L	SELENIUM	0.0000	0.0006	1	0.077	-1.426				-7.5056	Std Dev	0.0012	Gilbert	
												UTL	0.0049	0.0077	(min 95)
												Outlier? =	2.1164	None	









Censored more linear than Detects-only
Probability plots below support Cohen's assumption that
contaminants are present at concentrations below the detection limit

4101143

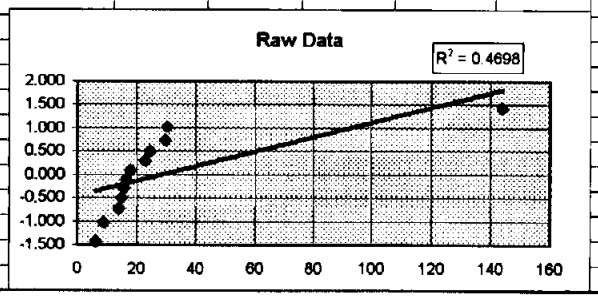
SILVER

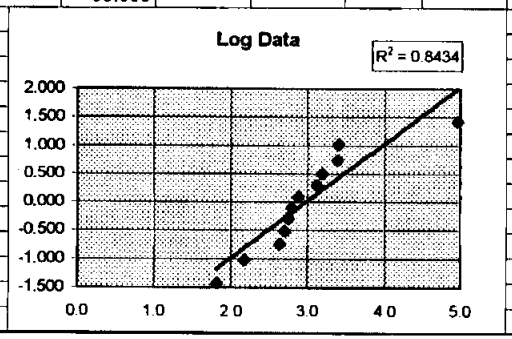
LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-127	HM127-01M	MG/L	SILVER	0.0002	0.0002	TR	F	0.0002	0.0010
HM-120	HM120-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
LF03-3D	LF033D-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
LF04-4A	LF044A-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
LF04-4B	LF044B-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
MWMTAC-001	MWMTAC001-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
USGS01T	USGS01T-M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
USGS02T	USGS02T-M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA530	WJETA530-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA531	WJETA531-M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA534	WJETA534-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA535	WJETA535-01M	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0001	0.0002				
			Mean		0.00011				
			Std Dev		0.00003				

4101144

SODIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
HM120-01M	MG/L	SODIUM	144.0000	144.0000	6.1700	-137.8300			4.9698	1.8197	-3.1501			12	0.923	1.426	=		0.0500	0.3000
USGS02T-M	MG/L	SODIUM	30.3000	30.3000	8.8100	-21.4900			3.4111	2.1759	-1.2353			11	0.846	1.020	=		0.0500	0.3000
LF044A-01M	MG/L	SODIUM	29.7000	29.7000	14.0000	-15.7000			3.3911	2.6391	-0.7521			10	0.769	0.736	=		0.0500	0.3000
WJETA535-01M	MG/L	SODIUM	24.6000	24.6000	14.9000	-9.7000			3.2027	2.7014	-0.5014			9	0.692	0.502	=		0.0500	0.3000
USGS01T-M	MG/L	SODIUM	22.8000	22.8000	15.6000	-7.2000			3.1268	2.7473	-0.3795			8	0.615	0.293	=		0.0500	0.3000
HM127-01M	MG/L	SODIUM	17.9000	17.9000	16.3000	-1.6000			2.8848	2.7912	-0.0936			7	0.538	0.097	=		0.0500	0.3000
WJETA534-01M	MG/L	SODIUM	16.3000	16.3000	17.9000	1.6000	0.0303	0.0485	2.7912	2.8848	0.0936	0.0303	0.0028	6	0.462	-0.097	=		0.0500	0.3000
LF033D-01M	MG/L	SODIUM	15.6000	15.6000	22.8000	7.2000	0.0922	0.6638	2.7473	3.1268	0.3795	0.0922	0.0350	5	0.385	-0.293	=		0.0500	0.3000
WJETA530-01M	MG/L	SODIUM	14.9000	14.9000	24.6000	9.7000	0.1586	1.5384	2.7014	3.2027	0.5014	0.1586	0.0795	4	0.308	-0.502	=		0.0500	0.3000
MWMTAC001-01M	MG/L	SODIUM	14.0000	14.0000	29.7000	15.7000	0.2347	3.6848	2.6391	3.3911	0.7521	0.2347	0.1765	3	0.231	-0.736	=		0.0500	0.3000
WJETA531-M	MG/L	SODIUM	8.8100	8.8100	30.3000	21.4900	0.3325	7.1454	2.1759	3.4111	1.2353	0.3325	0.4107	2	0.154	-1.020	=		0.0500	0.3000
LF044B-01M	MG/L	SODIUM	6.1700	6.1700	144.0000	137.8300	0.5475	75.4619	1.8197	4.9698	3.1501	0.5475	1.7247	1	0.077	-1.426	=		0.0500	0.3000
							b =	88.5429				b =	2.4293							
		0	12																	
		% Non-detect	0.0%			W	0.519				W	0.885								
		Range (Raw)	6.1700	144.0000		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		28.75667					2.988											
		Std Dev		37.05154					0.779		0.885		0.519							
		UTL		130.130	6.1700	144.0000	28.75667	37.05154	167.160											
		Outlier Test (raw)		3.1104	Outlier!				85.099											
		Outlier Test (log)		2.5445	Outlier!															





4101145

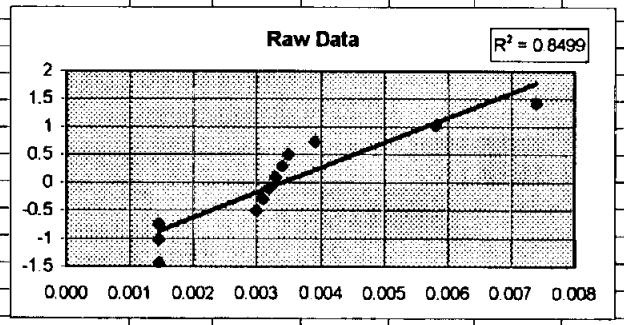
THALLIUM

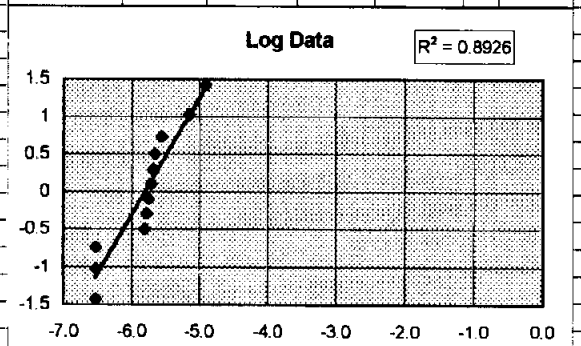
LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-120	HM120-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
HM-127	HM127-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
LF03-3D	LF033D-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
LF04-4A	LF044A-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
LF04-4B	LF044B-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
MWMTAC-001	MWMTAC001-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
USGS01T	USGS01T-M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
USGS02T	USGS02T-M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA530	WJETA530-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA531	WJETA531-M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA534	WJETA534-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA535	WJETA535-01M	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0316	0.0316				
			Mean		0.03160				
			Std Dev		0.00000				

4101146

VANADIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS01T-M	MG/L	VANADIUM	0.0074	0.0074	0.0015	-0.0060			-4.9063	-6.5362	-1.6299			11	0.917	1.383	TR	F	0.0029	0.0800
WJETA530-01M	MG/L	VANADIUM	0.0058	0.0058	0.0015	-0.0044			-5.1499	-6.5362	-1.3863			10	0.833	0.967	TR	F	0.0029	0.0800
HM120-01M	MG/L	VANADIUM	0.0039	0.0039	0.0030	-0.0009			-5.5468	-5.8091	-0.2624			9	0.750	0.674	TR	F	0.0029	0.0800
WJETA535-01M	MG/L	VANADIUM	0.0035	0.0035	0.0031	-0.0004			-5.6550	-5.7764	-0.1214			8	0.667	0.431	TR	F	0.0029	0.0800
LF044A-01M	MG/L	VANADIUM	0.0034	0.0034	0.0032	-0.0002			-5.6840	-5.7446	-0.0606			7	0.583	0.210	TR	F	0.0029	0.0800
LF044B-01M	MG/L	VANADIUM	0.0033	0.0033	0.0033	0.0000	0.0000	0.0000	-5.7138	-5.7138	0.0000	0.0000	0.0000	6	0.500	0.000	TR	F	0.0029	0.0800
MWMTAC001-01M	MG/L	VANADIUM	0.0032	0.0032	0.0034	0.0002	0.0695	0.0000	-5.7446	-5.6840	0.0606	0.0695	0.0042	5	0.417	-0.210	TR	F	0.0029	0.0800
HM127-01M	MG/L	VANADIUM	0.0031	0.0031	0.0035	0.0004	0.1429	0.0001	-5.7764	-5.6550	0.1214	0.1429	0.0173	4	0.333	-0.431	TR	F	0.0029	0.0800
WJETA534-01M	MG/L	VANADIUM	0.0030	0.0030	0.0039	0.0009	0.2260	0.0002	-5.8091	-5.5468	0.2624	0.2260	0.0593	3	0.250	-0.674	TR	F	0.0029	0.0800
USGS02T-M	MG/L	VANADIUM	0.0000	0.0015	0.0058	0.0044	0.3315	0.0014	-6.5362	-5.1499	1.3863	0.3315	0.4596	2	0.167	-0.967	ND	U	0.0029	0.0800
WJETA531-M	MG/L	VANADIUM	0.0000	0.0015	0.0074	0.0060	0.5601	0.0033	-6.5362	-4.9063	1.6299	0.5601	0.9129	1	0.083	-1.383	ND	U	0.0029	0.0800
							b =	**0.0050**				**b =**	**1.4533**							
		2	11																	
		% Non-detect	18.2%	18%		W	0.863				W	0.893								
		Range (Raw)	0.0015	0.0074		W (crit)	0.850				W (crit)	0.850								
							Accept					Accept								
		Mean		0.0036					-5.733											
		Std Dev		0.0017					0.486		0.893		0.863							
		UTL		0.0083		0.0074	0.00359	0.00172	0.0123											
		Outlier Test (raw)		2.2168	None				0.008											
		Outlier Test (log)		1.6991	None															

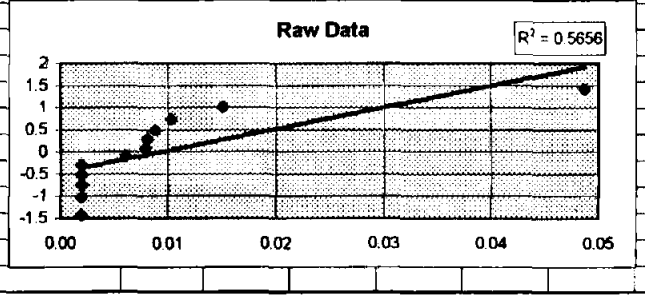


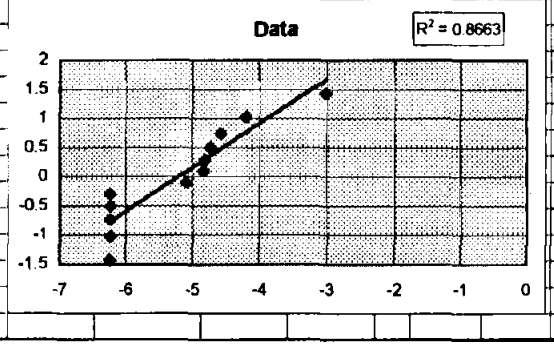


4101147

ZINC

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	$i/(n+1)$	mi	PQ	LQ	DET	PQL
WJETA535-01M	MG/L	ZINC	0.0487	0.0487	0.0020	-0.0468			-3.0221	-6.2399	-3.2178			12	0.923	1.426	=		0.0039	0.0200
HM120-01M	MG/L	ZINC	0.0150	0.0150	0.0020	-0.0131			-4.1997	-6.2399	-2.0402			11	0.846	1.020	TR	F	0.0039	0.0200
WJETA534-01M	MG/L	ZINC	0.0103	0.0103	0.0020	-0.0084			-4.5756	-6.2399	-1.6643			10	0.769	0.736	TR	F	0.0039	0.0200
MWMTAC001-01M	MG/L	ZINC	0.0088	0.0088	0.0020	-0.0069			-4.7330	-6.2399	-1.5069			9	0.692	0.502	TR	F	0.0039	0.0200
WJETA530-01M	MG/L	ZINC	0.0081	0.0081	0.0061	-0.0020			-4.8159	-5.0995	-0.2836			8	0.615	0.293	TR	F	0.0039	0.0200
LF033D-01M	MG/L	ZINC	0.0079	0.0079	0.0079	0.0000	0.0000	0.0000	-4.8409	-4.8409	0.0000	0.0000	0.0000	7	0.538	0.097	TR	F	0.0039	0.0200
USGS01T-M	MG/L	ZINC	0.0061	0.0061	0.0081	0.0020	0.0695	0.0001	-5.0995	-4.8159	0.2836	0.0695	0.0197	6	0.462	-0.097	TR	F	0.0039	0.0200
LF044A-01M	MG/L	ZINC	0.0000	0.0020	0.0088	0.0069	0.1429	0.0010	-6.2399	-4.7330	1.5069	0.1429	0.2153	4	0.308	-0.502	ND	U	0.0039	0.0200
LF044B-01M	MG/L	ZINC	0.0000	0.0020	0.0103	0.0084	0.2260	0.0019	-6.2399	-4.5756	1.6643	0.2260	0.3761	3	0.231	-0.736	ND	U	0.0039	0.0200
USGS02T-M	MG/L	ZINC	0.0000	0.0020	0.0150	0.0131	0.3315	0.0043	-6.2399	-4.1997	2.0402	0.3315	0.6763	2	0.154	-1.020	ND	U	0.0039	0.0200
WJETA531-M	MG/L	ZINC	0.0000	0.0020	0.0487	0.0468	0.5601	0.0262	-6.2399	-3.0221	3.2178	0.5601	1.8023	1	0.077	-1.426	ND	U	0.0039	0.0200
							b =	**0.0335**				b =	**3.0898**							
		4	11																	
		% Non-detect	36.4%	36%		W	0.622				W	0.877								
		Range (Raw)	0.0020	0.0487		W (crit)	0.850				W (crit)	0.850								
							Reject					Accept								
		Mean		0.01025					-5.113											
		Std Dev		0.01344					1.043		0.877		0.622							
		UTL		0.047	0.0020	0.0487	0.01025	0.01344	0.104											
		Outlier Test (raw)		2.8615	Outlier!				0.042											
		Outlier Test (log)		2.0047	None															

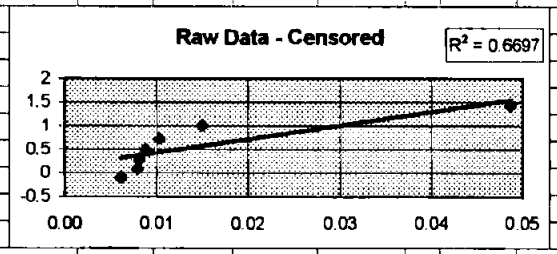


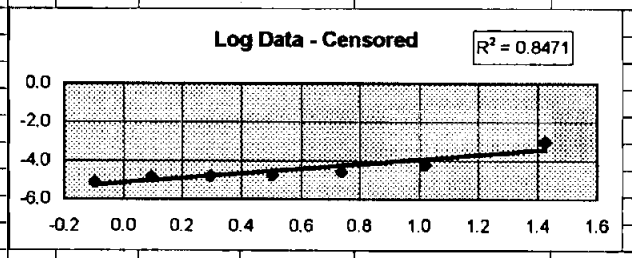


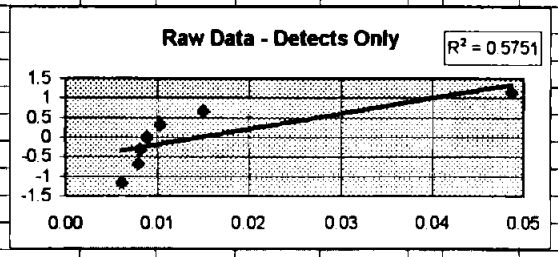
410148

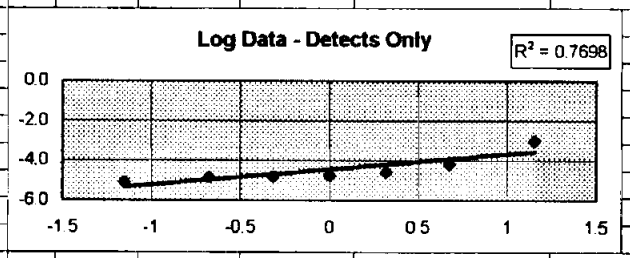
ZINC-CENSORED

SAMPLE_ID	UNITS	NAME	VALUE	CALC	R	i/(n+1)	mi	R	Detects Only Probs [i/(n+1)]	Normal Quantiles (mi)	LN(CALC)				
WJETA535-01M	MG/L	ZINC	0.0487	0.0487	11	0.917	1.383	7	0.875	1.150349	-3.0221	**Cohen's Adjustment (log data)**			
HM120-01M	MG/L	ZINC	0.0150	0.0150	10	0.833	0.967	6	0.750	0.67449	-4.1997	Mean of Detects =	-4.470		
WJETA534-01M	MG/L	ZINC	0.0103	0.0103	9	0.750	0.674	5	0.625	0.318639	-4.5756	Sample Variance =	0.484		
MWMTAC001-01M	MG/L	ZINC	0.0088	0.0088	8	0.667	0.431	4	0.500	0	-4.7330	h=(n-l)/n	0.364		
WJETA530-01M	MG/L	ZINC	0.0081	0.0081	7	0.583	0.210	3	0.375	-0.31864	-4.8159	$\gamma=s_d^2/(y_d-\ln(DL))^2$	0.417		
LF033D-01M	MG/L	ZINC	0.0079	0.0079	6	0.500	0.000	2	0.250	-0.67449	-4.8409	λ from table	0.617		
USGS01T-M	MG/L	ZINC	0.0061	0.0061	5	0.417	-0.210	1	0.125	-1.15035	-5.0995	$y=y_d-\lambda(y_d-\ln(DL))$	-5.134		
LF044A-01M	MG/L	ZINC	0.0000	0.0020	4	0.333	-0.431				-6.2399	$sy=(s_d^2+l(y_d-DL)^2)^{0.5}$	1.095		
LF044B-01M	MG/L	ZINC	0.0000	0.0020	3	0.250	-0.674				-6.2399	UTLy=y+kSy	-3.087	-2.1372	(min 95)
USGS02T-M	MG/L	ZINC	0.0000	0.0020	2	0.167	-0.967				-6.2399				
WJETA531-M	MG/L	ZINC	0.0000	0.0020	1	0.083	-1.383				-6.2399	Mean	0.0107	Gilbert	
												Std Dev	0.0164	Gilbert	
												UTL	0.0457	0.1180	(min 95)









Censored more linear than Detects-only
Probability plots below support Cohen's assumption that
contaminants are present at concentrations below the detection limit

4101143

ALUMINUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS01T	MG/L	ALUMINUM	2.4500	2.4500	0.0699	-2.3801			0.8961	-2.6607	-3.5568			12	0.923	1.426	=		0.0122	0.5000
LF044A-01	MG/L	ALUMINUM	2.3500	2.3500	0.0942	-2.2558			0.8544	-2.3623	-3.2168			11	0.846	1.020	=		0.0122	0.5000
LF044B-01	MG/L	ALUMINUM	1.6600	1.6600	0.2040	-1.4560			0.5068	-1.5896	-2.0965			10	0.769	0.736	=		0.0122	0.5000
MWMTAC001-01	MG/L	ALUMINUM	0.8000	0.8000	0.2850	-0.5150			-0.2231	-1.2553	-1.0321			9	0.692	0.502	=		0.0122	0.5000
WJETA534-01	MG/L	ALUMINUM	0.6000	0.6000	0.2940	-0.3060			-0.5108	-1.2242	-0.7133			8	0.615	0.293	=		0.0122	0.5000
WJETA535-01	MG/L	ALUMINUM	0.5770	0.5770	0.3020	-0.2750			-0.5499	-1.1973	-0.6474			7	0.538	0.097	=		0.0122	0.5000
WJETA530-01	MG/L	ALUMINUM	0.3020	0.3020	0.5770	0.2750	0.0303	0.0083	-1.1973	-0.5499	0.6474	0.0303	0.0196	6	0.462	-0.097	TR	F	0.0122	0.5000
HM127-01	MG/L	ALUMINUM	0.2940	0.2940	0.6000	0.3060	0.0922	0.0282	-1.2242	-0.5108	0.7133	0.0922	0.0658	5	0.385	-0.293	TR	F	0.0122	0.5000
USGS02T	MG/L	ALUMINUM	0.2850	0.2850	0.8000	0.5150	0.1586	0.0817	-1.2553	-0.2231	1.0321	0.1586	0.1637	4	0.308	-0.502	TR	F	0.0122	0.5000
LF033D-01	MG/L	ALUMINUM	0.2040	0.2040	1.6600	1.4560	0.2347	0.3417	-1.5896	0.5068	2.0965	0.2347	0.4920	3	0.231	-0.736	TR	F	0.0122	0.5000
WJETA531	MG/L	ALUMINUM	0.0942	0.0942	2.3500	2.2558	0.3325	0.7501	-2.3623	0.8544	3.2168	0.3325	1.0696	2	0.154	-1.020	TR	F	0.0122	0.5000
HM120-01	MG/L	ALUMINUM	0.0699	0.0699	2.4500	2.3801	0.5475	1.3031	-2.6607	0.8961	3.5568	0.5475	1.9473	1	0.077	-1.426	TR	F	0.0122	0.5000
							b =	**2.5131**				**b =**	**3.7580**							
		0	12																	
		% Non-detect	0.0%			W	0.779				W	0.950								
		Range (Raw)	0.0699	2.4500		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		0.80718					-0.776											
		Std Dev		0.85861					1.162		0.950		0.779							
		UTL		3.156	0.0699	2.4500	0.80718	0.85861	11.070											
		Outlier Test (raw)		1.9133	None				4.041											
		Outlier Test (log)		1.4386	None															

4101150

ANTIMONY

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-127	HM127-01	MG/L	ANTIMONY	0.0024	0.0024	TR	F	0.0020	0.0050
USGS01T	USGS01T	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
USGS02T	USGS02T	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
HM-120	HM120-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
LF03-3D	LF033D-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
LF04-4A	LF044A-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
LF04-4B	LF044B-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
MWMTAC-001	MWMTAC001-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA530	WJETA530-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA531	WJETA531	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA534	WJETA534-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
WJETA535	WJETA535-01	MG/L	ANTIMONY	0.0000	0.0010	ND	U	0.0020	0.0050
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0010	0.0024				
			Mean		0.00112				
			Std Dev		0.00040				

4101151

ARSENIC

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	ARSENIC	0.0067	0.0067	=		0.0049	0.0050
USGS02T	USGS02T	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
HM-120	HM120-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
HM-127	HM127-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
LF03-3D	LF033D-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
LF04-4A	LF044A-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
LF04-4B	LF044B-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
MWMTAC-001	MWMTAC001-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA530	WJETA530-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA531	WJETA531	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA534	WJETA534-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
WJETA535	WJETA535-01	MG/L	ARSENIC	0.0000	0.0025	ND	U	0.0049	0.0050
			11	12					
			% Non-det	91.7%					
			Range (Ra	0.0025	0.0067				
			Mean		0.00280				
			Std Dev		0.00123				

4101152

BARIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS02T	MG/L	BARIUM	0.5130	0.5130	0.0358	-0.4772			-0.6675	-3.3298	-2.6623			12	0.923	1.426	=		0.0010	0.0200
USGS01T	MG/L	BARIUM	0.3670	0.3670	0.0657	-0.3013			-1.0024	-2.7227	-1.7203			11	0.846	1.020	=		0.0010	0.0200
LF044A-01	MG/L	BARIUM	0.2910	0.2910	0.0979	-0.1931			-1.2344	-2.3238	-1.0894			10	0.769	0.736	=		0.0010	0.0200
WJETA534-01	MG/L	BARIUM	0.1970	0.1970	0.1200	-0.0770			-1.6246	-2.1203	-0.4957			9	0.692	0.502	=		0.0010	0.0200
WJETA531	MG/L	BARIUM	0.1870	0.1870	0.1320	-0.0550			-1.6766	-2.0250	-0.3483			8	0.615	0.293	=		0.0010	0.0200
MWMTAC001-01	MG/L	BARIUM	0.1600	0.1600	0.1510	-0.0090			-1.8326	-1.8905	-0.0579			7	0.538	0.097	=		0.0010	0.0200
WJETA530-01	MG/L	BARIUM	0.1510	0.1510	0.1600	0.0090	0.0303	0.0003	-1.8905	-1.8326	0.0579	0.0303	0.0018	6	0.462	-0.097	=		0.0010	0.0200
WJETA535-01	MG/L	BARIUM	0.1320	0.1320	0.1870	0.0550	0.0922	0.0051	-2.0250	-1.6766	0.3483	0.0922	0.0321	5	0.385	-0.293	=		0.0010	0.0200
LF044B-01	MG/L	BARIUM	0.1200	0.1200	0.1970	0.0770	0.1586	0.0122	-2.1203	-1.6246	0.4957	0.1586	0.0786	4	0.308	-0.502	=		0.0010	0.0200
LF033D-01	MG/L	BARIUM	0.0979	0.0979	0.2910	0.1931	0.2347	0.0453	-2.3238	-1.2344	1.0894	0.2347	0.2557	3	0.231	-0.736	=		0.0010	0.0200
HM127-01	MG/L	BARIUM	0.0657	0.0657	0.3670	0.3013	0.3325	0.1002	-2.7227	-1.0024	1.7203	0.3325	0.5720	2	0.154	-1.020	=		0.0010	0.0200
HM120-01	MG/L	BARIUM	0.0358	0.0358	0.5130	0.4772	0.5475	0.2613	-3.3298	-0.6675	2.6623	0.5475	1.4576	1	0.077	-1.426	=		0.0010	0.0200
							b =	**0.4243**				**b =**	**2.3978**							
		0	12																	
		% Non-detect	0.0%			W	0.882				W	0.982								
		Range (Raw)	0.0358	0.5130		W (crit)	0.859				W (crit)	0.859								
							Accept					Accept								
		Mean		0.19312					-1.871											
		Std Dev		0.13625					0.729		0.982		0.882							
		UTL		0.566	0.0358	0.5130	0.19312	0.13625	1.133											
		Outlier Test (raw)		2.3478	Outlier!															
		Outlier Test (log)		1.6497	None															

4101153

BERYLLIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	BERYLLIUM	0.0019	0.0019	TR	F	0.0003	0.0030
LF04-4A	LF044A-01	MG/L	BERYLLIUM	0.0011	0.0011	TR	F	0.0003	0.0030
WJETA531	WJETA531	MG/L	BERYLLIUM	0.0009	0.0009	TR	F	0.0003	0.0030
LF04-4B	LF044B-01	MG/L	BERYLLIUM	0.0004	0.0004	TR	F	0.0003	0.0030
USGS02T	USGS02T	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
HM-120	HM120-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
HM-127	HM127-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
LF03-3D	LF033D-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
MWMTAC-001	MWMTAC001-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA530	WJETA530-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA534	WJETA534-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
WJETA535	WJETA535-01	MG/L	BERYLLIUM	0.0000	0.0002	ND	U	0.0003	0.0030
			8	12					
			% Non-detect	66.7%					
			Range (Raw)	0.0002	0.0019				
			Mean		0.00046				
			Std Dev		0.00056				

4101154

CALCIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
WJETA531	MG/L	CALCIUM	881.0000	881.0000	102.0000	-779.0000			6.7811	4.6250	-2.1561			12	0.923	1.426	=		0.0222	0.1000
WJETA534-01	MG/L	CALCIUM	876.0000	876.0000	150.0000	-726.0000			6.7754	5.0106	-1.7647			11	0.846	1.020	=		0.0222	0.1000
LF033D-01	MG/L	CALCIUM	864.0000	864.0000	166.0000	-698.0000			6.7616	5.1120	-1.6496			10	0.769	0.736	=		0.0222	0.1000
MWMTAC001-01	MG/L	CALCIUM	447.0000	447.0000	187.0000	-260.0000			6.1026	5.2311	-0.8714			9	0.692	0.502	=		0.0222	0.1000
USGS01T	MG/L	CALCIUM	398.0000	398.0000	195.0000	-203.0000			5.9865	5.2730	-0.7135			8	0.615	0.293	=		0.0222	0.1000
WJETA530-01	MG/L	CALCIUM	374.0000	374.0000	239.0000	-135.0000			5.9243	5.4765	-0.4478			7	0.538	0.097	=		0.0222	0.1000
WJETA535-01	MG/L	CALCIUM	239.0000	239.0000	374.0000	135.0000	0.0303	4.0905	5.4765	5.9243	0.4478	0.0303	0.0136	6	0.462	-0.097	=		0.0222	0.1000
LF044B-01	MG/L	CALCIUM	195.0000	195.0000	398.0000	203.0000	0.0922	18.7166	5.2730	5.9865	0.7135	0.0922	0.0658	5	0.385	-0.293	=		0.0222	0.1000
LF044A-01	MG/L	CALCIUM	187.0000	187.0000	447.0000	260.0000	0.1586	41.2360	5.2311	6.1026	0.8714	0.1586	0.1382	4	0.308	-0.502	=		0.0222	0.1000
HM120-01	MG/L	CALCIUM	166.0000	166.0000	864.0000	698.0000	0.2347	163.8206	5.1120	6.7616	1.6496	0.2347	0.3872	3	0.231	-0.736	=		0.0222	0.1000
USGS02T	MG/L	CALCIUM	150.0000	150.0000	876.0000	726.0000	0.3325	241.3950	5.0106	6.7754	1.7647	0.3325	0.5868	2	0.154	-1.020	=		0.0222	0.1000
HM127-01	MG/L	CALCIUM	102.0000	102.0000	881.0000	779.0000	0.5475	426.5025	4.6250	6.7811	2.1561	0.5475	1.1805	1	0.077	-1.426	=		0.0222	0.1000
							b =	**895.76**				b =	**2.3719**							
		0	12																	
		% Non-detect	0.0%			W	0.806				W	0.916								
		Range (Raw)	102.0000	881.0000		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		406.58333					5.755											
		Std Dev		300.75313					0.747		0.916		0.806							
		UTL		1229.444	102.0000	881.0000	406.58333	300.75313	2437.913											
		Outlier Test (raw)		1.5774	None															
		Outlier Test (log)		1.3735	None															

4101155

CADMIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS02T	USGS02T	MG/L	CADMIUM	0.0016	0.0016	=		0.0005	0.0010
USGS01T	USGS01T	MG/L	CADMIUM	0.0012	0.0012	=		0.0005	0.0010
WJETA531	WJETA531	MG/L	CADMIUM	0.0005	0.0005	TR	F	0.0005	0.0010
WJETA534	WJETA534-01	MG/L	CADMIUM	0.0005	0.0005	TR	F	0.0005	0.0010
HM-120	HM120-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
HM-127	HM127-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
LF03-3D	LF033D-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
LF04-4A	LF044A-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
LF04-4B	LF044B-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
MWMTAC-001	MWMTAC001-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
WJETA530	WJETA530-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
WJETA535	WJETA535-01	MG/L	CADMIUM	0.0000	0.0003	ND	U	0.0005	0.0010
			8	12					
			% Non-detect	66.7%					
			Range (Raw)	0.0003	0.0016				
			Mean		0.00048				
			Std Dev		0.00045				

4101156

CHROMIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-127	HM127-01	MG/L	CHROMIUM, TOTAL	0.0136	0.0136	TR	F	0.0053	0.0700
LF03-3D	LF033D-01	MG/L	CHROMIUM, TOTAL	0.0094	0.0094	TR	F	0.0053	0.0700
LF04-4B	LF044B-01	MG/L	CHROMIUM, TOTAL	0.0069	0.0069	TR	F	0.0053	0.0700
USGS02T	USGS02T	MG/L	CHROMIUM, TOTAL	0.0059	0.0059	TR	F	0.0053	0.0700
WJETA535	WJETA535-01	MG/L	CHROMIUM, TOTAL	0.0057	0.0057	TR	F	0.0053	0.0700
USGS01T	USGS01T	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
HM-120	HM120-01	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
LF04-4A	LF044A-01	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
MWMTAC-001	MWMTAC001-01	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA530	WJETA530-01	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA531	WJETA531	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
WJETA534	WJETA534-01	MG/L	CHROMIUM, TOTAL	0.0000	0.0027	ND	U	0.0053	0.0700
			7	12					
			% Non-detect	58.3%					
			Range (Raw)	0.0027	0.0136				
			Mean		0.00500				
			Std Dev		0.00353				

4101157

COBALT

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	COBALT	0.0100	0.0100	TR	F	0.0089	0.0700
USGS02T	USGS02T	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
HM-120	HM120-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
HM-127	HM127-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
LF03-3D	LF033D-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
LF04-4A	LF044A-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
LF04-4B	LF044B-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
MWMTAC-001	MWMTAC001-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA530	WJETA530-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA531	WJETA531	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA534	WJETA534-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
WJETA535	WJETA535-01	MG/L	COBALT	0.0000	0.0045	ND	U	0.0089	0.0700
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0045	0.0100				
			Mean		0.00491				
			Std Dev		0.00160				

4101158

COPPER

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
LF04-4B	LF044B-01	MG/L	COPPER	0.0101	0.0101	TR	F	0.0008	0.0600
LF04-4A	LF044A-01	MG/L	COPPER	0.0099	0.0099	TR	F	0.0008	0.0600
USGS01T	USGS01T	MG/L	COPPER	0.0069	0.0069	TR	F	0.0008	0.0600
USGS02T	USGS02T	MG/L	COPPER	0.0015	0.0015	TR	F	0.0008	0.0600
HM-120	HM120-01	MG/L	COPPER	0.0009	0.0009	TR	F	0.0008	0.0600
WJETA531	WJETA531	MG/L	COPPER	0.0009	0.0009	TR	F	0.0008	0.0600
HM-127	HM127-01	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
LF03-3D	LF033D-01	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
MWMTAC-001	MWMTAC001-01	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA530	WJETA530-01	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA534	WJETA534-01	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
WJETA535	WJETA535-01	MG/L	COPPER	0.0000	0.0004	ND	U	0.0008	0.0600
			6	12					
			% Non-detect	50.0%					
			Range (Raw)	0.0004	0.0101				
			Mean		0.00272				
			Std Dev		0.00386				

4101159

IRON

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
LF044B-01	MG/L	IRON	2.6400	2.6400	0.0768	-2.5632			0.9708	-2.5666	-3.5373			12	0.923	1.426	=		0.0035	0.0700
USGS01T	MG/L	IRON	1.3900	1.3900	0.2080	-1.1820			0.3293	-1.5702	-1.8995			11	0.846	1.020	=		0.0035	0.0700
WJETA534-01	MG/L	IRON	1.1600	1.1600	0.2620	-0.8980			0.1484	-1.3394	-1.4878			10	0.769	0.736	=		0.0035	0.0700
WJETA531	MG/L	IRON	0.9220	0.9220	0.3690	-0.5530			-0.0812	-0.9970	-0.9157			9	0.692	0.502	=		0.0035	0.0700
LF044A-01	MG/L	IRON	0.7110	0.7110	0.4930	-0.2180			-0.3411	-0.7072	-0.3662			8	0.615	0.293	=		0.0035	0.0700
WJETA535-01	MG/L	IRON	0.6680	0.6680	0.5060	-0.1620			-0.4035	-0.6812	-0.2778			7	0.538	0.097	=		0.0035	0.0700
LF033D-01	MG/L	IRON	0.5060	0.5060	0.6680	0.1620	0.0303	0.0049	-0.6812	-0.4035	0.2778	0.0303	0.0084	6	0.462	-0.097	=		0.0035	0.0700
MWMTAC001-01	MG/L	IRON	0.4930	0.4930	0.7110	0.2180	0.0922	0.0201	-0.7072	-0.3411	0.3662	0.0922	0.0338	5	0.385	-0.293	=		0.0035	0.0700
USGS02T	MG/L	IRON	0.3690	0.3690	0.9220	0.5530	0.1586	0.0877	-0.9970	-0.0812	0.9157	0.1586	0.1452	4	0.308	-0.502	=		0.0035	0.0700
HM127-01	MG/L	IRON	0.2620	0.2620	1.1600	0.8980	0.2347	0.2108	-1.3394	0.1484	1.4878	0.2347	0.3492	3	0.231	-0.736	=		0.0035	0.0700
WJETA530-01	MG/L	IRON	0.2080	0.2080	1.3900	1.1820	0.3325	0.3930	-1.5702	0.3293	1.8995	0.3325	0.6316	2	0.154	-1.020	=		0.0035	0.0700
HM120-01	MG/L	IRON	0.0768	0.0768	2.6400	2.5632	0.5475	1.4034	-2.5666	0.9708	3.5373	0.5475	1.9367	1	0.077	-1.426	=		0.0035	0.0700
							b =	**2.1198**				**b =**	**3.1049**							
		0	12																	
		% Non-detect	0.0%			W	0.828				W	0.984								
		Range (Raw)	0.0768	2.6400		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		0.78382					-0.603											
		Std Dev		0.70258					0.944		0.984		0.828							
		UTL		2.706	0.0768	2.6400	0.78382	0.70258	7.234											
		Outlier Test (raw)		2.6420	Outlier!															
		Outlier Test (log)		1.6679	None															

4101160

LEAD

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
USGS02T	USGS02T	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
HM-120	HM120-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
HM-127	HM127-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
LF03-3D	LF033D-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
LF04-4A	LF044A-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
LF04-4B	LF044B-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
MWMTAC-001	MWMTAC001-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA530	WJETA530-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA531	WJETA531	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA534	WJETA534-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
WJETA535	WJETA535-01	MG/L	LEAD	0.0000	0.0008	ND	U	0.0016	0.0050
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0008	0.0008				
			Mean		0.00080				
			Std Dev		0.00000				

410161

MAGNESIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
HM120-01	MG/L	MAGNESIUM	35.6000	35.6000	3.7900	-31.8100			3.5723	1.3324	-2.2400			12	0.923	1.426	=		0.0342	0.3000
USGS01T	MG/L	MAGNESIUM	31.4000	31.4000	4.2000	-27.2000			3.4468	1.4351	-2.0117			11	0.846	1.020	=		0.0342	0.3000
LF033D-01	MG/L	MAGNESIUM	14.6000	14.6000	4.3100	-10.2900			2.6810	1.4609	-1.2201			10	0.769	0.736	=		0.0342	0.3000
WJETA534-01	MG/L	MAGNESIUM	12.0000	12.0000	5.6500	-6.3500			2.4849	1.7317	-0.7533			9	0.692	0.502	=		0.0342	0.3000
WJETA531	MG/L	MAGNESIUM	10.6000	10.6000	6.2500	-4.3500			2.3609	1.8326	-0.5283			8	0.615	0.293	=		0.0342	0.3000
MWMTAC001-01	MG/L	MAGNESIUM	7.3200	7.3200	7.2500	-0.0700			1.9906	1.9810	-0.0096			7	0.538	0.097	=		0.0342	0.3000
WJETA535-01	MG/L	MAGNESIUM	7.2500	7.2500	7.3200	0.0700	0.0303	0.0021	1.9810	1.9906	0.0096	0.0303	0.0003	6	0.462	-0.097	=		0.0342	0.3000
WJETA530-01	MG/L	MAGNESIUM	6.2500	6.2500	10.6000	4.3500	0.0922	0.4011	1.8326	2.3609	0.5283	0.0922	0.0487	5	0.385	-0.293	=		0.0342	0.3000
LF044A-01	MG/L	MAGNESIUM	5.6500	5.6500	12.0000	6.3500	0.1586	1.0071	1.7317	2.4849	0.7533	0.1586	0.1195	4	0.308	-0.502	=		0.0342	0.3000
LF044B-01	MG/L	MAGNESIUM	4.3100	4.3100	14.6000	10.2900	0.2347	2.4151	1.4609	2.6810	1.2201	0.2347	0.2864	3	0.231	-0.736	=		0.0342	0.3000
HM127-01	MG/L	MAGNESIUM	4.2000	4.2000	31.4000	27.2000	0.3325	9.0440	1.4351	3.4468	2.0117	0.3325	0.6689	2	0.154	-1.020	=		0.0342	0.3000
USGS02T	MG/L	MAGNESIUM	3.7900	3.7900	35.6000	31.8100	0.5475	17.4160	1.3324	3.5723	2.2400	0.5475	1.2264	1	0.077	-1.426	=		0.0342	0.3000
							b =	**30.2853**				**b =**	**2.3501**							
		0	12																	
		% Non-detect	0.0%			W	0.735				W	0.905								
		Range (Raw)	3.7900	35.6000		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		11.91417					2.193											
		Std Dev		10.64801					0.745		0.905		0.735							
		UTL		41.047	3.7900	35.6000	11.91417	10.64801	68.781											
		Outlier Test (raw)		2.2244	None															
		Outlier Test (log)		1.8520	None															

410116 2

MANGANESE

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS02T	MG/L	MANGANESE	2.1700	2.1700	0.0393	-2.1307			0.7747	-3.2365	-4.0113			12	0.923	1.426	=		0.0013	0.0200
USGS01T	MG/L	MANGANESE	1.7000	1.7000	0.0882	-1.6118			0.5306	-2.4281	-2.9588			11	0.846	1.020	=		0.0013	0.0200
LF044A-01	MG/L	MANGANESE	1.0800	1.0800	0.2200	-0.8600			0.0770	-1.5141	-1.5911			10	0.769	0.736	=		0.0013	0.0200
LF033D-01	MG/L	MANGANESE	0.9020	0.9020	0.2740	-0.6280			-0.1031	-1.2946	-1.1915			9	0.692	0.502	=		0.0013	0.0200
HM120-01	MG/L	MANGANESE	0.6820	0.6820	0.3920	-0.2900			-0.3827	-0.9365	-0.5538			8	0.615	0.293	=		0.0013	0.0200
WJETA534-01	MG/L	MANGANESE	0.4620	0.4620	0.4560	-0.0060			-0.7722	-0.7853	-0.0131			7	0.538	0.097	=		0.0013	0.0200
LF044B-01	MG/L	MANGANESE	0.4560	0.4560	0.4620	0.0060	0.0303	0.0002	-0.7853	-0.7722	0.0131	0.0303	0.0004	6	0.462	-0.097	=		0.0013	0.0200
WJETA531	MG/L	MANGANESE	0.3920	0.3920	0.6820	0.2900	0.0922	0.0267	-0.9365	-0.3827	0.5538	0.0922	0.0511	5	0.385	-0.293	=		0.0013	0.0200
MWMTAC001-01	MG/L	MANGANESE	0.2740	0.2740	0.9020	0.6280	0.1586	0.0996	-1.2946	-0.1031	1.1915	0.1586	0.1890	4	0.308	-0.502	=		0.0013	0.0200
WJETA530-01	MG/L	MANGANESE	0.2200	0.2200	1.0800	0.8600	0.2347	0.2018	-1.5141	0.0770	1.5911	0.2347	0.3734	3	0.231	-0.736	=		0.0013	0.0200
WJETA535-01	MG/L	MANGANESE	0.0882	0.0882	1.7000	1.6118	0.3325	0.5359	-2.4281	0.5306	2.9588	0.3325	0.9838	2	0.154	-1.020	=		0.0013	0.0200
HM127-01	MG/L	MANGANESE	0.0393	0.0393	2.1700	2.1307	0.5475	1.1666	-3.2365	0.7747	4.0113	0.5475	2.1962	1	0.077	-1.426	=		0.0013	0.0200
							b =	**2.0308**				**b =**	**3.7938**							
		0	12																	
		% Non-detect	0.0%			W	0.863				W	0.958								
		Range (Raw)	0.0393	2.1700		W (crit)	0.859				W (crit)	0.859								
							Accept					Accept								
		Mean		0.70546					-0.839											
		Std Dev		0.65919					1.169		0.958		0.863							
		UTL		2.509	0.0393	2.1700	0.70546	0.65919	10.571											
		Outlier Test (raw)		2.2217	None															
		Outlier Test (log)		1.3811	None															

4101163

MERCURY

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
USGS02T	USGS02T	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
HM-120	HM120-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
HM-127	HM127-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
LF03-3D	LF033D-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
LF04-4A	LF044A-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
LF04-4B	LF044B-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
MWMTAC-001	MWMTAC001-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA530	WJETA530-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA531	WJETA531	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA534	WJETA534-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
WJETA535	WJETA535-01	MG/L	MERCURY	0.0000	0.0001	ND	U	0.0001	0.0010
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0001	0.0001				
			Mean		0.00005				
			Std Dev		0.00000				

4101164

MOLYBDENUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
USGS02T	USGS02T	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
HM-120	HM120-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
HM-127	HM127-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
LF03-3D	LF033D-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
LF04-4A	LF044A-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
LF04-4B	LF044B-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
MWMTAC-001	MWMTAC001-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA530	WJETA530-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA531	WJETA531	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA534	WJETA534-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
WJETA535	WJETA535-01	MG/L	MOLYBDENUM	0.0000	0.0072	ND	U	0.0144	0.0800
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0072	0.0072				
			Mean		0.00720				
			Std Dev		0.00000				

4101165

NICKEL

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
LF044A-01	MG/L	NICKEL	0.0203	0.0203	0.0022	-0.0181			-3.8971	-6.1193	-2.2222			12	0.923	1.426	=		0.0020	0.0100
USGS02T	MG/L	NICKEL	0.0140	0.0140	0.0023	-0.0117			-4.2687	-6.0748	-1.8061			11	0.846	1.020	=		0.0020	0.0100
HM120-01	MG/L	NICKEL	0.0099	0.0099	0.0030	-0.0069			-4.6152	-5.8091	-1.1939			10	0.769	0.736	TR	F	0.0020	0.0100
USGS01T	MG/L	NICKEL	0.0087	0.0087	0.0041	-0.0046			-4.7444	-5.4968	-0.7523			9	0.692	0.502	TR	F	0.0020	0.0100
MWMTAC001-01	MG/L	NICKEL	0.0045	0.0045	0.0042	-0.0003			-5.4037	-5.4727	-0.0690			8	0.615	0.293	TR	F	0.0020	0.0100
WJETA534-01	MG/L	NICKEL	0.0045	0.0045	0.0044	-0.0001			-5.4037	-5.4262	-0.0225			7	0.538	0.097	TR	F	0.0020	0.0100
LF044B-01	MG/L	NICKEL	0.0044	0.0044	0.0045	0.0001	0.0303	0.0000	-5.4262	-5.4037	0.0225	0.0303	0.0007	6	0.462	-0.097	TR	F	0.0020	0.0100
WJETA535-01	MG/L	NICKEL	0.0042	0.0042	0.0045	0.0003	0.0922	0.0000	-5.4727	-5.4037	0.0690	0.0922	0.0064	5	0.385	-0.293	TR	F	0.0020	0.0100
LF033D-01	MG/L	NICKEL	0.0041	0.0041	0.0087	0.0046	0.1586	0.0007	-5.4968	-4.7444	0.7523	0.1586	0.1193	4	0.308	-0.502	TR	F	0.0020	0.0100
WJETA531	MG/L	NICKEL	0.0030	0.0030	0.0099	0.0069	0.2347	0.0016	-5.8091	-4.6152	1.1939	0.2347	0.2802	3	0.231	-0.736	TR	F	0.0020	0.0100
HM127-01	MG/L	NICKEL	0.0023	0.0023	0.0140	0.0117	0.3325	0.0039	-6.0748	-4.2687	1.8061	0.3325	0.6005	2	0.154	-1.020	TR	F	0.0020	0.0100
WJETA530-01	MG/L	NICKEL	0.0022	0.0022	0.0203	0.0181	0.5475	0.0099	-6.1193	-3.8971	2.2222	0.5475	1.2166	1	0.077	-1.426	TR	F	0.0020	0.0100
							b =	**0.0162**				**b =**	**2.2238**							
		0	12																	
		% Non-detect	0.0%			W	0.785				W	0.919								
		Range (Raw)	0.0022	0.0203		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		0.00684					-5.228											
		Std Dev		0.00551					0.700		0.919		0.785							
		UTL		0.022	0.0022	0.0203	0.00684	0.00551	0.036											
		Outlier Test (raw)		2.4441	Outlier!															
		Outlier Test (log)		1.9019	None															

4101166

POTASSIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	POTASSIUM	3.9000	3.9000	TR	F	0.4660	5.0000
LF03-3D	LF033D-01	MG/L	POTASSIUM	1.4000	1.4000	TR	F	0.4660	5.0000
LF04-4B	LF044B-01	MG/L	POTASSIUM	1.0000	1.0000	TR	F	0.4660	5.0000
WJETA535	WJETA535-01	MG/L	POTASSIUM	0.9930	0.9930	TR	F	0.4660	5.0000
WJETA530	WJETA530-01	MG/L	POTASSIUM	0.7970	0.7970	TR	F	0.4660	5.0000
WJETA534	WJETA534-01	MG/L	POTASSIUM	0.6930	0.6930	TR	F	0.4660	5.0000
USGS02T	USGS02T	MG/L	POTASSIUM	0.0000	0.2330	ND	U	0.4660	5.0000
HM-120	HM120-01	MG/L	POTASSIUM	0.0000	0.2330	ND	U	0.4660	5.0000
HM-127	HM127-01	MG/L	POTASSIUM	0.0000	0.2330	ND	U	0.4660	5.0000
LF04-4A	LF044A-01	MG/L	POTASSIUM	0.0000	0.2330	ND	U	0.4660	5.0000
MWMTAC-001	MWMTAC001-01	MG/L	POTASSIUM	0.0000	0.2330	ND	U	0.4660	5.0000
WJETA531	WJETA531	MG/L	POTASSIUM	0.0000	0.2330	ND	U	0.4660	5.0000
			6	12					
			% Non-detect	50.0%					
			Range (Raw)	0.2330	3.9000				
			Mean		0.84842				
			Std Dev		1.04270				

4101167

SELENIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
WJETA531	MG/L	SELENIUM	0.0042	0.0042	0.0006	-0.0037			-5.4727	-7.5056	-2.0329			12	0.923	1.426	TR	F	0.0011	0.0050
LF044A-01	MG/L	SELENIUM	0.0024	0.0024	0.0006	-0.0019			-6.0323	-7.5056	-1.4733			11	0.846	1.020	TR	F	0.0011	0.0050
MWMTAC001-01	MG/L	SELENIUM	0.0020	0.0020	0.0012	-0.0008			-6.2146	-6.7254	-0.5108			10	0.769	0.736	TR	F	0.0011	0.0050
LF044B-01	MG/L	SELENIUM	0.0019	0.0019	0.0015	-0.0004			-6.2659	-6.5023	-0.2364			9	0.692	0.502	TR	F	0.0011	0.0050
LF033D-01	MG/L	SELENIUM	0.0018	0.0018	0.0015	-0.0003			-6.3200	-6.5023	-0.1823			8	0.615	0.293	TR	F	0.0011	0.0050
USGS01T	MG/L	SELENIUM	0.0017	0.0017	0.0017	0.0000			-6.3771	-6.3771	0.0000			7	0.538	0.097	TR	F	0.0011	0.0050
HM120-01	MG/L	SELENIUM	0.0017	0.0017	0.0017	0.0000	0.0303	0.0000	-6.3771	-6.3771	0.0000	0.0303	0.0000	6	0.462	-0.097	TR	F	0.0011	0.0050
WJETA530-01	MG/L	SELENIUM	0.0015	0.0015	0.0018	0.0003	0.0922	0.0000	-6.5023	-6.3200	0.1823	0.0922	0.0168	5	0.385	-0.293	TR	F	0.0011	0.0050
WJETA534-01	MG/L	SELENIUM	0.0015	0.0015	0.0019	0.0004	0.1586	0.0001	-6.5023	-6.2659	0.2364	0.1586	0.0375	4	0.308	-0.502	TR	F	0.0011	0.0050
USGS02T	MG/L	SELENIUM	0.0012	0.0012	0.0020	0.0008	0.2347	0.0002	-6.7254	-6.2146	0.5108	0.2347	0.1199	3	0.231	-0.736	TR	F	0.0011	0.0050
HM127-01	MG/L	SELENIUM	0.0000	0.0006	0.0024	0.0019	0.3325	0.0006	-7.5056	-6.0323	1.4733	0.3325	0.4899	2	0.154	-1.020	ND	U	0.0011	0.0050
WJETA535-01	MG/L	SELENIUM	0.0000	0.0006	0.0042	0.0037	0.5475	0.0020	-7.5056	-5.4727	2.0329	0.5475	1.1130	1	0.077	-1.426	ND	U	0.0011	0.0050
							b =	**0.0029**				**b =**	**1.7771**							
		2	12																	
		% Non-detect	16.7%			W	0.851				W	0.891								
		Range (Raw)	0.0006	0.0042		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		0.00175					-6.483											
		Std Dev		0.00095					0.568		0.891		0.851							
		UTL		0.004	0.0006	0.0042	0.00175	0.00095	0.007											
		Outlier Test (raw)		2.5924	Outlier!															
		Outlier Test (log)		1.7809	None															

SILVER

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
HM-127	HM127-01	MG/L	SILVER	0.0003	0.0003	TR	F	0.0002	0.0010
USGS01T	USGS01T	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
USGS02T	USGS02T	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
HM-120	HM120-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
LF03-3D	LF033D-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
LF04-4A	LF044A-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
LF04-4B	LF044B-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
MWMTAC-001	MWMTAC001-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA530	WJETA530-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA531	WJETA531	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA534	WJETA534-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
WJETA535	WJETA535-01	MG/L	SILVER	0.0000	0.0001	ND	U	0.0002	0.0010
			11	12					
			% Non-detect	91.7%					
			Range (Raw)	0.0001	0.0003				
			Mean		0.00012				
			Std Dev		0.00006				

4101169

SODIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
HM120-01	MG/L	SODIUM	91.5000	91.5000	1.9600	-89.5400			4.5163	0.6729	-3.8434			12	0.923	1.426	=		0.0500	0.3000
LF044A-01	MG/L	SODIUM	25.5000	25.5000	5.4800	-20.0200			3.2387	1.7011	-1.5376			11	0.846	1.020	=		0.0500	0.3000
WJETA535-01	MG/L	SODIUM	24.1000	24.1000	7.7800	-16.3200			3.1822	2.0516	-1.1307			10	0.769	0.736	=		0.0500	0.3000
USGS01T	MG/L	SODIUM	23.9000	23.9000	10.2000	-13.7000			3.1739	2.3224	-0.8515			9	0.692	0.502	=		0.0500	0.3000
WJETA534-01	MG/L	SODIUM	16.6000	16.6000	10.5000	-6.1000			2.8094	2.3514	-0.4580			8	0.615	0.293	=		0.0500	0.3000
LF033D-01	MG/L	SODIUM	14.2000	14.2000	11.1000	-3.1000			2.6532	2.4069	-0.2463			7	0.538	0.097	=		0.0500	0.3000
MWMTAC001-01	MG/L	SODIUM	11.1000	11.1000	14.2000	3.1000	0.0303	0.0939	2.4069	2.6532	0.2463	0.0303	0.0075	6	0.462	-0.097	=		0.0500	0.3000
WJETA530-01	MG/L	SODIUM	10.5000	10.5000	16.6000	6.1000	0.0922	0.5624	2.3514	2.8094	0.4580	0.0922	0.0422	5	0.385	-0.293	=		0.0500	0.3000
HM127-01	MG/L	SODIUM	10.2000	10.2000	23.9000	13.7000	0.1586	2.1728	2.3224	3.1739	0.8515	0.1586	0.1350	4	0.308	-0.502	=		0.0500	0.3000
WJETA531	MG/L	SODIUM	7.7800	7.7800	24.1000	16.3200	0.2347	3.8303	2.0516	3.1822	1.1307	0.2347	0.2654	3	0.231	-0.736	=		0.0500	0.3000
LF044B-01	MG/L	SODIUM	5.4800	5.4800	25.5000	20.0200	0.3325	6.6567	1.7011	3.2387	1.5376	0.3325	0.5112	2	0.154	-1.020	=		0.0500	0.3000
USGS02T	MG/L	SODIUM	1.9600	1.9600	91.5000	89.5400	0.5475	49.0232	0.6729	4.5163	3.8434	0.5475	2.1043	1	0.077	-1.426	=		0.0500	0.3000
							b =	**62.3393**				b =	**3.0656**							
		0	12																	
		% Non-detect	0.0%			W	0.630				W	0.960								
		Range (Raw)	1.9600	91.5000		W (crit)	0.859				W (crit)	0.859								
							Reject					Accept								
		Mean		20.23500					2.590											
		Std Dev		23.68382					0.944		0.960		0.630							
		UTL		85.034	1.9600	91.5000	20.23500	23.68382	176.175											
		Outlier Test (raw)		3.0090	Outlier!															
		Outlier Test (log)		2.0416	None															

THALLIUM

LOCATION	SAMPLE_ID	UNITS	NAME	VALUE	CALC	PARVQ	LAB_QUAL	DETECT	PQUANT
USGS01T	USGS01T	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
USGS02T	USGS02T	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
HM-120	HM120-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
HM-127	HM127-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
LF03-3D	LF033D-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
LF04-4A	LF044A-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
LF04-4B	LF044B-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
MWMTAC-001	MWMTAC001-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA530	WJETA530-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA531	WJETA531	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA534	WJETA534-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
WJETA535	WJETA535-01	MG/L	THALLIUM	0.0000	0.0316	ND	U	0.0632	0.4000
			12	12					
			% Non-detect	100.0%					
			Range (Raw)	0.0316	0.0316				
			Mean		0.03160				
			Std Dev		0.00000				

4101171

VANADIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS01T	MG/L	VANADIUM	0.0247	0.0247	0.0015	-0.0233			-3.7010	-6.5362	-2.8352			12	0.923	1.426	TR	F	0.0029	0.0800
LF044A-01	MG/L	VANADIUM	0.0169	0.0169	0.0039	-0.0130			-4.0804	-5.5468	-1.4663			11	0.846	1.020	TR	F	0.0029	0.0800
LF044B-01	MG/L	VANADIUM	0.0114	0.0114	0.0050	-0.0064			-4.4741	-5.2983	-0.8242			10	0.769	0.736	TR	F	0.0029	0.0800
WJETA534-01	MG/L	VANADIUM	0.0112	0.0112	0.0064	-0.0048			-4.4918	-5.0515	-0.5596			9	0.692	0.502	TR	F	0.0029	0.0800
MWMTAC001-01	MG/L	VANADIUM	0.0111	0.0111	0.0084	-0.0027			-4.5008	-4.7795	-0.2787			8	0.615	0.293	TR	F	0.0029	0.0800
WJETA531	MG/L	VANADIUM	0.0093	0.0093	0.0093	0.0000	0.0000	0.0000	-4.6777	-4.6777	0.0000	0.0000	0.0000	7	0.538	0.097	TR	F	0.0029	0.0800
HM127-01	MG/L	VANADIUM	0.0084	0.0084	0.0111	0.0027	0.0695	0.0002	-4.7795	-4.5008	0.2787	0.0695	0.0194	6	0.462	-0.097	TR	F	0.0029	0.0800
WJETA530-01	MG/L	VANADIUM	0.0064	0.0064	0.0112	0.0048	0.1429	0.0007	-5.0515	-4.4918	0.5596	0.1429	0.0800	5	0.385	-0.293	TR	F	0.0029	0.0800
WJETA535-01	MG/L	VANADIUM	0.0050	0.0050	0.0114	0.0064	0.2260	0.0014	-5.2983	-4.4741	0.8242	0.2260	0.1863	4	0.308	-0.502	TR	F	0.0029	0.0800
HM120-01	MG/L	VANADIUM	0.0039	0.0039	0.0169	0.0130	0.3315	0.0043	-5.5468	-4.0804	1.4663	0.3315	0.4861	3	0.231	-0.736	TR	F	0.0029	0.0800
USGS02T	MG/L	VANADIUM	0.0000	0.0015	0.0247	0.0233	0.5601	0.0130	-6.5362	-3.7010	2.8352	0.5601	1.5880	2	0.154	-1.020	ND	U	0.0029	0.0800
							b =	**0.0197**				b =	**2.3597**							
		1	11																	
		% Non-detect	9.1%			W	0.920				W	0.943								
		Range (Raw)	0.0015	0.0247		W (crit)	0.850				W (crit)	0.850								
							Accept					Accept								
		Mean		0.00998					-4.831											
		Std Dev		0.00648					0.768		0.943		0.920							
		UTL		0.028	0.0015	0.0247	0.00998	0.00648	0.065											
		Outlier Test (raw)		2.2728	None															
		Outlier Test (log)		1.4703	None															

4101172

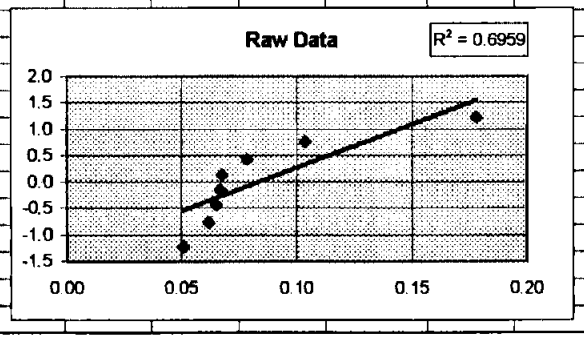
ZINC

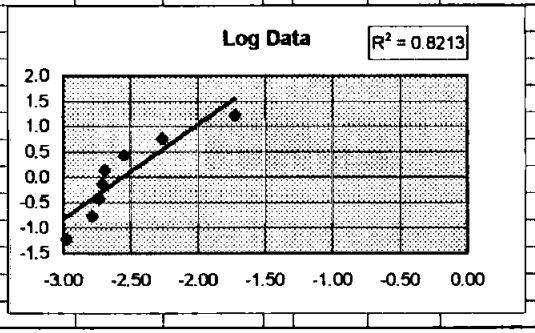
SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	LQ	DET	PQL
USGS01T	MG/L	ZINC	0.0307	0.0307	0.0020	-0.0288			-3.4835	-6.2399	-2.7564			12	0.923	1.426	=		0.0039	0.0200
LF044A-01	MG/L	ZINC	0.0196	0.0196	0.0056	-0.0140			-3.9322	-5.1850	-1.2528			11	0.846	1.020	TR	F	0.0039	0.0200
LF044B-01	MG/L	ZINC	0.0166	0.0166	0.0062	-0.0104			-4.0984	-5.0832	-0.9849			10	0.769	0.736	TR	F	0.0039	0.0200
MWMTAC001-01	MG/L	ZINC	0.0114	0.0114	0.0073	-0.0041			-4.4741	-4.9199	-0.4457			9	0.692	0.502	TR	F	0.0039	0.0200
HM127-01	MG/L	ZINC	0.0108	0.0108	0.0079	-0.0029			-4.5282	-4.8409	-0.3127			8	0.615	0.293	TR	F	0.0039	0.0200
LF033D-01	MG/L	ZINC	0.0089	0.0089	0.0089	0.0000	0.0000	0.0000	-4.7217	-4.7217	0.0000	0.0000	0.0000	7	0.538	0.097	TR	F	0.0039	0.0200
HM120-01	MG/L	ZINC	0.0079	0.0079	0.0108	0.0029	0.0695	0.0002	-4.8409	-4.5282	0.3127	0.0695	0.0217	6	0.462	-0.097	TR	F	0.0039	0.0200
USGS02T	MG/L	ZINC	0.0073	0.0073	0.0114	0.0041	0.1429	0.0006	-4.9199	-4.4741	0.4457	0.1429	0.0637	5	0.385	-0.293	TR	F	0.0039	0.0200
WJETA535-01	MG/L	ZINC	0.0062	0.0062	0.0166	0.0104	0.2260	0.0024	-5.0832	-4.0984	0.9849	0.2260	0.2226	4	0.308	-0.502	TR	F	0.0039	0.0200
WJETA530-01	MG/L	ZINC	0.0056	0.0056	0.0196	0.0140	0.3315	0.0046	-5.1850	-3.9322	1.2528	0.3315	0.4153	3	0.231	-0.736	TR	F	0.0039	0.0200
WJETA531	MG/L	ZINC	0.0000	0.0020	0.0307	0.0288	0.5601	0.0161	-6.2399	-3.4835	2.7564	0.5601	1.5439	2	0.154	-1.020	ND	U	0.0039	0.0200
							b =	**0.0239**				**b =**	**2.2672**							
		1	11																	
		% Non-detect	9.1%			W	0.874				W	0.964								
		Range (Raw)	0.0020	0.0307		W (crit)	0.850				W (crit)	0.850								
							Accept					Accept								
		Mean		0.01154					-4.682											
		Std Dev		0.00808					0.730		0.964		0.874							
		UTL		0.034	0.0020	0.0307	0.01154	0.00808	0.068											
		Outlier Test (raw)		2.3724	Outlier!															
		Outlier Test (log)		1.6422	None															

4101173

ALUMINUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB006-SW	MG/L	ALUMINUM	0.1780	0.1780	0.0509	-0.1271			-1.7260	-2.9779	-1.2519			8	0.889	1.221	-1.7260	TR	0.0122	F	
JEFB003-SW	MG/L	ALUMINUM	0.1040	0.1040	0.0620	-0.0420			-2.2634	-2.7806	-0.5173			7	0.778	0.765	-2.2634	TR	0.0122	F	
JEFB007-SW	MG/L	ALUMINUM	0.0786	0.0786	0.0653	-0.0133			-2.5434	-2.7288	-0.1854			6	0.667	0.431	-2.5434	TR	0.0122	F	
JEFB002-SW	MG/L	ALUMINUM	0.0677	0.0677	0.0669	-0.0008			-2.6927	-2.7046	-0.0119			5	0.556	0.140	-2.6927	TR	0.0122	F	
JEFB005-SW	MG/L	ALUMINUM	0.0669	0.0669	0.0677	0.0008	0.0561	0.000045	-2.7046	-2.6927	0.0119	0.0561	0.000667	4	0.444	-0.140	-2.7046	TR	0.0122	F	
JEFB004-SW	MG/L	ALUMINUM	0.0653	0.0653	0.0786	0.0133	0.1743	0.002318	-2.7288	-2.5434	0.1854	0.1743	0.032312	3	0.333	-0.431	-2.7288	TR	0.0122	F	
JEFB008-SW	MG/L	ALUMINUM	0.0620	0.0620	0.1040	0.0420	0.3164	0.013289	-2.7806	-2.2634	0.5173	0.3164	0.163660	2	0.222	-0.765	-2.7806	TR	0.0122	F	
JEFB001-SW	MG/L	ALUMINUM	0.0509	0.0509	0.1780	0.1271	0.6052	0.076921	-2.9779	-1.7260	1.2519	0.6052	0.757662	1	0.111	-1.221	-2.9779	TR	0.0122	F	
							b =	**0.09**				**b =**	**0.95**								
		0	8																		
		% Non-detect	0.0			W	0.729				W	0.848									
		Range Raw	0.0509	0.178		W (crit)	0.818				W (crit)	0.818									
							Reject					Accept									
		Mean		0.0842					-2.5522												
		Std Dev		0.041					0.3916		0.848		0.729								
		UTL		0.2148					0.2716												
		Outlier Test (raw)		2.2898	Outlier!	0.178	0.0842	0.041	0.1712												
		Outlier Test (log)		2.1095	Outlier!																





4101174

ANTIMONY

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW7041	MG/L	SB	ANTIMONY	0.0031	0.0031	-5.7764	TR	0.0020	F	
JEFB008	N1	JEFB008-SW	SW7041	MG/L	SB	ANTIMONY	0.0021	0.0021	-6.1658	TR	0.0020	F	
JEFB001	N1	JEFB001-SW	SW7041	MG/L	SB	ANTIMONY	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB003	N1	JEFB003-SW	SW7041	MG/L	SB	ANTIMONY	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB004	N1	JEFB004-SW	SW7041	MG/L	SB	ANTIMONY	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB005	N1	JEFB005-SW	SW7041	MG/L	SB	ANTIMONY	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB006	N1	JEFB006-SW	SW7041	MG/L	SB	ANTIMONY	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB007	N1	JEFB007-SW	SW7041	MG/L	SB	ANTIMONY	0.0000	0.0010	-6.9078	ND	0.0020	U	
						6	8						
						% Non-detect	75.0%						
						Range Raw	0.0010	0.0031					
						Range Log	-6.9078	-5.7764					
						Mean		0.00140					
						Std Dev		0.00079					

4101175

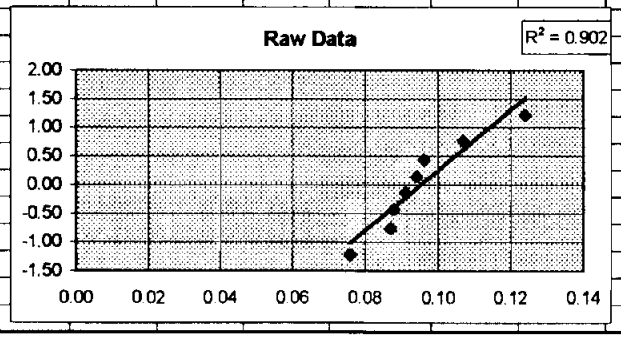
ARSENIC

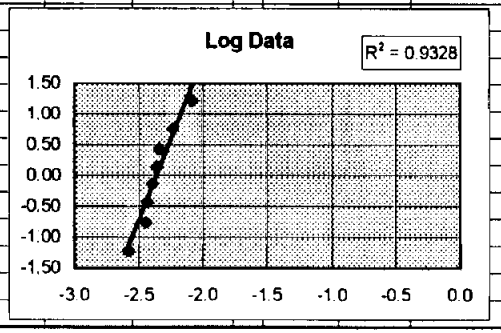
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB001	N1	JEFB001-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
JEFB008	N1	JEFB008-SW	SW6010	MG/L	AS	ARSENIC	0.0000	0.00245	-6.0117	ND	0.0049	U	
						8	8						
						% Non-detect	100.0%						
						Range Raw	0.0025	0.0025					
						Range Log	-6.0117	-6.0117					
						Mean		0.00245					
						Std Dev		0.00000					

4101176

BARIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB008-SW	MG/L	BARIUM	0.1240	0.1240	0.0759	-0.0481			-2.0875	-2.5783	-0.4909			8	0.889	1.221	-2.0875	=	0.0010		
JEFB006-SW	MG/L	BARIUM	0.1070	0.1070	0.0868	-0.0202			-2.2349	-2.4441	-0.2092			7	0.778	0.765	-2.2349	=	0.0010		
JEFB004-SW	MG/L	BARIUM	0.0962	0.0962	0.0877	-0.0085			-2.3413	-2.4338	-0.0925			6	0.667	0.431	-2.3413	=	0.0010		
JEFB003-SW	MG/L	BARIUM	0.0941	0.0941	0.0909	-0.0032			-2.3634	-2.3980	-0.0346			5	0.556	0.140	-2.3634	=	0.0010		
JEFB007-SW	MG/L	BARIUM	0.0909	0.0909	0.0941	0.0032	0.0561	0.000180	-2.3980	-2.3634	0.0346	0.0561	0.001941	4	0.444	-0.140	-2.3980	=	0.0010		
JEFB001-SW	MG/L	BARIUM	0.0877	0.0877	0.0962	0.0085	0.1743	0.001482	-2.4338	-2.3413	0.0925	0.1743	0.016124	3	0.333	-0.431	-2.4338	=	0.0010		
JEFB005-SW	MG/L	BARIUM	0.0868	0.0868	0.1070	0.0202	0.3164	0.006391	-2.4441	-2.2349	0.2092	0.3164	0.066198	2	0.222	-0.765	-2.4441	=	0.0010		
JEFB002-SW	MG/L	BARIUM	0.0759	0.0759	0.1240	0.0481	0.6052	0.029110	-2.5783	-2.0875	0.4909	0.6052	0.297071	1	0.111	-1.221	-2.5783	=	0.0010		
							b =	**0.04**				**b =**	**0.38**								
		0	8																		
		% Non-detect	0.0			W	0.928				W	0.957									
		Range Raw	0.0759	0.124		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		0.0953					-2.3602												
		Std Dev		0.0146					0.1473		0.957		0.928								
		UTL		0.1418					0.151												
		Outlier Test (raw)		1.9664	None	0.124	0.0953	0.0146	0.1269												
		Outlier Test (log)		1.8511	None																





4101177

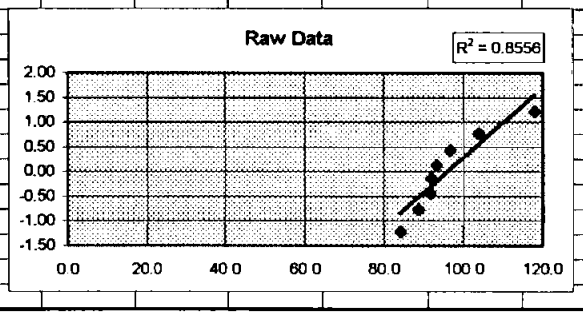
BERYLLIUM

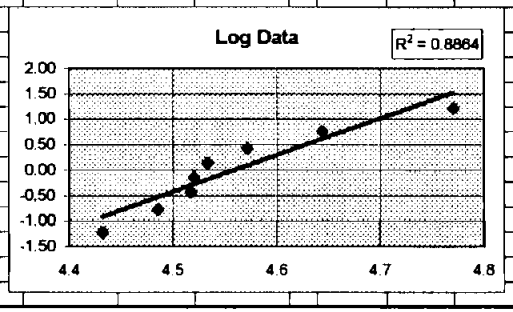
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB001	N1	JEFB001-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
JEFB008	N1	JEFB008-SW	SW6010	MG/L	BE	BERYLLIUM	0.0000	0.00015	-8.8049	ND	0.0003	U	
						8	8						
						% Non-detect	100.0%						
						Range Raw	0.0002	0.0002					
						Range Log	-8.8049	-8.8049					
						Mean		0.00015					
						Std Dev		0.00000					

4101178

CALCIUM

SAMPLE_ID	UNIT	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB006-SW	MG/L	CALCIUM	118.0000	118.0000	84.1000	-33.9000			4.7707	4.4320	-0.3387			8	0.889	1.221	4.7707	=	0.0222		
JEFB008-SW	MG/L	CALCIUM	104.0000	104.0000	88.7000	-15.3000			4.6444	4.4853	-0.1591			7	0.778	0.765	4.6444	=	0.0222		
JEFB007-SW	MG/L	CALCIUM	96.7000	96.7000	91.6000	-5.1000			4.5716	4.5174	-0.0542			6	0.667	0.431	4.5716	=	0.0222		
JEFB004-SW	MG/L	CALCIUM	93.1000	93.1000	91.9000	-1.2000			4.5337	4.5207	-0.0130			5	0.556	0.140	4.5337	=	0.0222		
JEFB005-SW	MG/L	CALCIUM	91.9000	91.9000	93.1000	1.2000	0.0561	0.067320	4.5207	4.5337	0.0130	0.0561	0.000728	4	0.444	-0.140	4.5207	=	0.0222		
JEFB003-SW	MG/L	CALCIUM	91.6000	91.6000	96.7000	5.1000	0.1743	0.888930	4.5174	4.5716	0.0542	0.1743	0.009444	3	0.333	-0.431	4.5174	=	0.0222		
JEFB001-SW	MG/L	CALCIUM	88.7000	88.7000	104.0000	15.3000	0.3164	4.840920	4.4853	4.6444	0.1591	0.3164	0.050349	2	0.222	-0.765	4.4853	=	0.0222		
JEFB002-SW	MG/L	CALCIUM	84.1000	84.1000	118.0000	33.9000	0.6052	20.516280	4.4320	4.7707	0.3387	0.6052	0.204968	1	0.111	-1.221	4.4320	=	0.0222		
							b =	26.31				b =	0.27								
		0	8																		
		% Non-detect	0.0			W	0.879				W	0.908									
		Range Raw	84.1	118.0		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		96.0125					4.5595												
		Std Dev		10.6098					0.1053		0.908		0.879								
		UTL		129.8364					133.6549												
		Outlier Test (raw)		2.0724	Outlier!	118.0	96.0125	10.6098	118.0588												
		Outlier Test (log)		2.0053	None																





4101173

CADMIUM

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB001	N1	JEFB001-SW	SW6010	MG/L	CD	CADMIUM	0.0005	0.0005	-7.6009	TR	0.0005	F	
JEFB002	N1	JEFB002-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
JEFB008	N1	JEFB008-SW	SW6010	MG/L	CD	CADMIUM	0.0000	0.00025	-8.2940	ND	0.0005	U	
						7	8						
						% Non-detect	87.5%						
						Range Raw	0.0003	0.0005					
						Range Log	-8.2940	-7.6009					
						Mean		0.00028					
						Std Dev		0.00009					

4101180

CHROMIUM

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB008	N1	JEFB008-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0078	0.0078	-4.8536	TR	0.0053	F	
JEFB001	N1	JEFB001-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0074	0.0074	-4.9063	TR	0.0053	F	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0061	0.0061	-5.0995	TR	0.0053	F	
JEFB002	N1	JEFB002-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0000	0.00265	-5.9332	ND	0.0053	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0000	0.00265	-5.9332	ND	0.0053	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0000	0.00265	-5.9332	ND	0.0053	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0000	0.00265	-5.9332	ND	0.0053	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	CR	CHROMIUM, TOTAL	0.0000	0.00265	-5.9332	ND	0.0053	U	
						5	8						
						% Non-detect	62.5%						
						Range Raw	0.0027	0.0078					
						Range Log	-5.9332	-4.8536					
						Mean		0.00432					
						Std Dev		0.00235					

4101181

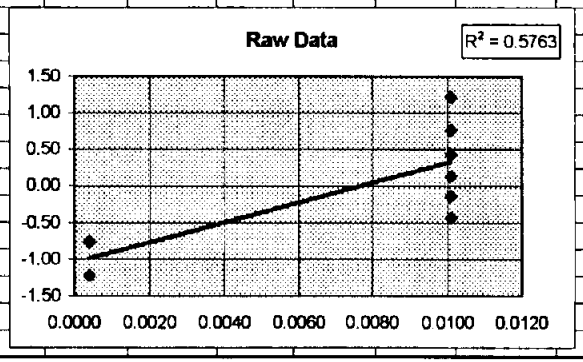
COBALT

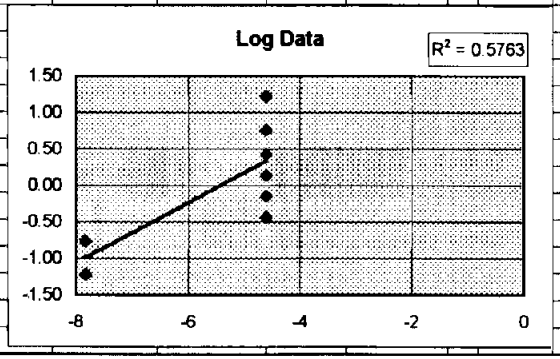
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB001	N1	JEFB001-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
JEFB008	N1	JEFB008-SW	SW6010	MG/L	CO	COBALT	0.0000	0.00445	-5.4149	ND	0.0089	U	
						8	8						
						% Non-detect	100.0%						
						Range Raw	0.0045	0.0045					
						Range Log	-5.4149	-5.4149					
						Mean		0.00445					
						Std Dev		0.00000					

4101182

COPPER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	DET	LQ	VQ
JEFB001-SW	MG/L	COPPER	0.0101	0.0101	0.0004	-0.0097			-4.5952	-7.8240	-3.2288			8	0.889	1.221	TR	0.0008	F	
JEFB006-SW	MG/L	COPPER	0.0101	0.0101	0.0004	-0.0097			-4.5952	-7.8240	-3.2288			7	0.778	0.765	TR	0.0008	F	
JEFB002-SW	MG/L	COPPER	0.0101	0.0101	0.0101	0.0000			-4.5952	-4.5952	0.0000			6	0.667	0.431	TR	0.0008	F	
JEFB003-SW	MG/L	COPPER	0.0101	0.0101	0.0101	0.0000			-4.5952	-4.5952	0.0000			5	0.556	0.140	TR	0.0008	F	
JEFB005-SW	MG/L	COPPER	0.0101	0.0101	0.0101	0.0000	0.0561	0.000000	-4.5952	-4.5952	0.0000	0.0561	0.000000	4	0.444	-0.140	TR	0.0008	F	
JEFB007-SW	MG/L	COPPER	0.0101	0.0101	0.0101	0.0000	0.1743	0.000000	-4.5952	-4.5952	0.0000	0.1743	0.000000	3	0.333	-0.431	TR	0.0008	F	
JEFB004-SW	MG/L	COPPER	0.0000	0.0004	0.0101	0.0097	0.3164	0.003069	-7.8240	-4.5952	3.2288	0.3164	1.021601	2	0.222	-0.765	ND	0.0008	U	
JEFB008-SW	MG/L	COPPER	0.0000	0.0004	0.0101	0.0097	0.6052	0.005870	-7.8240	-4.5952	3.2288	0.6052	1.954086	1	0.111	-1.221	ND	0.0008	U	
							b =	**0.01**				**b =**	**2.98**							
		2	8																	
		% Non-detect	0.3			W	0.566				W	0.566								
		Range Raw	0.0004	0.0101		W (crit)	0.818				W (crit)	0.818								
							Reject					Reject								
		Mean		0.0077					-5.4024											
		Std Dev		0.0045					1.4947		0.566		0.566							
		UTL		0.022					0.5286											
		Outlier Test (raw)		0.5401	None	0.0101	0.0077	0.0045	0.0909											
		Outlier Test (log)		0.5401	None															

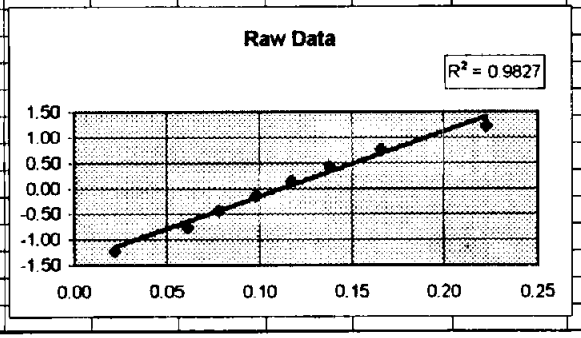


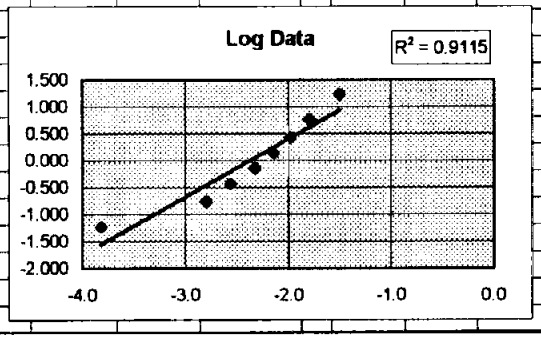


4101183

IRON

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB001-SW	MG/L	IRON	0.2230	0.2230	0.0221	-0.2009			-1.5006	-3.8122	-2.3116			8	0.889	1.221	-1.5006	=	0.0035		
JEFB004-SW	MG/L	IRON	0.1660	0.1660	0.0611	-0.1049			-1.7958	-2.7952	-0.9995			7	0.778	0.765	-1.7958	=	0.0035		
JEFB006-SW	MG/L	IRON	0.1380	0.1380	0.0773	-0.0607			-1.9805	-2.5601	-0.5796			6	0.667	0.431	-1.9805	=	0.0035		
JEFB005-SW	MG/L	IRON	0.1170	0.1170	0.0978	-0.0192			-2.1456	-2.3248	-0.1792			5	0.556	0.140	-2.1456	=	0.0035		
JEFB002-SW	MG/L	IRON	0.0978	0.0978	0.1170	0.0192	0.0561	0.001077	-2.3248	-2.1456	0.1792	0.0561	0.010056	4	0.444	-0.140	-2.3248	=	0.0035		
JEFB003-SW	MG/L	IRON	0.0773	0.0773	0.1380	0.0607	0.1743	0.010580	-2.5601	-1.9805	0.5796	0.1743	0.101017	3	0.333	-0.431	-2.5601	=	0.0035		
JEFB008-SW	MG/L	IRON	0.0611	0.0611	0.1660	0.1049	0.3164	0.033190	-2.7952	-1.7958	0.9995	0.3164	0.316234	2	0.222	-0.765	-2.7952	TR	0.0035	F	
JEFB007-SW	MG/L	IRON	0.0221	0.0221	0.2230	0.2009	0.6052	0.121585	-3.8122	-1.5006	2.3116	0.6052	1.398977	1	0.111	-1.221	-3.8122	TR	0.0035	F	
							b =	**0.17**				b =	**1.83**								
		0	8																		
		% Non-detec	0.0			W	0.989				W	0.930									
		Range Raw	0.0221	0.223		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		0.1128					-2.3643												
		Std Dev		0.0633					0.7158		0.930		0.989								
		UTL		0.3145					0.9208												
		Outlier Test (raw)		1.7423	None	0.223	0.1128	0.0633	0.3963												
		Outlier Test (log)		1.2068	None																





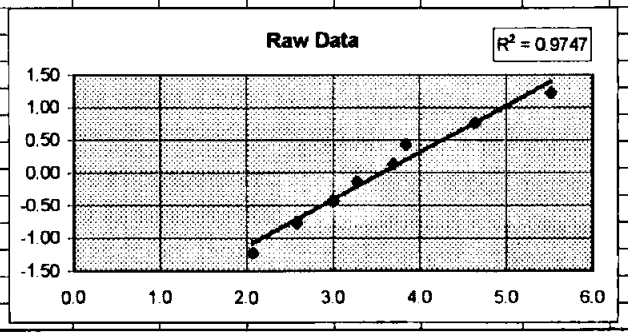
LEAD

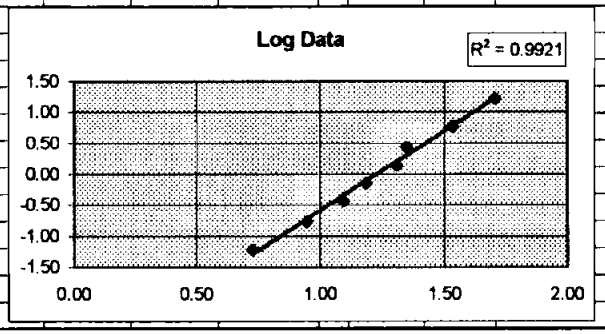
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB001	N1	JEFB001-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
JEFB008	N1	JEFB008-SW	SW6010	MG/L	PB	LEAD	0.0000	0.0008	-7.1309	ND	0.0016	U	
						8	8						
						% Non-detect	100.0%						
						Range Raw	0.0008	0.0008					
						Range Log	-7.1309	-7.1309					
						Mean		0.00080					
						Std Dev		0.00000					

4101185

MAGNESIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB006-SW	MG/L	MAGNESIUM	5.5200	5.5200	2.0700	-3.4500			1.7084	0.7275	-0.9808			8	0.889	1.221	1.7084	=	0.0342		
JEFB008-SW	MG/L	MAGNESIUM	4.6400	4.6400	2.5800	-2.0600			1.5347	0.9478	-0.5869			7	0.778	0.765	1.5347	=	0.0342		
JEFB003-SW	MG/L	MAGNESIUM	3.8500	3.8500	3.0000	-0.8500			1.3481	1.0986	-0.2495			6	0.667	0.431	1.3481	=	0.0342		
JEFB004-SW	MG/L	MAGNESIUM	3.7000	3.7000	3.2800	-0.4200			1.3083	1.1878	-0.1205			5	0.556	0.140	1.3083	=	0.0342		
JEFB005-SW	MG/L	MAGNESIUM	3.2800	3.2800	3.7000	0.4200	0.0561	0.023562	1.1878	1.3083	0.1205	0.0561	0.006759	4	0.444	-0.140	1.1878	=	0.0342		
JEFB001-SW	MG/L	MAGNESIUM	3.0000	3.0000	3.8500	0.8500	0.1743	0.148155	1.0986	1.3481	0.2495	0.1743	0.043481	3	0.333	-0.431	1.0986	=	0.0342		
JEFB002-SW	MG/L	MAGNESIUM	2.5800	2.5800	4.6400	2.0600	0.3164	0.651784	0.9478	1.5347	0.5869	0.3164	0.185703	2	0.222	-0.765	0.9478	=	0.0342		
JEFB007-SW	MG/L	MAGNESIUM	2.0700	2.0700	5.5200	3.4500	0.6052	2.087940	0.7275	1.7084	0.9808	0.6052	0.593598	1	0.111	-1.221	0.7275	=	0.0342		
							b =	**2.91**				b =	**0.83**								
		0	8																		
		% Non-detect	0.0			W	0.976				W	0.993									
		Range Raw	2.07	5.52		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		3.58					1.2327												
		Std Dev		1.1136					0.3146		0.993		0.976								
		UTL		7.1302					9.3525												
		Outlier Test (raw)		1.7421	None	5.52	3.58	1.1136	6.4561												
		Outlier Test (log)		1.5121	None																

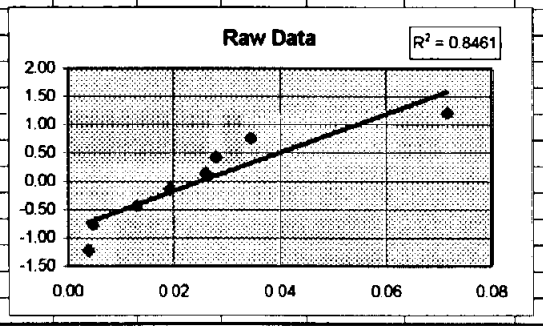


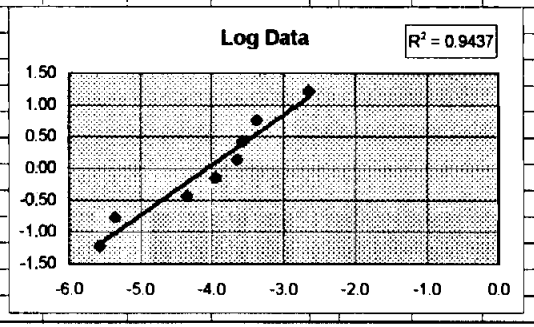


410118G

MANGANESE

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB006-SW	MG/L	MANGANESE	0.0716	0.0716	0.0038	-0.0678			-2.6367	-5.5728	-2.9361			8	0.889	1.221	-2.6367	=	0.0013		
JEFB005-SW	MG/L	MANGANESE	0.0345	0.0345	0.0047	-0.0298			-3.3668	-5.3602	-1.9934			7	0.778	0.765	-3.3668	=	0.0013		
JEFB001-SW	MG/L	MANGANESE	0.0281	0.0281	0.0129	-0.0152			-3.5720	-4.3505	-0.7785			6	0.667	0.431	-3.5720	=	0.0013		
JEFB002-SW	MG/L	MANGANESE	0.0262	0.0262	0.0193	-0.0069			-3.6420	-3.9477	-0.3057			5	0.556	0.140	-3.6420	=	0.0013		
JEFB003-SW	MG/L	MANGANESE	0.0193	0.0193	0.0262	0.0069	0.0561	0.000387	-3.9477	-3.6420	0.3057	0.0561	0.017147	4	0.444	-0.140	-3.9477	TR	0.0013	F	
JEFB004-SW	MG/L	MANGANESE	0.0129	0.0129	0.0281	0.0152	0.1743	0.002649	-4.3505	-3.5720	0.7785	0.1743	0.135700	3	0.333	-0.431	-4.3505	TR	0.0013	F	
JEFB008-SW	MG/L	MANGANESE	0.0047	0.0047	0.0345	0.0298	0.3164	0.009429	-5.3602	-3.3668	1.9934	0.3164	0.630711	2	0.222	-0.765	-5.3602	TR	0.0013	F	
JEFB007-SW	MG/L	MANGANESE	0.0038	0.0038	0.0716	0.0678	0.6052	0.041033	-5.5728	-2.6367	2.9361	0.6052	1.776924	1	0.111	-1.221	-5.5728	TR	0.0013	F	
							b =	**0.05**				**b =**	**2.56**								
		0	8																		
		% Non-detect	0.0			W	0.864				W	0.937									
		Range Raw	0.0038	0.0716		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		0.0251					-4.0561												
		Std Dev		0.0218					0.9997		0.937		0.864								
		UTL		0.0945					0.4193												
		Outlier Test (raw)		2.1357	Outlier!	0.0716	0.0251	0.0218	0.1292												
		Outlier Test (log)		1.4199	None																





4101187

MERCURY

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB004	N1	JEFB004-SW	SW7470	MG/L	HG	MERCURY	0.0001	0.0001	-9.2103	=	0.0001	F	
JEFB002	N1	JEFB002-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
JEFB001	N1	JEFB001-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
JEFB003	N1	JEFB003-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
JEFB005	N1	JEFB005-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
JEFB006	N1	JEFB006-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
JEFB007	N1	JEFB007-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
JEFB008	N1	JEFB008-SW	SW7470	MG/L	HG	MERCURY	0.0000	0.00005	-9.9035	ND	0.0001	U	
						7	8						
						% Non-detect	87.5%						
						Range Raw	0.0001	0.0001					
						Range Log	-9.9035	-9.2103					
						Mean		0.00006					
						Std Dev		0.00002					

4101183

MOLYBDENUM

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB001	N1	JEFB001-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB003	N1	JEFB003-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB004	N1	JEFB004-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB005	N1	JEFB005-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB006	N1	JEFB006-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB007	N1	JEFB007-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
JEFB008	N1	JEFB008-SW	SW6010	MG/L	MO	MOLYBDENUM	0.0000	0.0072	-4.9337	ND	0.0144	U	
						8	8						
						% Non-detect	100.0%						
						Range Raw	0.0072	0.0072					
						Range Log	-4.9337	-4.9337					
						Mean		0.00720					
						Std Dev		0.00000					

4101189

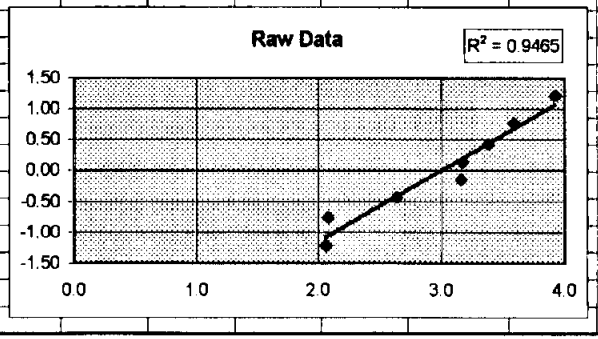
NICKEL

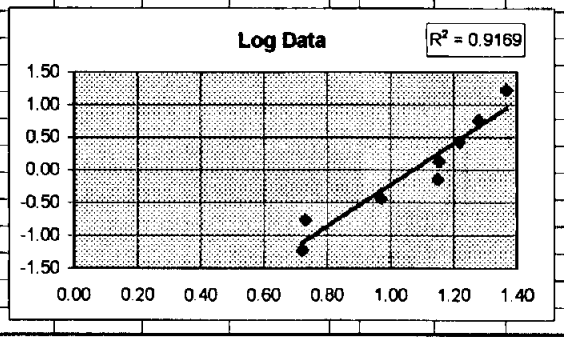
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB001	N1	JEFB001-SW	SW7520	MG/L	NI	NICKEL	0.0178	0.0178	-4.0286	=	0.0020	U	
JEFB002	N1	JEFB002-SW	SW7520	MG/L	NI	NICKEL	0.0020	0.0020	-6.2146	TR	0.0020	F	
JEFB003	N1	JEFB003-SW	SW7520	MG/L	NI	NICKEL	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB004	N1	JEFB004-SW	SW7520	MG/L	NI	NICKEL	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB005	N1	JEFB005-SW	SW7520	MG/L	NI	NICKEL	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB006	N1	JEFB006-SW	SW7520	MG/L	NI	NICKEL	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB007	N1	JEFB007-SW	SW7520	MG/L	NI	NICKEL	0.0000	0.0010	-6.9078	ND	0.0020	U	
JEFB008	N1	JEFB008-SW	SW7520	MG/L	NI	NICKEL	0.0000	0.0010	-6.9078	ND	0.0020	U	
						6	8						
						% Non-detect	75.0%						
						Range Raw	0.0010	0.0178					
						Range Log	-6.9078	-4.0286					
						Mean		0.00323					
						Std Dev		0.00590					

A101190

POTASSIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB006-SW	MG/L	POTASSIUM	3.9300	3.9300	2.0600	-1.8700			1.3686	0.7227	-0.6459			8	0.889	1.221	1.3686	TR	0.4660	F	
JEFB008-SW	MG/L	POTASSIUM	3.5900	3.5900	2.0800	-1.5100			1.2782	0.7324	-0.5458			7	0.778	0.765	1.2782	TR	0.4660	F	
JEFB001-SW	MG/L	POTASSIUM	3.3800	3.3800	2.6400	-0.7400			1.2179	0.9708	-0.2471			6	0.667	0.431	1.2179	TR	0.4660	F	
JEFB005-SW	MG/L	POTASSIUM	3.1700	3.1700	3.1600	-0.0100			1.1537	1.1506	-0.0032			5	0.556	0.140	1.1537	TR	0.4660	F	
JEFB003-SW	MG/L	POTASSIUM	3.1600	3.1600	3.1700	0.0100	0.0561	0.000561	1.1506	1.1537	0.0032	0.0561	0.000177	4	0.444	-0.140	1.1506	TR	0.4660	F	
JEFB002-SW	MG/L	POTASSIUM	2.6400	2.6400	3.3800	0.7400	0.1743	0.128982	0.9708	1.2179	0.2471	0.1743	0.043069	3	0.333	-0.431	0.9708	TR	0.4660	F	
JEFB007-SW	MG/L	POTASSIUM	2.0800	2.0800	3.5900	1.5100	0.3164	0.477764	0.7324	1.2782	0.5458	0.3164	0.172686	2	0.222	-0.765	0.7324	TR	0.4660	F	
JEFB004-SW	MG/L	POTASSIUM	2.0600	2.0600	3.9300	1.8700	0.6052	1.131724	0.7227	1.3686	0.6459	0.6052	0.390919	1	0.111	-1.221	0.7227	TR	0.4660	F	
							b =	**1.74**				**b =**	**0.61**								
		0	8																		
		% Non-detect	0.0			W	0.924				W	0.893									
		Range Raw	2.06	3.93		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		3.0013					1.0744												
		Std Dev		0.6836					0.2427		0.893		0.924								
		UTL		5.1807					6.3468												
		Outlier Test (raw)		1.3585	None	3.93	3.0013	0.6836	4.7688												
		Outlier Test (log)		1.2128	None																

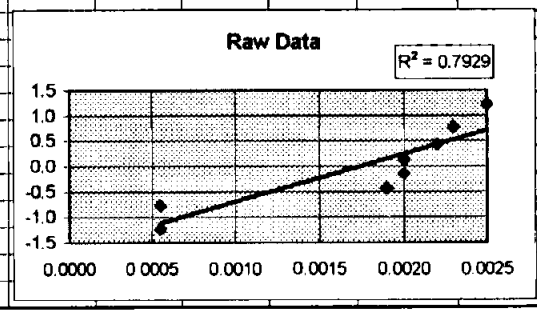


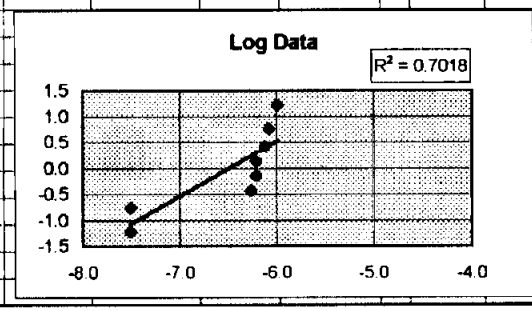


4101191

SELENIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ
JEFB005-SW	MG/L	SELENIUM	0.0025	0.0025	0.0006	-0.0020			-5.9915	-7.5056	-1.5141			8	0.889	1.221	-5.9915	TR	0.0011	F
JEFB002-SW	MG/L	SELENIUM	0.0023	0.0023	0.0006	-0.0018			-6.0748	-7.5056	-1.4307			7	0.778	0.765	-6.0748	TR	0.0011	F
JEFB006-SW	MG/L	SELENIUM	0.0022	0.0022	0.0019	-0.0003			-6.1193	-6.2659	-0.1466			6	0.667	0.431	-6.1193	TR	0.0011	F
JEFB001-SW	MG/L	SELENIUM	0.0020	0.0020	0.0020	0.0000			-6.2146	-6.2146	0.0000			5	0.556	0.140	-6.2146	TR	0.0011	F
JEFB007-SW	MG/L	SELENIUM	0.0020	0.0020	0.0020	0.0000	0.0561	0.000000	-6.2146	-6.2146	0.0000	0.0561	0.000000	4	0.444	-0.140	-6.2146	TR	0.0011	F
JEFB003-SW	MG/L	SELENIUM	0.0019	0.0019	0.0022	0.0003	0.1743	0.000052	-6.2659	-6.1193	0.1466	0.1743	0.025553	3	0.333	-0.431	-6.2659	TR	0.0011	F
JEFB004-SW	MG/L	SELENIUM	0.0000	0.00055	0.0023	0.0018	0.3164	0.000554	-7.5056	-6.0748	1.4307	0.3164	0.452688	2	0.222	-0.765	-7.5056	ND	0.0011	U
JEFB008-SW	MG/L	SELENIUM	0.0000	0.00055	0.0025	0.0020	0.6052	0.001180	-7.5056	-5.9915	1.5141	0.6052	0.916350	1	0.111	-1.221	-7.5056	ND	0.0011	U
							b =	**0.00**				b =	**1.39**							
		2	8																	
		% Non-detect	0.3			W	0.779				W	0.689								
		Range Raw	0.0006	0.0025		W (crit)	0.818				W (crit)	0.818								
							Reject					Reject								
		Mean		0.0018					-6.4865											
		Std Dev		0.0008					0.635		0.689		0.779							
		UTL		0.0042					0.0115											
		Outlier Test (raw)		0.9806	None	0.0025	0.0018	0.0008	0.0055											
		Outlier Test (log)		0.7795	None															





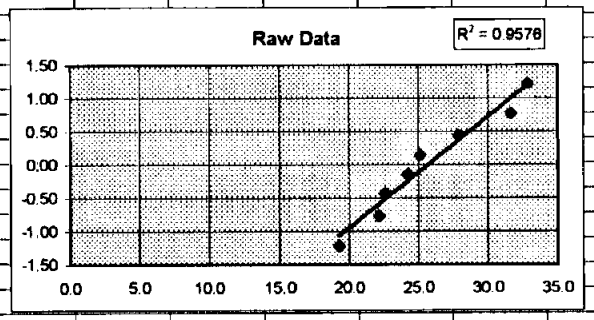
SILVER

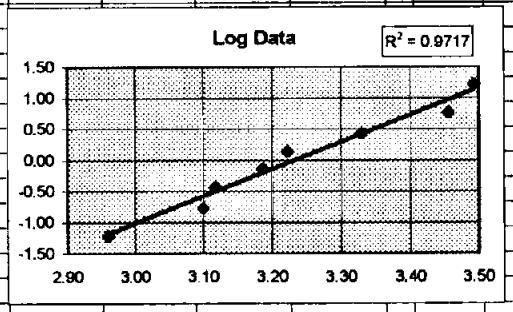
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB002	N1	JEFB002-SW	SW7761	MG/L	AG	SILVER	0.0003	0.0003	-8.1117	TR	0.0002	F	
JEFB003	N1	JEFB003-SW	SW7761	MG/L	AG	SILVER	0.0002	0.0002	-8.5172	TR	0.0002	F	
JEFB001	N1	JEFB001-SW	SW7761	MG/L	AG	SILVER	0.0000	0.0001	-9.2103	ND	0.0002	U	
JEFB004	N1	JEFB004-SW	SW7761	MG/L	AG	SILVER	0.0000	0.0001	-9.2103	ND	0.0002	U	
JEFB005	N1	JEFB005-SW	SW7761	MG/L	AG	SILVER	0.0000	0.0001	-9.2103	ND	0.0002	U	
JEFB006	N1	JEFB006-SW	SW7761	MG/L	AG	SILVER	0.0000	0.0001	-9.2103	ND	0.0002	U	
JEFB007	N1	JEFB007-SW	SW7761	MG/L	AG	SILVER	0.0000	0.0001	-9.2103	ND	0.0002	U	
JEFB008	N1	JEFB008-SW	SW7761	MG/L	AG	SILVER	0.0000	0.0001	-9.2103	ND	0.0002	U	
						6	8						
						% Non-detect	75.0%						
						Range Raw	0.0001	0.0003					
						Range Log	-9.2103	-8.1117					
						Mean		0.00014					
						Std Dev		0.00007					

4101193

SODIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB008-SW	MG/L	SODIUM	32.9000	32.9000	19.3000	-13.6000			3.4935	2.9601	-0.5334			8	0.889	1.221	3.4935	=	0.0500		
JEFB003-SW	MG/L	SODIUM	31.7000	31.7000	22.2000	-9.5000			3.4563	3.1001	-0.3562			7	0.778	0.765	3.4563	=	0.0500		
JEFB004-SW	MG/L	SODIUM	27.9000	27.9000	22.6000	-5.3000			3.3286	3.1179	-0.2107			6	0.667	0.431	3.3286	=	0.0500		
JEFB001-SW	MG/L	SODIUM	25.1000	25.1000	24.2000	-0.9000			3.2229	3.1864	-0.0365			5	0.556	0.140	3.2229	=	0.0500		
JEFB005-SW	MG/L	SODIUM	24.2000	24.2000	25.1000	0.9000	0.0561	0.050490	3.1864	3.2229	0.0365	0.0561	0.002049	4	0.444	-0.140	3.1864	=	0.0500		
JEFB007-SW	MG/L	SODIUM	22.6000	22.6000	27.9000	5.3000	0.1743	0.923790	3.1179	3.3286	0.2107	0.1743	0.036721	3	0.333	-0.431	3.1179	=	0.0500		
JEFB006-SW	MG/L	SODIUM	22.2000	22.2000	31.7000	9.5000	0.3164	3.005800	3.1001	3.4563	0.3562	0.3164	0.112709	2	0.222	-0.765	3.1001	=	0.0500		
JEFB002-SW	MG/L	SODIUM	19.3000	19.3000	32.9000	13.6000	0.6052	8.230720	2.9601	3.4935	0.5334	0.6052	0.322794	1	0.111	-1.221	2.9601	=	0.0500		
							b =	12.21				b =	0.47								
		0	8																		
		% Non-detect	0.0			W	0.943				W	0.959									
		Range Raw	19.3	32.9		W (crit)	0.818				W (crit)	0.818									
							Accept					Accept									
		Mean		25.7375					3.2332												
		Std Dev		4.7524					0.183		0.959		0.943								
		UTL		40.8882					45.4557												
		Outlier Test (raw)		1.5071	None	32.9	25.7375	4.7524	36.6393												
		Outlier Test (log)		1.4219	None																





4101194

THALLIUM

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL	PQUANT
JEFB001	N1	JEFB001-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB002	N1	JEFB002-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB003	N1	JEFB003-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB004	N1	JEFB004-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB005	N1	JEFB005-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB006	N1	JEFB006-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB007	N1	JEFB007-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
JEFB008	N1	JEFB008-SW	SW6010	MG/L	TL	THALLIUM	0.0000	0.0316		ND	0.0632	U		0.4
						8	8							
						% Non-detect	1.0							
						Range Raw	0.0316	0.0316						
						Mean		0.0316						
						Std Dev		0.0						

4101195

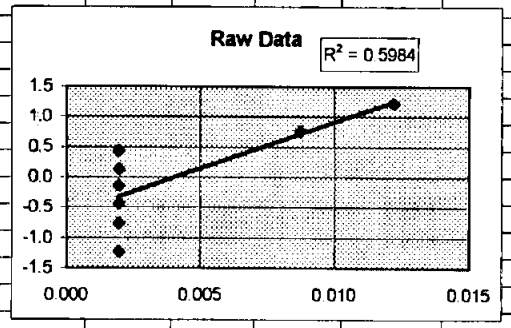
VANADIUM

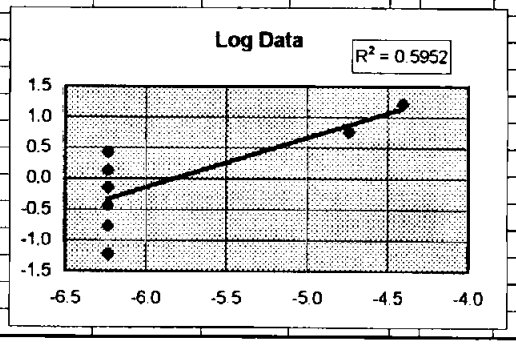
SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ	VQ
JEFB006-SW	MG/L	VANADIUM	0.0058	0.0058	0.0015	-0.0043			-5.1586	-6.5362	-1.3776			8	0.889	1.221	-5.1586	=	0.0029	F	
JEFB007-SW	MG/L	VANADIUM	0.0050	0.0050	0.0015	-0.0035			-5.3003	-6.5362	-1.2359			7	0.778	0.765	-5.3003	=	0.0029	F	
JEFB002-SW	MG/L	VANADIUM	0.0040	0.0040	0.0031	-0.0009			-5.5265	-5.7796	-0.2531			6	0.667	0.431	-5.5265	=	0.0029	F	
JEFB005-SW	MG/L	VANADIUM	0.0036	0.0036	0.0031	-0.0005			-5.6240	-5.7699	-0.1459			5	0.556	0.140	-5.6240	=	0.0029	F	
JEFB003-SW	MG/L	VANADIUM	0.0031	0.0031	0.0036	0.0005	0.0561	0.000027	-5.7699	-5.6240	0.1459	0.0561	0.008184	4	0.444	-0.140	-5.7699	=	0.0029	F	
JEFB008-SW	MG/L	VANADIUM	0.0031	0.0031	0.0040	0.0009	0.1743	0.000155	-5.7796	-5.5265	0.2531	0.1743	0.044117	3	0.333	-0.431	-5.7796	=	0.0029	F	
JEFB001-SW	MG/L	VANADIUM	0.0000	0.0015	0.0050	0.0035	0.3164	0.001120	-6.5362	-5.3003	1.2359	0.3164	0.391030	2	0.222	-0.765	-6.5362	ND	0.0029	U	
JEFB004-SW	MG/L	VANADIUM	0.0000	0.0015	0.0058	0.0043	0.6052	0.002602	-6.5362	-5.1586	1.3776	0.6052	0.833745	1	0.111	-1.221	-6.5362	ND	0.0029	U	
							b =	**0.00**				**b =**	**1.28**								
		2	8																		
		% Non-detect	25.0%			W	0.941				W	0.882									
		Range Raw	0.0015	0.0058		W (crit)	0.818				W (crit)	0.818									
		Range Log	-6.5362	-5.1586			Accept					Accept									
		Mean		0.00343					-5.7789												
		Std Dev		0.00152					0.5139		0.882		0.941								
									0.0159												
					None	0.0058	0.0034	0.0015	0.0087												

4101196

ZINC

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	LN(CALC)	PQ	DET	LQ
JEFB006-SW	MG/L	ZINC	0.0122	0.0122	0.0020	-0.0103			-4.4063	-6.2399	-1.8336			8	0.889	1.221	-4.4063		0.0039	
JEFB001-SW	MG/L	ZINC	0.0087	0.0087	0.0020	-0.0068			-4.7398	-6.2399	-1.5001			7	0.778	0.765	-4.7398		0.0039	
JEFB007-SW	MG/L	ZINC	0.0000	0.0020	0.0020	0.0000			-6.2399	-6.2399	0.0000			6	0.667	0.431	-6.2399		0.0039	
JEFB002-SW	MG/L	ZINC	0.0000	0.0020	0.0020	0.0000			-6.2399	-6.2399	0.0000			5	0.556	0.140	-6.2399		0.0039	
JEFB005-SW	MG/L	ZINC	0.0000	0.0020	0.0020	0.0000	0.0561	0.000000	-6.2399	-6.2399	0.0000	0.0561	0.000000	4	0.444	-0.140	-6.2399		0.0039	
JEFB003-SW	MG/L	ZINC	0.0000	0.0020	0.0020	0.0000	0.1743	0.000000	-6.2399	-6.2399	0.0000	0.1743	0.000000	3	0.333	-0.431	-6.2399		0.0039	
JEFB008-SW	MG/L	ZINC	0.0000	0.0020	0.0087	0.0068	0.3164	0.002148	-6.2399	-4.7398	1.5001	0.3164	0.474626	2	0.222	-0.765	-6.2399		0.0039	
JEFB004-SW	MG/L	ZINC	0.0000	0.0020	0.0122	0.0103	0.6052	0.006203	-6.2399	-4.4063	1.8336	0.6052	1.109699	1	0.111	-1.221	-6.2399		0.0039	
							b =	**0.01**				**b =**	**1.58**							
		6	8																	
		% Non-dete	75%			W	0.607				W	0.594								
		Range Raw	0.002	0.0122		W (crit)	0.818				W (crit)	0.818								
							Reject					Reject								
		Mean		0.0041					-5.8232											
		Std Dev		0.0041					0.7767		0.594		0.607							
		UTL		0.017					0.0352											
		Outlier Test (raw)		2.0045	None	0.0122	0.0041	0.0041	0.0141											
		Outlier Test (log)		1.8242	None															

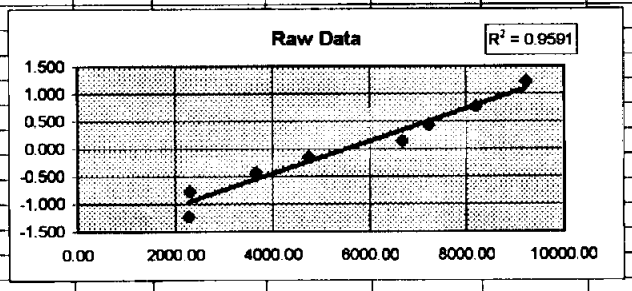


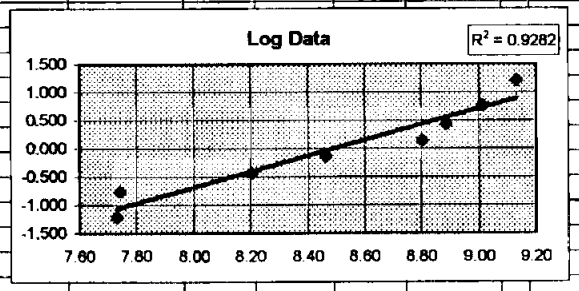


4101197

ALUMINUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB007-SE	MG/KG	ALUMINUM	9240.0	9240.0	2280.0000	-6960.0000			9.1313	7.7319	-1.3994			8	0.889	1.221	=	1.4200		
JEFB003-SE	MG/KG	ALUMINUM	8210.0	8210.0	2300.0000	-5910.0000			9.0131	7.7407	-1.2724			7	0.778	0.765	=	1.4400		
JEFB005-SE	MG/KG	ALUMINUM	7230.0	7230.0	3660.0000	-3570.0000			8.8860	8.2052	-0.6808			6	0.667	0.431	=	1.4300		
JEFB008-SE	MG/KG	ALUMINUM	6660.0	6660.0	4740.0000	-1920.0000			8.8039	8.4638	-0.3401			5	0.556	0.140	=	1.3500		
JEFB002-SE	MG/KG	ALUMINUM	4740.0	4740.0	6660.0000	1920.0000	0.0561	107.712000	8.4638	8.8039	0.3401	0.0561	0.019079	4	0.444	-0.140	=	1.2800		
JEFB006-SE	MG/KG	ALUMINUM	3660.0	3660.0	7230.0000	3570.0000	0.1743	622.251000	8.2052	8.8860	0.6808	0.1743	0.118659	3	0.333	-0.431	=	1.3100		
JEFB001-SE	MG/KG	ALUMINUM	2300.0	2300.0	8210.0000	5910.0000	0.3164	1869.924000	7.7407	9.0131	1.2724	0.3164	0.402601	2	0.222	-0.765	=	1.2300		
JEFB004-SE	MG/KG	ALUMINUM	2280.0	2280.0	9240.0000	6960.0000	0.6052	4212.192000	7.7319	9.1313	1.3994	0.6052	0.846897	1	0.111	-1.221	=	1.3600		
							b =	6812.08				b =	1.39							
		0	8																	
		% Non-detect	0.0			W	0.924				W	0.892								
		Range Raw	2280.0	9240.0		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		5540.0					8.497											
		Std Dev		2678.7257					0.5552		0.892		0.924							
		UTL		14079.7776					28767.251											
		Outlier Test (raw)		1.3813	None	9240.0	5540.0	2678.7257	14957.3205											
		Outlier Test (log)		1.1425	None															





4101198

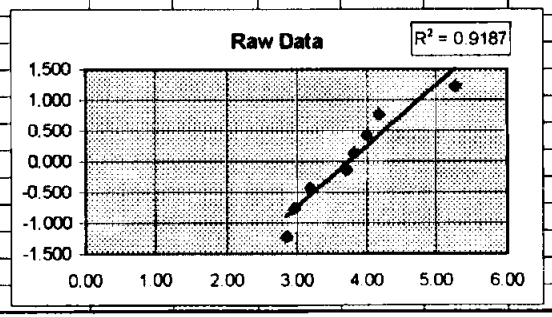
ANTIMONY

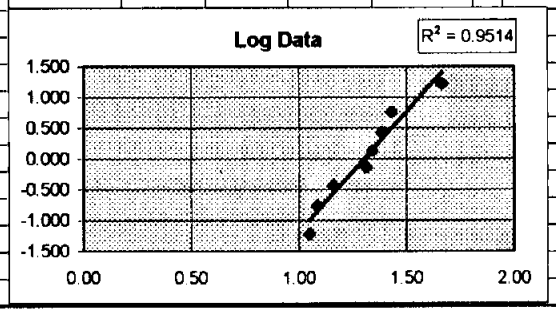
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB003	N1	JEFB003-SE	SW7041	MG/KG	SB	ANTIMONY	0.3260	0.3260		TR	0.2860	F	
JEFB005	N1	JEFB005-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1410		ND	0.2820	U	
JEFB007	N1	JEFB007-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1405		ND	0.2810	U	
JEFB004	N1	JEFB004-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1350		ND	0.2700	U	
JEFB008	N1	JEFB008-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1335		ND	0.2670	U	
JEFB006	N1	JEFB006-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1295		ND	0.2590	U	
JEFB002	N1	JEFB002-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1265		ND	0.2530	U	
JEFB001	N1	JEFB001-SE	SW7041	MG/KG	SB	ANTIMONY	0.0000	0.1220		ND	0.2440	U	
						7	8						
						% Non-detect	87.5%						
						Range Raw	0.1220	0.3260					
						Range Log	0.0000	0.0000					
						Mean		0.15675					
						Std Dev		0.06870					

4101199

ARSENIC

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB001-SE	MG/KG	ARSENIC	5.270	5.270	2.8500	-2.4200			1.6620	1.0473	-0.6147			8	0.889	1.221	=	0.5610		
JEFB006-SE	MG/KG	ARSENIC	4.180	4.180	2.9600	-1.2200			1.4303	1.0852	-0.3451			7	0.778	0.765	=	0.5960		
JEFB004-SE	MG/KG	ARSENIC	4.000	4.000	3.1900	-0.8100			1.3863	1.1600	-0.2263			6	0.667	0.431	=	0.6200		
JEFB008-SE	MG/KG	ARSENIC	3.820	3.820	3.7200	-0.1000			1.3403	1.3137	-0.0265			5	0.556	0.140	=	0.6140		
JEFB007-SE	MG/KG	ARSENIC	3.720	3.720	3.8200	0.1000	0.0561	0.005610	1.3137	1.3403	0.0265	0.0561	0.001488	4	0.444	-0.140	=	0.6470		
JEFB005-SE	MG/KG	ARSENIC	3.190	3.190	4.0000	0.8100	0.1743	0.141183	1.1600	1.3863	0.2263	0.1743	0.039439	3	0.333	-0.431	=	0.6500		
JEFB003-SE	MG/KG	ARSENIC	2.960	2.960	4.1800	1.2200	0.3164	0.386008	1.0852	1.4303	0.3451	0.3164	0.109197	2	0.222	-0.765	=	0.6570		
JEFB002-SE	MG/KG	ARSENIC	2.850	2.850	5.2700	2.4200	0.6052	1.464584	1.0473	1.6620	0.6147	0.6052	0.372023	1	0.111	-1.221	=	0.5810		
							b =	**2.00**				**b =**	**0.52**							
		0	8																	
		% Non-detect	0.0			W	0.925				W	0.951								
		Range Raw	2.85	5.27		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		3.7488					1.3031											
		Std Dev		0.7848					0.2024		0.951		0.925							
		UTL		6.2507					7.0178											
		Outlier Test (raw)		1.9384	None	5.27	3.7488	0.7848	5.529											
		Outlier Test (log)		1.7730	None															

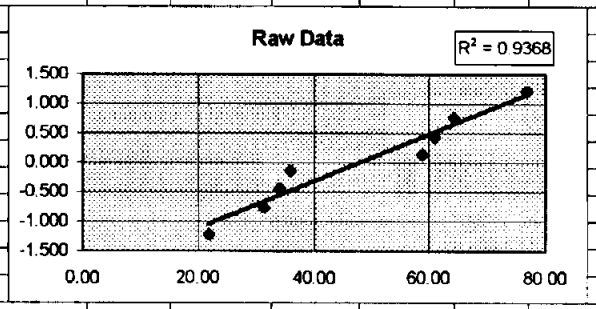


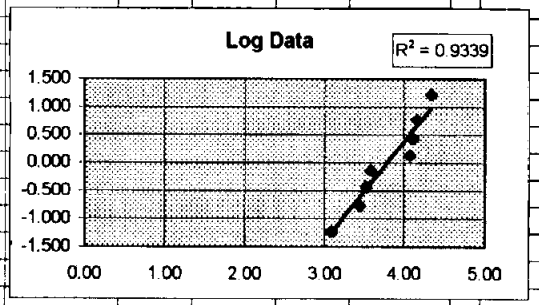


4101200

BARIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB005-SE	MG/KG	BARIUM	76.80	76.80	21.9000	-54.9000			4.3412	3.0865	-1.2547			8	0.889	1.221	=	0.0565		
JEFB007-SE	MG/KG	BARIUM	64.40	64.40	31.3000	-33.1000			4.1651	3.4436	-0.7215			7	0.778	0.765	=	0.0563		
JEFB008-SE	MG/KG	BARIUM	61.00	61.00	34.0000	-27.0000			4.1109	3.5264	-0.5845			6	0.667	0.431	=	0.0534		
JEFB003-SE	MG/KG	BARIUM	58.90	58.90	35.9000	-23.0000			4.0758	3.5807	-0.4951			5	0.556	0.140	=	0.0571		
JEFB001-SE	MG/KG	BARIUM	35.90	35.90	58.9000	23.0000	0.0561	1.290300	3.5807	4.0758	0.4951	0.0561	0.027775	4	0.444	-0.140	=	0.0488		
JEFB006-SE	MG/KG	BARIUM	34.00	34.00	61.0000	27.0000	0.1743	4.706100	3.5264	4.1109	0.5845	0.1743	0.101881	3	0.333	-0.431	=	0.0518		
JEFB002-SE	MG/KG	BARIUM	31.30	31.30	64.4000	33.1000	0.3164	10.472840	3.4436	4.1651	0.7215	0.3164	0.228281	2	0.222	-0.765	=	0.0505		
JEFB004-SE	MG/KG	BARIUM	21.90	21.90	76.8000	54.9000	0.6052	33.225480	3.0865	4.3412	1.2547	0.6052	0.759355	1	0.111	-1.221	=	0.0539		
							b =	**49.69**				**b =**	**1.12**							
		0	8																	
		% Non-detect	0.0			W	0.918				W	0.920								
		Range Raw	21.9	76.8		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		48.025					3.7913											
		Std Dev		19.5985					0.4404		0.920		0.918							
		UTL		110.5051					180.3927											
		Outlier Test (raw)		1.4682	None	76.8	48.025	19.5985	107.3824											
		Outlier Test (log)		1.2488	None															

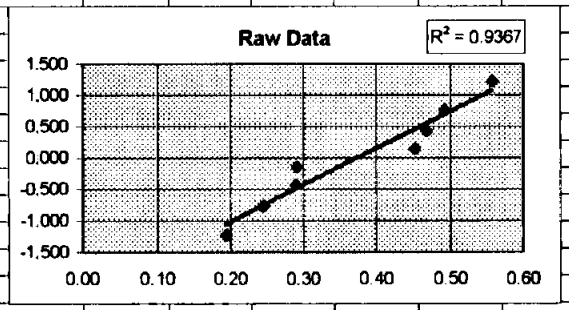


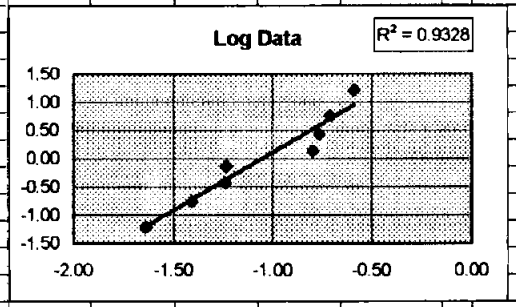


4101201

BERYLLIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB007-SE	MG/KG	BERYLLIUM	0.5570	0.5570	0.1940	-0.3630			-0.5852	-1.6399	-1.0547			8	0.889	1.221	=	0.0141		
JEFB005-SE	MG/KG	BERYLLIUM	0.4920	0.4920	0.2450	-0.2470			-0.7093	-1.4065	-0.6972			7	0.778	0.765	=	0.0141		
JEFB008-SE	MG/KG	BERYLLIUM	0.4670	0.4670	0.2900	-0.1770			-0.7614	-1.2379	-0.4764			6	0.667	0.431	=	0.0134		
JEFB003-SE	MG/KG	BERYLLIUM	0.4510	0.4510	0.2910	-0.1600			-0.7963	-1.2344	-0.4381			5	0.556	0.140	=	0.0143		
JEFB006-SE	MG/KG	BERYLLIUM	0.2910	0.2910	0.4510	0.1600	0.0561	0.008976	-1.2344	-0.7963	0.4381	0.0561	0.024580	4	0.444	-0.140	TR	0.0130	F	
JEFB002-SE	MG/KG	BERYLLIUM	0.2900	0.2900	0.4670	0.1770	0.1743	0.030851	-1.2379	-0.7614	0.4764	0.1743	0.083045	3	0.333	-0.431	TR	0.0126	F	
JEFB001-SE	MG/KG	BERYLLIUM	0.2450	0.2450	0.4920	0.2470	0.3164	0.078151	-1.4065	-0.7093	0.6972	0.3164	0.220601	2	0.222	-0.765	TR	0.0122	F	
JEFB004-SE	MG/KG	BERYLLIUM	0.1940	0.1940	0.5570	0.3630	0.6052	0.219688	-1.6399	-0.5852	1.0547	0.6052	0.638309	1	0.111	-1.221	TR	0.0135	F	
							b =	**0.34**				**b =**	**0.97**							
		0	8																	
		% Non-detect	0.0			W	0.912				W	0.912								
		Range Raw	0.194	0.557		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		0.3734					-1.0464											
		Std Dev		0.1338					0.3825		0.912		0.912							
		UTL		0.7993					1.1889											
		Outlier Test (raw)		1.3743	None	0.557	0.3734	0.1336	0.7576											
		Outlier Test (log)		1.2057	None															

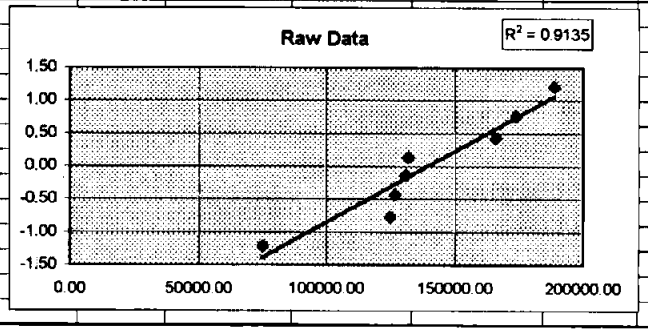


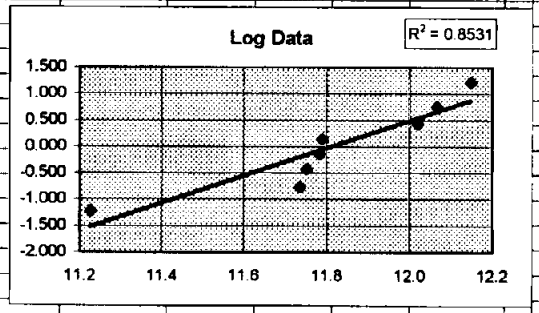


4101202

CALCIUM

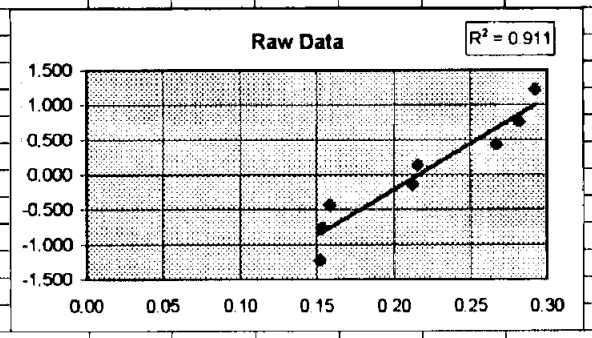
SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PVQ	DET	LQ	VQ
JEFB004-SE	MG/KG	CALCIUM	189000	189000	75100	-113900			12.1495	11.2266	-0.9229			8	0.889	1.221	=	3.0300		
JEFB001-SE	MG/KG	CALCIUM	174000	174000	125000	-49000			12.0668	11.7361	-0.3307			7	0.778	0.765	=	2.7400		
JEFB006-SE	MG/KG	CALCIUM	166000	166000	127000	-39000			12.0197	11.7519	-0.2678			6	0.667	0.431	=	2.9100		
JEFB008-SE	MG/KG	CALCIUM	132000	132000	131000	-1000			11.7906	11.7830	-0.0076			5	0.556	0.140	=	3.0000		
JEFB002-SE	MG/KG	CALCIUM	131000	131000	132000	1000	0.0561	56.10	11.7830	11.7906	0.0076	0.0561	0.000427	4	0.444	-0.140	=	2.8400		
JEFB007-SE	MG/KG	CALCIUM	127000	127000	166000	39000	0.1743	6797.70	11.7519	12.0197	0.2678	0.1743	0.046678	3	0.333	-0.431	=	3.1600		
JEFB003-SE	MG/KG	CALCIUM	125000	125000	174000	49000	0.3164	15503.60	11.7361	12.0668	0.3307	0.3164	0.104647	2	0.222	-0.765	=	3.2100		
JEFB005-SE	MG/KG	CALCIUM	75100	75100	189000	113900	0.6052	68932.28	11.2266	12.1495	0.9229	0.6052	0.558555	1	0.111	-1.221	=	3.1800		
							b =	91289.68				b =	0.71							
		0	8																	
		% Non-detect	0.0			W	0.928				W	0.877								
		Range Raw	75100.0	189000.0		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		139887.5					11.8155											
		Std Dev		35824.7894					0.2867		0.877		0.928							
		UTL		254096.9286					337543.63											
		Outlier Test (raw)		1.3709	None	189000.0	139887.5	35824.8	240805.0											
		Outlier Test (log)		1.1650	None															

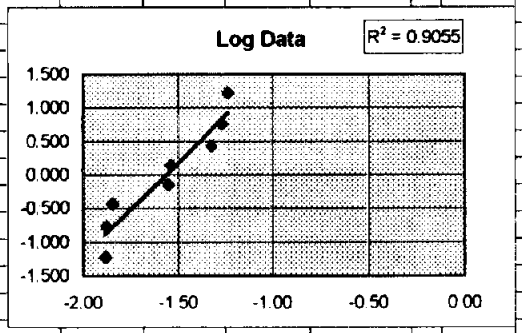




4101203

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB001-SE	MG/KG	CADMIUM	0.2920	0.2920	0.1520	-0.1400			-1.2310	-1.8839	-0.6529			8	0.889	1.221	=	0.1220		
JEFB004-SE	MG/KG	CADMIUM	0.2820	0.2820	0.1530	-0.1290			-1.2658	-1.8773	-0.6115			7	0.778	0.765	=	0.1350		
JEFB003-SE	MG/KG	CADMIUM	0.2670	0.2670	0.1580	-0.1090			-1.3205	-1.8452	-0.5247			6	0.667	0.431	=	0.1430		
JEFB006-SE	MG/KG	CADMIUM	0.2150	0.2150	0.2120	-0.0030			-1.5371	-1.5512	-0.0141			5	0.556	0.140	=	0.1300		
JEFB005-SE	MG/KG	CADMIUM	0.2120	0.2120	0.2150	0.0030	0.0561	0.000168	-1.5512	-1.5371	0.0141	0.0561	0.000788	4	0.444	-0.140	=	0.1410		
JEFB008-SE	MG/KG	CADMIUM	0.1580	0.1580	0.2670	0.1090	0.1743	0.018999	-1.8452	-1.3205	0.5247	0.1743	0.091447	3	0.333	-0.431	=	0.1340		
JEFB007-SE	MG/KG	CADMIUM	0.1530	0.1530	0.2820	0.1290	0.3164	0.040816	-1.8773	-1.2658	0.6115	0.3164	0.193469	2	0.222	-0.765	=	0.1410		
JEFB002-SE	MG/KG	CADMIUM	0.1520	0.1520	0.2920	0.1400	0.6052	0.084728	-1.8839	-1.2310	0.6529	0.6052	0.395119	1	0.111	-1.221	=	0.1260		
							b =	**0.14**				b =	**0.68**							
		0	8																	
		% Non-detect	0.0			W	0.866				W	0.859								
		Range Raw	0.152	0.292		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		0.2164					-1.564											
		Std Dev		0.0588					0.2776		0.859		0.866							
		UTL		0.4037					0.5071											
		Outlier Test (raw)		1.2868	None	0.292	0.2164	0.0588	0.3657											
		Outlier Test (log)		1.1995	None															

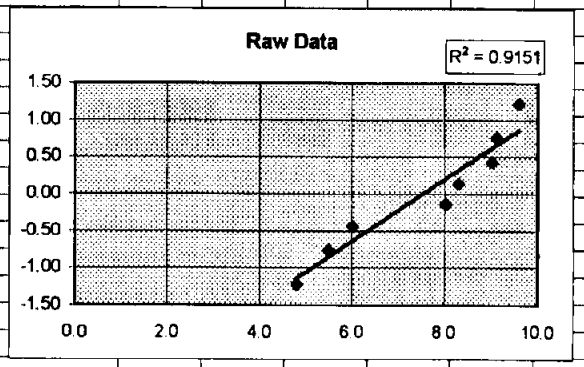


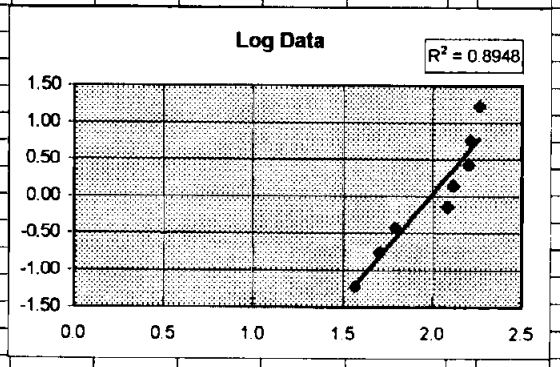


4101201

CHROMIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB003-SE	MG/KG	CHROMIUM, TOTAL	9.590	9.590	4.8100	-4.7800			2.2607	1.5707	-0.6900			8	0.889	1.221	TR	0.7860	F	
JEFB007-SE	MG/KG	CHROMIUM, TOTAL	9.120	9.120	5.4900	-3.6300			2.2105	1.7029	-0.5075			7	0.778	0.765	TR	0.7740	F	
JEFB004-SE	MG/KG	CHROMIUM, TOTAL	9.020	9.020	6.0100	-3.0100			2.1994	1.7934	-0.4060			6	0.667	0.431	TR	0.7410	F	
JEFB005-SE	MG/KG	CHROMIUM, TOTAL	8.300	8.300	8.0300	-0.2700			2.1163	2.0832	-0.0331			5	0.556	0.140	TR	0.7770	F	
JEFB008-SE	MG/KG	CHROMIUM, TOTAL	8.030	8.030	8.3000	0.2700	0.0561	0.015147	2.0832	2.1163	0.0331	0.0561	0.001855	4	0.444	-0.140	TR	0.7340	F	
JEFB002-SE	MG/KG	CHROMIUM, TOTAL	6.010	6.010	9.0200	3.0100	0.1743	0.524643	1.7934	2.1994	0.4060	0.1743	0.070769	3	0.333	-0.431	TR	0.6940	F	
JEFB006-SE	MG/KG	CHROMIUM, TOTAL	5.490	5.490	9.1200	3.6300	0.3164	1.148532	1.7029	2.2105	0.5075	0.3164	0.160586	2	0.222	-0.765	TR	0.7120	F	
JEFB001-SE	MG/KG	CHROMIUM, TOTAL	4.810	4.810	9.5900	4.7800	0.6052	2.892856	1.5707	2.2607	0.6900	0.6052	0.417602	1	0.111	-1.221	TR	0.6710	F	
							b =	**4.58**				b =	**0.65**							
		0	8																	
		% Non-detect	0.0			W	0.885				W	0.869								
		Range Raw	4.81	9.59		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		7.5463					1.9921											
		Std Dev		1.8401					0.2638		0.869		0.885							
		UTL		13.4126					16.9999											
		Outlier Test (raw)		1.1106	None	9.59	7.5463	1.8401	12.4588											
		Outlier Test (log)		1.0180	None															

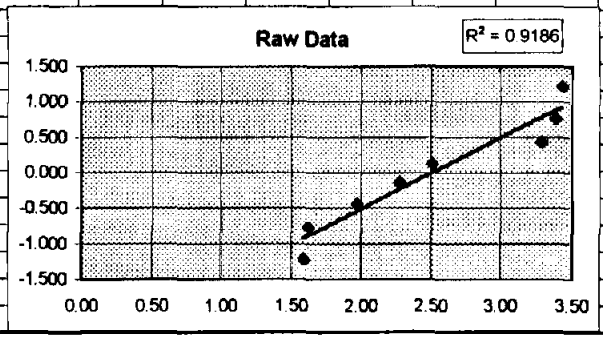


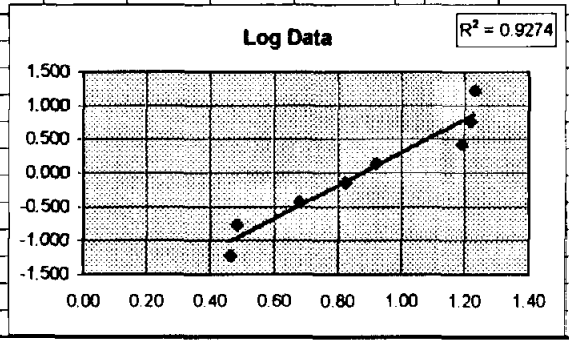


4101205

COBALT

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB008-SE	MG/KG	COBALT	3.430	3.430	1.5900	-1.8400			1.2326	0.4637	-0.7688			8	0.889	1.221	TR	1.1200	F	
JEFB001-SE	MG/KG	COBALT	3.390	3.390	1.6200	-1.7700			1.2208	0.4824	-0.7384			7	0.778	0.765	TR	1.0200	F	
JEFB005-SE	MG/KG	COBALT	3.290	3.290	1.9700	-1.3200			1.1909	0.6780	-0.5129			6	0.667	0.431	TR	1.1900	F	
JEFB007-SE	MG/KG	COBALT	2.510	2.510	2.2800	-0.2300			0.9203	0.8242	-0.0961			5	0.556	0.140	TR	1.1800	F	
JEFB003-SE	MG/KG	COBALT	2.280	2.280	2.5100	0.2300	0.0561	0.012903	0.8242	0.9203	0.0961	0.0561	0.005392	4	0.444	-0.140	TR	1.2000	F	
JEFB004-SE	MG/KG	COBALT	1.970	1.970	3.2900	1.3200	0.1743	0.230076	0.6780	1.1909	0.5129	0.1743	0.089390	3	0.333	-0.431	TR	1.1300	F	
JEFB006-SE	MG/KG	COBALT	1.620	1.620	3.3900	1.7700	0.3164	0.560028	0.4824	1.2208	0.7384	0.3164	0.233631	2	0.222	-0.765	TR	1.0900	F	
JEFB002-SE	MG/KG	COBALT	1.590	1.590	3.4300	1.8400	0.6052	1.113568	0.4637	1.2326	0.7688	0.6052	0.465294	1	0.111	-1.221	TR	1.0600	F	
							b =	**1.92**				**b =**	**0.79**							
		0	8																	
		% Non-detect	0.0			W	0.872				W	0.882								
		Range Raw	1.59	3.43		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		2.51					0.8766											
		Std Dev		0.7757					0.3194		0.882		0.872							
		UTL		4.983					6.6506											
		Outlier Test (raw)		1.1860	None	3.43	2.51	0.7757	4.5654											
		Outlier Test (log)		1.1146	None															

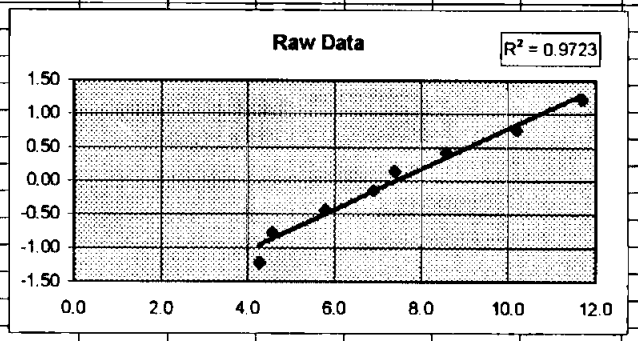


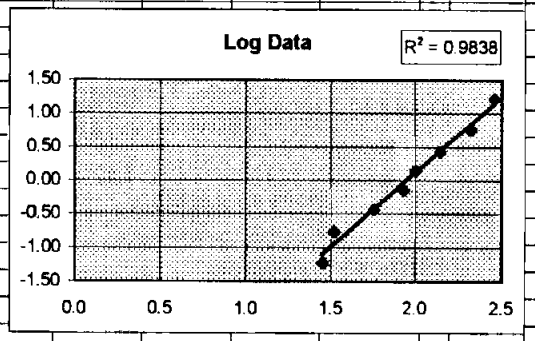


4101206

COPPER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB003-SE	MG/KG	COPPER	11.7000	11.700	4.2800	-7.4200			2.4596	1.4540	-1.0056			8	0.889	1.221	=	0.2000		
JEFB005-SE	MG/KG	COPPER	10.2000	10.200	4.5700	-5.6300			2.3224	1.5195	-0.8029			7	0.778	0.765	=	0.1980		
JEFB002-SE	MG/KG	COPPER	8.5800	8.580	5.7800	-2.8000			2.1494	1.7544	-0.3950			6	0.667	0.431	=	0.1770		
JEFB007-SE	MG/KG	COPPER	7.4000	7.400	6.9100	-0.4900			2.0015	1.9330	-0.0685			5	0.556	0.140	TR	0.1970	F	
JEFB008-SE	MG/KG	COPPER	6.9100	6.910	7.4000	0.4900	0.0561	0.027489	1.9330	2.0015	0.0685	0.0561	0.003843	4	0.444	-0.140	TR	0.1870	F	
JEFB001-SE	MG/KG	COPPER	5.7800	5.780	8.5800	2.8000	0.1743	0.488040	1.7544	2.1494	0.3950	0.1743	0.068854	3	0.333	-0.431	TR	0.1710	F	
JEFB006-SE	MG/KG	COPPER	4.5700	4.570	10.2000	5.6300	0.3164	1.781332	1.5195	2.3224	0.8029	0.3164	0.254029	2	0.222	-0.765	TR	0.1810	F	
JEFB004-SE	MG/KG	COPPER	4.2800	4.280	11.7000	7.4200	0.6052	4.490584	1.4540	2.4596	1.0056	0.6052	0.608611	1	0.111	-1.221	TR	0.1890	F	
							b =	**6.79**				**b =**	**0.94**							
		0	8																	
		% Non-detect	0.0			W	0.953				W	0.961								
		Range Raw	4.28	11.7		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		7.4275					1.9492											
		Std Dev		2.6274					0.3607		0.961		0.953							
		UTL		15.8038					22.1782											
		Outlier Test (raw)		1.6261	None	11.7	7.4275	2.6274	14.5009											
		Outlier Test (log)		1.4150	None															

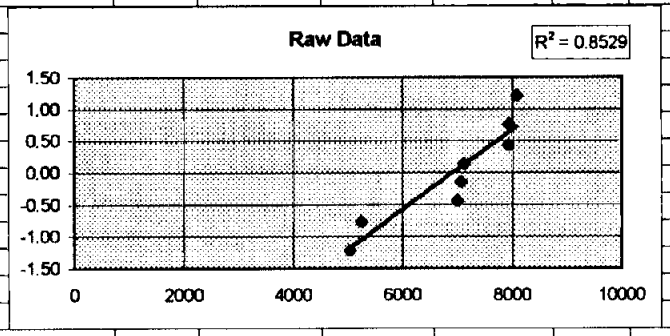


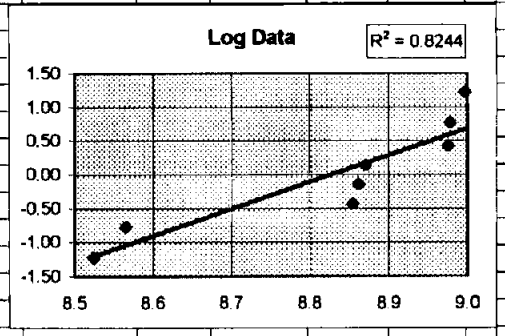


4101207

IRON

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PVQ	DET	LQ	VQ
JEFB003-SE	MG/KG	IRON	8080.0	8080.0	5030.0	-3050.0			9.00	8.52	-0.4740			8	0.889	1.221	=	0.8290		
JEFB001-SE	MG/KG	IRON	7930.0	7930.0	5240.0	-2690.0			8.98	8.56	-0.4143			7	0.778	0.765	=	0.7070		
JEFB007-SE	MG/KG	IRON	7910.0	7910.0	7010.0	-900.0			8.98	8.86	-0.1208			6	0.667	0.431	=	0.8160		
JEFB002-SE	MG/KG	IRON	7120.0	7120.0	7060.0	-60.0			8.87	8.86	-0.0085			5	0.556	0.140	=	0.7320		
JEFB005-SE	MG/KG	IRON	7060.0	7060.0	7120.0	60.0	0.0561	3.37	8.86	8.87	0.0085	0.0561	0.0005	4	0.444	-0.140	=	0.8190		
JEFB008-SE	MG/KG	IRON	7010.0	7010.0	7910.0	900.0	0.1743	156.87	8.86	8.98	0.1208	0.1743	0.0211	3	0.333	-0.431	=	0.7740		
JEFB006-SE	MG/KG	IRON	5240.0	5240.0	7930.0	2690.0	0.3164	851.12	8.56	8.98	0.4143	0.3164	0.1311	2	0.222	-0.765	=	0.7510		
JEFB004-SE	MG/KG	IRON	5030.0	5030.0	8080.0	3050.0	0.6052	1845.86	8.52	9.00	0.4740	0.6052	0.2868	1	0.111	-1.221	=	0.7820		
							b =	**2857**				**b =**	**0.44**							
		0	8																	
		% Non-detect	0.0			W	0.832				W	0.807								
		Range Raw	5030.0	8080.0		W (crit)	0.818				W (crit)	0.818								
							Accept					Reject								
		Mean		6922.5					8.83											
		Std Dev		1183.6958					0.18		0.807		0.832							
		UTL		10696.1222					12306.64											
		Outlier Test (raw)		0.9779	None	8080.0	6922.5	1183.70	9897.57											
		Outlier Test (log)		0.9129	None															

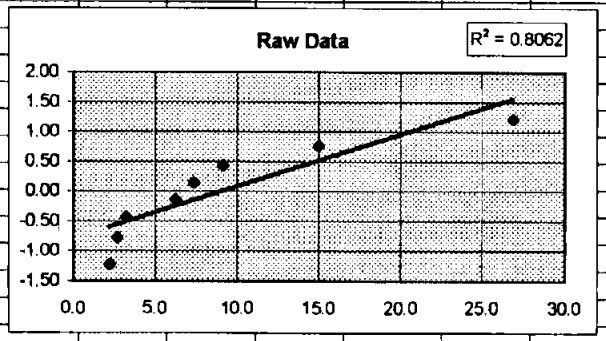


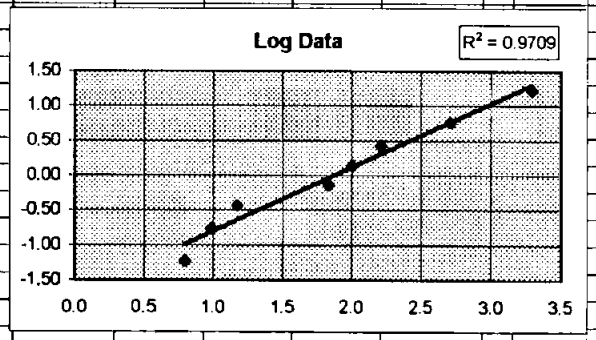


4101208

LEAD

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB003-SE	MG/KG	LEAD	26.900	26.900	2.2100	-24.6900			3.2921	0.7930	-2.4991			8	0.889	1.221	=	0.2000		
JEFB004-SE	MG/KG	LEAD	15.000	15.000	2.6800	-12.3200			2.7081	0.9858	-1.7222			7	0.778	0.765	=	0.1890		
JEFB005-SE	MG/KG	LEAD	9.120	9.120	3.2300	-5.8900			2.2105	1.1725	-1.0380			6	0.667	0.431	=	0.1980		
JEFB002-SE	MG/KG	LEAD	7.400	7.400	6.2600	-1.1400			2.0015	1.8342	-0.1673			5	0.556	0.140	=	0.1770		
JEFB001-SE	MG/KG	LEAD	6.260	6.260	7.4000	1.1400	0.0561	0.063954	1.8342	2.0015	0.1673	0.0561	0.009386	4	0.444	-0.140	=	0.1710		
JEFB008-SE	MG/KG	LEAD	3.230	3.230	9.1200	5.8900	0.1743	1.026627	1.1725	2.2105	1.0380	0.1743	0.180921	3	0.333	-0.431	=	0.1870		
JEFB007-SE	MG/KG	LEAD	2.680	2.680	15.0000	12.3200	0.3164	3.898048	0.9858	2.7081	1.7222	0.3164	0.544915	2	0.222	-0.765	=	0.1970		
JEFB006-SE	MG/KG	LEAD	2.210	2.210	26.9000	24.6900	0.6052	14.942388	0.7930	3.2921	2.4991	0.6052	1.512476	1	0.111	-1.221	=	0.1810		
							b =	**19.93**				**b =**	**2.25**							
		0	8																	
		% Non-detect	0.0			W	0.818				W	0.956								
		Range Raw	2.21	26.9		W (crit)	0.818				W (crit)	0.818								
							Reject					Accept								
		Mean		9.1					1.8747											
		Std Dev		8.3302					0.8691		0.956		0.818							
		UTL		35.6568					104.1039											
		Outlier Test (raw)		2.1368	Outlier!	26.9	9.1	8.3302	37.397											
		Outlier Test (log)		1.6309	None															

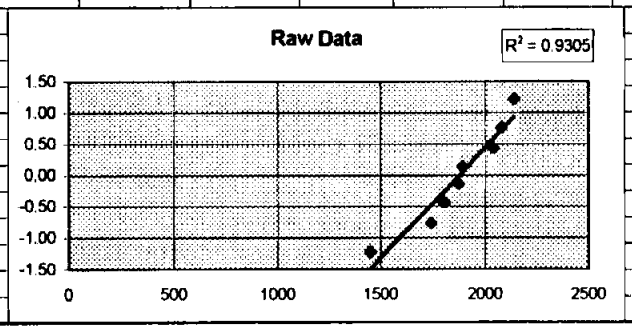


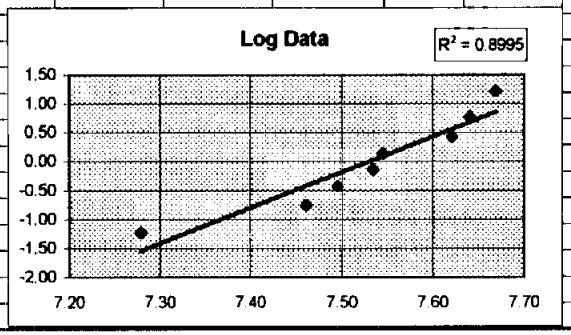


4101203

MAGNESIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	DET	LQ	VQ
JEFB003-SE	MG/KG	MAGNESIUM	2140.0	2140.0	1450.0	-690.0			7.6686	7.2793	-0.3892			8	0.889	1.221	=	7.90		
JEFB007-SE	MG/KG	MAGNESIUM	2080.0	2080.0	1740.0	-340.0			7.6401	7.4616	-0.1785			7	0.778	0.765	=	7.78		
JEFB008-SE	MG/KG	MAGNESIUM	2040.0	2040.0	1800.0	-240.0			7.6207	7.4955	-0.1252			6	0.667	0.431	=	7.38		
JEFB004-SE	MG/KG	MAGNESIUM	1890.0	1890.0	1870.0	-20.0			7.5443	7.5337	-0.0106			5	0.556	0.140	=	7.45		
JEFB006-SE	MG/KG	MAGNESIUM	1870.0	1870.0	1890.0	20.0	0.0561	1.122	7.5337	7.5443	0.0106	0.0561	0.000597	4	0.444	-0.140	=	7.16		
JEFB002-SE	MG/KG	MAGNESIUM	1800.0	1800.0	2040.0	240.0	0.1743	41.832	7.4955	7.6207	0.1252	0.1743	0.021816	3	0.333	-0.431	=	6.98		
JEFB001-SE	MG/KG	MAGNESIUM	1740.0	1740.0	2080.0	340.0	0.3164	107.576	7.4616	7.6401	0.1785	0.3164	0.056472	2	0.222	-0.765	=	6.74		
JEFB005-SE	MG/KG	MAGNESIUM	1450.0	1450.0	2140.0	690.0	0.6052	417.588	7.2793	7.6686	0.3892	0.6052	0.235569	1	0.111	-1.221	=	7.81		
							b =	**568.12**				**b =**	**0.31**							
		0	8																	
		% Non-detect	0.0			W	0.938				W	0.912								
		Range Raw	1450.0	2140.0		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		1876.25					7.5305											
		Std Dev		221.7423					0.1245		0.912		0.938							
		UTL		2583.1644					2772.0479											
		Outlier Test (raw)		1.1894	None	2140.0	1876.25	221.7423	2393.9513											
		Outlier Test (log)		1.1092	None															

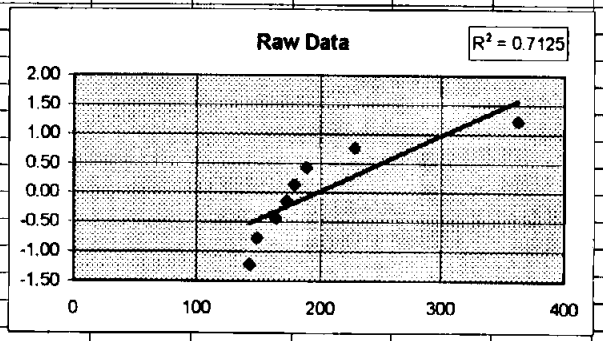


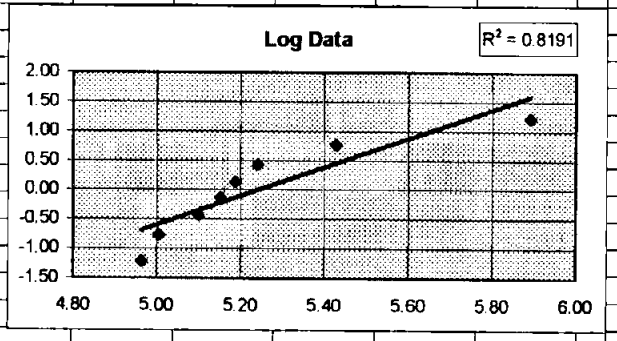


41011210

MANGANESE

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	DET	LQ
JEFB001-SE	MG/KG	MANGANESE	362.0	362.0	143.0	-219.0			5.8916	4.9628	-0.9288			8	0.889	1.221	=	0.1460	
JEFB004-SE	MG/KG	MANGANESE	228.0	228.0	149.0	-79.0			5.4293	5.0039	-0.4254			7	0.778	0.765	=	0.1620	
JEFB006-SE	MG/KG	MANGANESE	189.0	189.0	164.0	-25.0			5.2417	5.0999	-0.1419			6	0.667	0.431	=	0.1550	
JEFB008-SE	MG/KG	MANGANESE	179.0	179.0	173.0	-6.0			5.1874	5.1533	-0.0341			5	0.556	0.140	=	0.1600	
JEFB005-SE	MG/KG	MANGANESE	173.0	173.0	179.0	6.0	0.0561	0.336600	5.1533	5.1874	0.0341	0.0561	0.001913	4	0.444	-0.140	=	0.1690	
JEFB003-SE	MG/KG	MANGANESE	164.0	164.0	189.0	25.0	0.1743	4.357500	5.0999	5.2417	0.1419	0.1743	0.024730	3	0.333	-0.431	=	0.1710	
JEFB007-SE	MG/KG	MANGANESE	149.0	149.0	228.0	79.0	0.3164	24.995600	5.0039	5.4293	0.4254	0.3164	0.134596	2	0.222	-0.765	=	0.1690	
JEFB002-SE	MG/KG	MANGANESE	143.0	143.0	362.0	219.0	0.6052	132.538800	4.9628	5.8916	0.9288	0.6052	0.562110	1	0.111	-1.221	=	0.1520	
							b =	**162.23**				b =	**0.72**						
		0	8																
		% Non-detect	0.0			W	0.743				W	0.840							
		Range Raw	143.0	362.0		W (crit)	0.818				W (crit)	0.818							
							Reject					Accept							
		Mean		198.375					5.2463										
		Std Dev		71.1576					0.2982		0.840		0.743						
		UTL		425.2256					491.3013										
		Outlier Test (raw)		2.2995	Outlier!	362.0	198.375	71.1576	345.7539										
		Outlier Test (log)		2.1640	Outlier!														





4101211

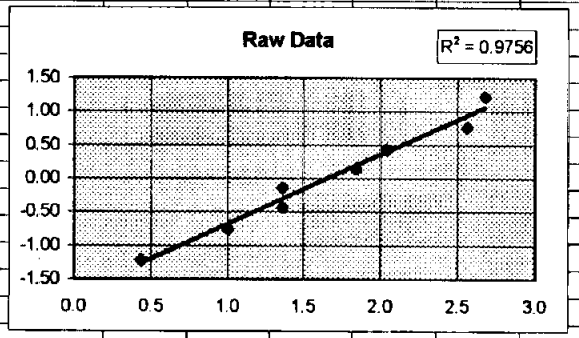
MERCURY

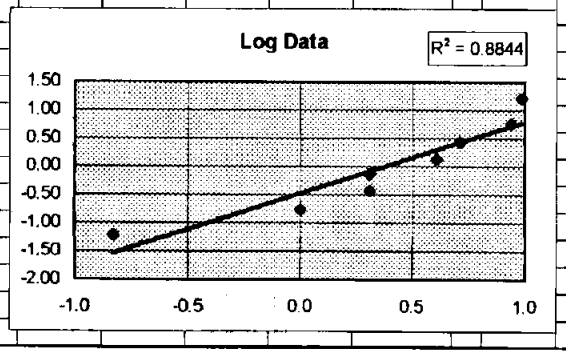
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB001	N1	JEFB001-SE	SW7471	MG/KG	HG	MERCURY	0.0360	0.0360		TR	0.0350	F	
JEFB003	N1	JEFB003-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0205		ND	0.0410	U	
JEFB005	N1	JEFB005-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0205		ND	0.0410	U	
JEFB007	N1	JEFB007-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0205		ND	0.0410	U	
JEFB004	N1	JEFB004-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0195		ND	0.0390	U	
JEFB008	N1	JEFB008-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0195		ND	0.0390	U	
JEFB006	N1	JEFB006-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0190		ND	0.0380	U	
JEFB002	N1	JEFB002-SE	SW7471	MG/KG	HG	MERCURY	0.0000	0.0185		ND	0.0370	U	
						7	8						
						% Non-detect	87.5%						
						Range Raw	0.0185	0.0360					
						Range Log	0.0000	0.0000					
						Mean		0.02175					
						Std Dev		0.00581					

4101212

MOLYBDENUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB002-SE	MG/KG	MOLYBDENUM	2.680	2.680	0.4355	-2.2445			0.9858	-0.8313	-1.8171			8	0.889	1.221	TR	0.7700	F	
JEFB007-SE	MG/KG	MOLYBDENUM	2.560	2.560	1.0000	-1.5600			0.9400	0.0000	-0.9400			7	0.778	0.765	TR	0.8580	F	
JEFB004-SE	MG/KG	MOLYBDENUM	2.040	2.040	1.3600	-0.6800			0.7129	0.3075	-0.4055			6	0.667	0.431	TR	0.8220	F	
JEFB005-SE	MG/KG	MOLYBDENUM	1.840	1.840	1.3600	-0.4800			0.6098	0.3075	-0.3023			5	0.556	0.140	TR	0.8620	F	
JEFB001-SE	MG/KG	MOLYBDENUM	1.360	1.360	1.8400	0.4800	0.0561	0.026928	0.3075	0.6098	0.3023	0.0561	0.016958	4	0.444	-0.140	TR	0.7440	F	
JEFB008-SE	MG/KG	MOLYBDENUM	1.360	1.360	2.0400	0.6800	0.1743	0.118524	0.3075	0.7129	0.4055	0.1743	0.070673	3	0.333	-0.431	TR	0.8140	F	
JEFB006-SE	MG/KG	MOLYBDENUM	1.000	1.000	2.5600	1.5600	0.3164	0.493584	0.0000	0.9400	0.9400	0.3164	0.297418	2	0.222	-0.765	TR	0.7900	F	
JEFB003-SE	MG/KG	MOLYBDENUM	0.000	0.436	2.6800	2.2445	0.6052	1.358371	-0.8313	0.9858	1.8171	0.6052	1.099695	1	0.111	-1.221	ND	0.8710	U	
							b =	**2.00**				**b =**	**1.48**							
		1	8																	
		% Non-detect	0.1			W	0.963				W	0.894								
		Range Raw	0.4355	2.68		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		1.6594					0.379											
		Std Dev		0.7692					0.5936		0.894		0.963							
		UTL		4.1118					9.6925											
		Outlier Test (raw)		1.3267	None	2.68	1.6594	0.7692	4.8168											
		Outlier Test (log)		1.0223	None															

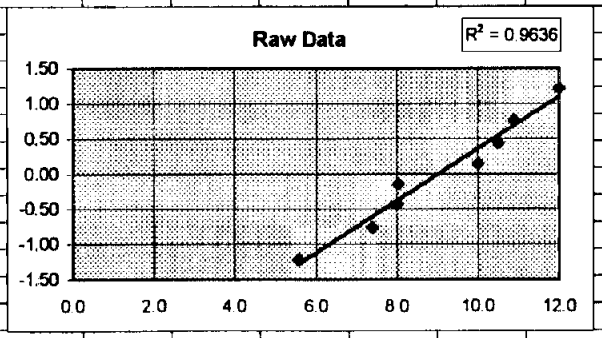


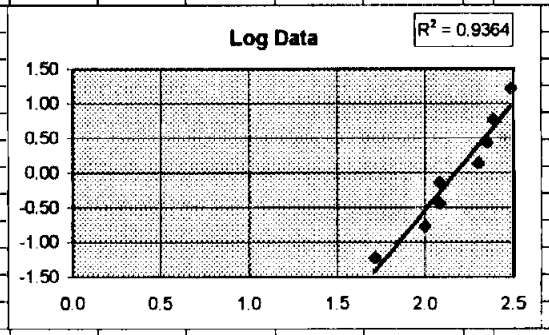


4101213

NICKEL

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB007-SE	MG/KG	NICKEL	12.00	12.00	5.550	-6.450			2.4849	1.7138	-0.7711			8	0.889	1.221	=	1.1300		
JEFB003-SE	MG/KG	NICKEL	10.90	10.90	7.390	-3.510			2.3888	2.0001	-0.3886			7	0.778	0.765	=	1.1400		
JEFB008-SE	MG/KG	NICKEL	10.50	10.50	8.010	-2.490			2.3514	2.0807	-0.2707			6	0.667	0.431	TR	2.6700	F	
JEFB005-SE	MG/KG	NICKEL	10.00	10.00	8.030	-1.970			2.3026	2.0832	-0.2194			5	0.556	0.140	=	1.1300		
JEFB001-SE	MG/KG	NICKEL	8.03	8.03	10.000	1.970	0.0561	0.110517	2.0832	2.3026	0.2194	0.0561	0.012308	4	0.444	-0.140	=	0.9760		
JEFB002-SE	MG/KG	NICKEL	8.01	8.01	10.500	2.490	0.1743	0.434007	2.0807	2.3514	0.2707	0.1743	0.047180	3	0.333	-0.431	=	1.0100		
JEFB006-SE	MG/KG	NICKEL	7.39	7.39	10.900	3.510	0.3164	1.110564	2.0001	2.3888	0.3886	0.3164	0.122964	2	0.222	-0.765	=	1.0400		
JEFB004-SE	MG/KG	NICKEL	5.55	5.55	12.000	6.450	0.6052	3.903540	1.7138	2.4849	0.7711	0.6052	0.466675	1	0.111	-1.221	=	1.0800		
							b =	**5.56**				**b =**	**0.65**							
		0	8																	
		% Non-detect	0.0			W	0.958				W	0.937								
		Range Raw	5.55	12.0		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		9.0475					2.1757											
		Std Dev		2.1467					0.2535		0.937		0.958							
		UTL		15.8911					19.7616											
		Outlier Test (raw)		1.3754	None	12.0	9.0475	2.1467	14.6605											
		Outlier Test (log)		1.2200	None															

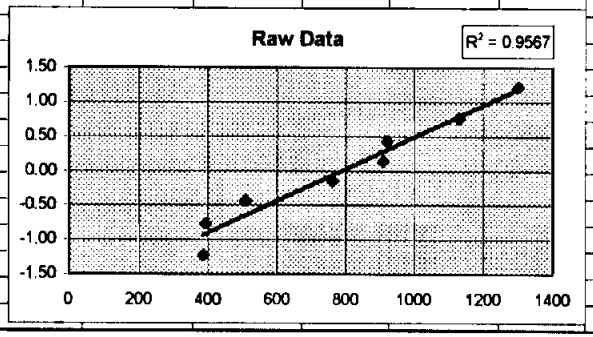


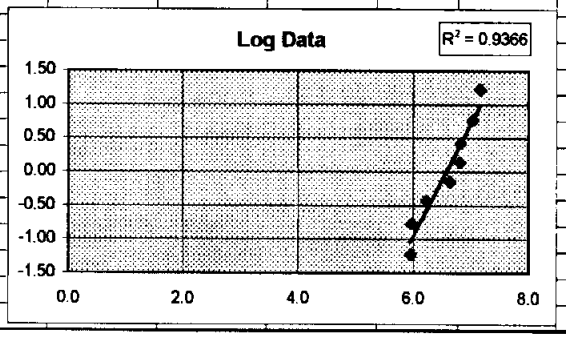


4101214

POTASSIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB003-SE	MG/KG	POTASSIUM	1300.0	1300.0	386.0	-914.0			7.1701	5.9558	-1.2143			8	0.889	1.221	=	74.6		
JEFB005-SE	MG/KG	POTASSIUM	1130.0	1130.0	392.0	-738.0			7.0300	5.9713	-1.0587			7	0.778	0.765	=	73.8		
JEFB007-SE	MG/KG	POTASSIUM	921.0	921.0	508.0	-413.0			6.8255	6.2305	-0.5950			6	0.667	0.431	=	73.5		
JEFB008-SE	MG/KG	POTASSIUM	910.0	910.0	760.0	-150.0			6.8134	6.6333	-0.1801			5	0.556	0.140	=	69.7		
JEFB002-SE	MG/KG	POTASSIUM	760.0	760.0	910.0	150.0	0.0561	8.4150	6.6333	6.8134	0.1801	0.0561	0.010105	4	0.444	-0.140	=	66.0		
JEFB006-SE	MG/KG	POTASSIUM	508.0	508.0	921.0	413.0	0.1743	71.9859	6.2305	6.8255	0.5950	0.1743	0.103705	3	0.333	-0.431	TR	67.7	F	
JEFB004-SE	MG/KG	POTASSIUM	392.0	392.0	1130.0	738.0	0.3164	233.5032	5.9713	7.0300	1.0587	0.3164	0.334976	2	0.222	-0.765	TR	70.4	F	
JEFB001-SE	MG/KG	POTASSIUM	386.0	386.0	1300.0	914.0	0.6052	553.1528	5.9558	7.1701	1.2143	0.6052	0.734884	1	0.111	-1.221	TR	63.7	F	
							b =	**867.06**				**b =**	**1.18**							
		0	8																	
		% Non-detect	0.0			W	0.929				W	0.904								
		Range Raw	386.0	1300.0		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		788.375					6.5787											
		Std Dev		340.0176					0.4707		0.904		0.929							
		UTL		1872.3512					3226.58											
		Outlier Test (raw)		1.5047	None	1300.0	788.375	340.0176	1853.3481											
		Outlier Test (log)		1.2565	None															





4101215

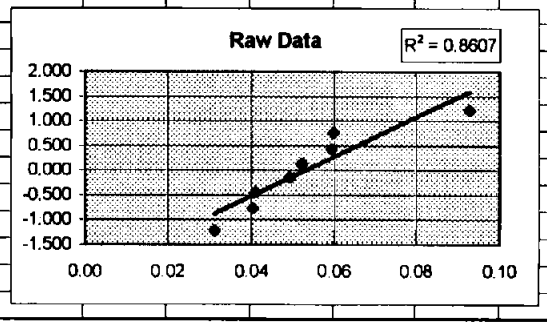
SELENIUM

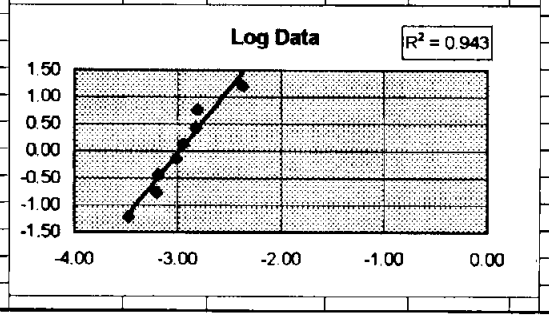
LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB005	N1	JEFB005-SE	SW7740	MG/KG	SE	SELENIUM	0.2140	0.2140		TR	0.1550	F	
JEFB003	N1	JEFB003-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0785		ND	0.1570	U	
JEFB007	N1	JEFB007-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0775		ND	0.1550	U	
JEFB004	N1	JEFB004-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0740		ND	0.1480	U	
JEFB008	N1	JEFB008-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0735		ND	0.1470	U	
JEFB006	N1	JEFB006-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0710		ND	0.1420	U	
JEFB002	N1	JEFB002-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0695		ND	0.1390	U	
JEFB001	N1	JEFB001-SE	SW7740	MG/KG	SE	SELENIUM	0.0000	0.0670		ND	0.1340	U	
						7	8						
						% Non-detect	87.5%						
						Range Raw	0.0670	0.2140					
						Range Log	0.0000	0.0000					
						Mean		0.09063					
						Std Dev		0.05000					

4101216

SILVER

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PQ	DET	LQ	VQ
JEFB003-SE	MG/KG	SILVER	0.0929	0.0929	0.0311	-0.0618			-2.3762	-3.4705	-1.0943			8	0.889	1.221	TR	0.0286	F	
JEFB001-SE	MG/KG	SILVER	0.0598	0.0598	0.0404	-0.0194			-2.8167	-3.2089	-0.3922			7	0.778	0.765	TR	0.0244	F	
JEFB002-SE	MG/KG	SILVER	0.0593	0.0593	0.0410	-0.0183			-2.8251	-3.1942	-0.3690			6	0.667	0.431	TR	0.0253	F	
JEFB008-SE	MG/KG	SILVER	0.0521	0.0521	0.0492	-0.0029			-2.9546	-3.0119	-0.0573			5	0.556	0.140	TR	0.0267	F	
JEFB007-SE	MG/KG	SILVER	0.0492	0.0492	0.0521	0.0029	0.0561	0.000163	-3.0119	-2.9546	0.0573	0.0561	0.003213	4	0.444	-0.140	TR	0.0281	F	
JEFB005-SE	MG/KG	SILVER	0.0410	0.0410	0.0593	0.0183	0.1743	0.003190	-3.1942	-2.8251	0.3690	0.1743	0.064323	3	0.333	-0.431	TR	0.0282	F	
JEFB004-SE	MG/KG	SILVER	0.0404	0.0404	0.0598	0.0194	0.3164	0.006138	-3.2089	-2.8167	0.3922	0.3164	0.124084	2	0.222	-0.765	TR	0.0270	F	
JEFB006-SE	MG/KG	SILVER	0.0311	0.0311	0.0929	0.0618	0.6052	0.037401	-3.4705	-2.3762	1.0943	0.6052	0.662280	1	0.111	-1.221	TR	0.0259	F	
							b =	**0.05**				**b =**	**0.85**							
		0	8																	
		% Non-detect	0.0			W	0.888				W	0.965								
		Range Raw	0.0311	0.0929		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		0.0532					-2.9823											
		Std Dev		0.0188					0.3286		0.965		0.888							
		UTL		0.1132					0.1445											
		Outlier Test (raw)		2.1099	Outlier!	0.0929	0.0532	0.0188	0.0981											
		Outlier Test (log)		1.8445	None															





4101217

SODIUM

LOCATION	QC_TYPE	SAMPLE_ID	TEST_MTHD	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DETECT	LAB_QUAL	VAL_QUAL
JEFB005	N1	JEFB005-SE	SW6010	MG/KG	NA	SODIUM	6.0700	6.0700		TR	2.8200	F	
JEFB007	N1	JEFB007-SE	SW6010	MG/KG	NA	SODIUM	4.0600	4.0600		TR	2.8100	F	
JEFB003	N1	JEFB003-SE	SW6010	MG/KG	NA	SODIUM	0.0000	1.4300		ND	2.8600	U	
JEFB004	N1	JEFB004-SE	SW6010	MG/KG	NA	SODIUM	0.0000	1.3500		ND	2.7000	U	
JEFB008	N1	JEFB008-SE	SW6010	MG/KG	NA	SODIUM	0.0000	1.3350		ND	2.6700	U	
JEFB006	N1	JEFB006-SE	SW6010	MG/KG	NA	SODIUM	0.0000	1.2950		ND	2.5900	U	
JEFB002	N1	JEFB002-SE	SW6010	MG/KG	NA	SODIUM	0.0000	1.2650		ND	2.5300	U	
JEFB001	N1	JEFB001-SE	SW6010	MG/KG	NA	SODIUM	0.0000	1.2200		ND	2.4400	U	
						6	8						
						% Non-detect	75.0%						
						Range Raw	1.2200	6.0700					
						Range Log	0.0000	0.0000					
						Mean		2.25313					
						Std Dev		1.81782					

4101218

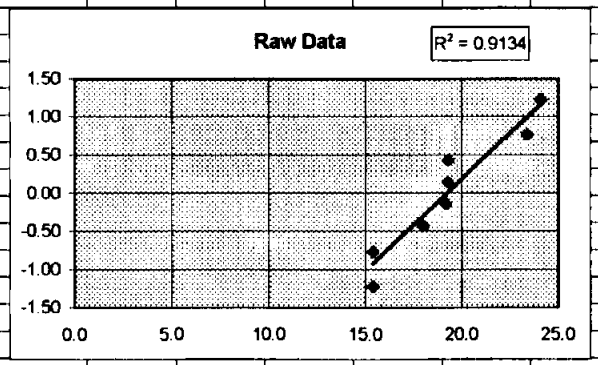
THALLIUM

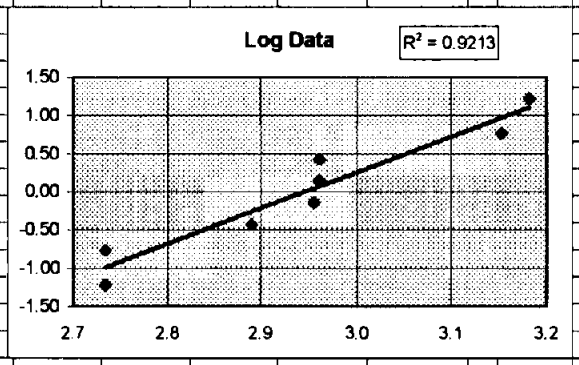
L	LOCATION	QC_TYPE	SAMPLE_ID	TEST_MT	UNITS	ANALYTE	NAME	VALUE	CALC	LN(CALC)	PARVQ	DET	LQ	VQ	PQ
J	JEFB003	N1	JEFB003-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.6600		ND	1.32	U		57.1
J	JEFB005	N1	JEFB005-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.6500		ND	1.30	U		56.5
J	JEFB007	N1	JEFB007-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.6500		ND	1.30	U		56.3
J	JEFB004	N1	JEFB004-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.6200		ND	1.24	U		53.9
J	JEFB008	N1	JEFB008-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.6150		ND	1.23	U		53.4
J	JEFB006	N1	JEFB006-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.5950		ND	1.19	U		51.8
J	JEFB002	N1	JEFB002-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.5800		ND	1.16	U		50.5
J	JEFB001	N1	JEFB001-SE	SW7740	MG/KG	TL	THALLIUM	0.0000	0.5600		ND	1.12	U		48.8
							8	8							
							% Non-detect	100.0%							
							Range Raw	0.5600	0.6600						
							Range Log	0.0000	0.0000						
							Mean		0.61625						
							Std Dev		0.03613						

4101219

VANADIUM

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CAL	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB007-SE	MG/KG	VANADIUM	24.10	24.10	15.40	-8.70			3.1822	2.7344	-0.4478			8	0.889	1.221				
JEFB001-SE	MG/KG	VANADIUM	23.40	23.40	15.40	-8.00			3.1527	2.7344	-0.4184			7	0.778	0.765				
JEFB008-SE	MG/KG	VANADIUM	19.30	19.30	18.00	-1.30			2.9601	2.8904	-0.0697			6	0.667	0.431				
JEFB005-SE	MG/KG	VANADIUM	19.30	19.30	19.20	-0.10			2.9601	2.9549	-0.0052			5	0.556	0.140				
JEFB006-SE	MG/KG	VANADIUM	19.20	19.20	19.30	0.10	0.0561	0.005610	2.9549	2.9601	0.0052	0.0561	0.000291	4	0.444	-0.140				
JEFB003-SE	MG/KG	VANADIUM	18.00	18.00	19.30	1.30	0.1743	0.226590	2.8904	2.9601	0.0697	0.1743	0.012155	3	0.333	-0.431				
JEFB002-SE	MG/KG	VANADIUM	15.40	15.40	23.40	8.00	0.3164	2.531200	2.7344	3.1527	0.4184	0.3164	0.132372	2	0.222	-0.765				
JEFB004-SE	MG/KG	VANADIUM	15.40	15.40	24.10	8.70	0.6052	5.265240	2.7344	3.1822	0.4478	0.6052	0.271035	1	0.111	-1.221				
							b =	**8.03**				b =	**0.42**							
		0	8																	
		% Non-detect	0.0			W	0.896				W	0.902								
		Range Raw	15.4	24.1		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		19.2625					2.9461											
		Std Dev		3.2062					0.1655		0.902		0.896							
		UTL		29.4839					32.2557											
		Outlier Test (raw)		1.5088	None	24.1	19.2625	3.2062	26.5429											
		Outlier Test (log)		1.4266	None															

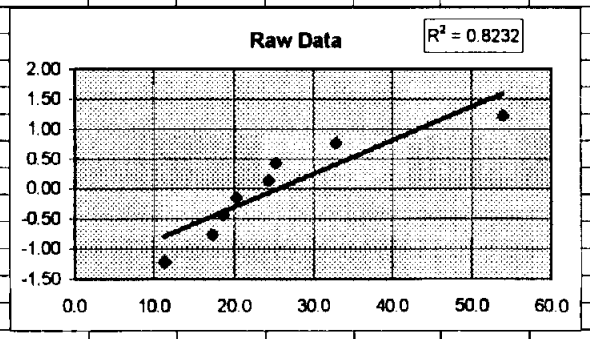


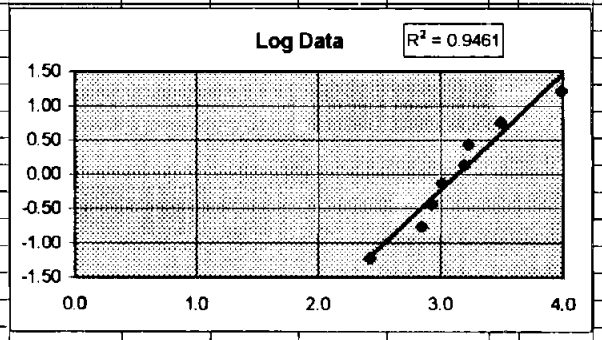


4101220

ZINC

SAMPLE_ID	UNITS	NAME	VALUE	CALC	CALC (Rev)	CALC (Rev) - CALC	$a_{(n-i+1)}$	b_i	LN(CALC)	LN CALC (Rev)	LN CALC (Rev) - LN CALC	$a_{(n-i+1)}$	b_i	R	i/(n+1)	mi	PARVQ	DET	LQ	VQ
JEFB003-SE	MG/KG	ZINC	53.90	53.90	11.30	-42.60			3.9871	2.4248	-1.5623			8	0.889	1.221	=	0.5490		
JEFB005-SE	MG/KG	ZINC	32.80	32.80	17.30	-15.50			3.4904	2.8507	-0.6397			7	0.778	0.765	=	0.4760		
JEFB001-SE	MG/KG	ZINC	25.20	25.20	18.70	-6.50			3.2268	2.9285	-0.2983			6	0.667	0.431	=	0.5510		
JEFB002-SE	MG/KG	ZINC	24.30	24.30	20.30	-4.00			3.1905	3.0106	-0.1799			5	0.556	0.140	=	0.5210		
JEFB007-SE	MG/KG	ZINC	20.30	20.30	24.30	4.00	0.0561	0.224400	3.0106	3.1905	0.1799	0.0561	0.010090	4	0.444	-0.140	=	0.5050		
JEFB008-SE	MG/KG	ZINC	18.70	18.70	25.20	6.50	0.1743	1.132950	2.9285	3.2268	0.2983	0.1743	0.051997	3	0.333	-0.431	=	0.5570		
JEFB004-SE	MG/KG	ZINC	17.30	17.30	32.80	15.50	0.3164	4.904200	2.8507	3.4904	0.6397	0.3164	0.202408	2	0.222	-0.765	=	0.4920		
JEFB006-SE	MG/KG	ZINC	11.30	11.30	53.90	42.60	0.6052	25.781520	2.4248	3.9871	1.5623	0.6052	0.945521	1	0.111	-1.221	=	0.5260		
							b =	**32.04**				**b =**	**1.21**							
		0	8																	
		% Non-detect	0.0			W	0.853				W	0.971								
		Range Raw	11.3	53.9		W (crit)	0.818				W (crit)	0.818								
							Accept					Accept								
		Mean		25.475					3.1387											
		Std Dev		13.1123					0.464		0.971		0.853							
		UTL		67.2772					101.2882											
		Outlier Test (raw)		2.1678	Outlier!	53.9	25.475	13.1123	58.6367											
		Outlier Test (log)		1.8285	None															





4101221

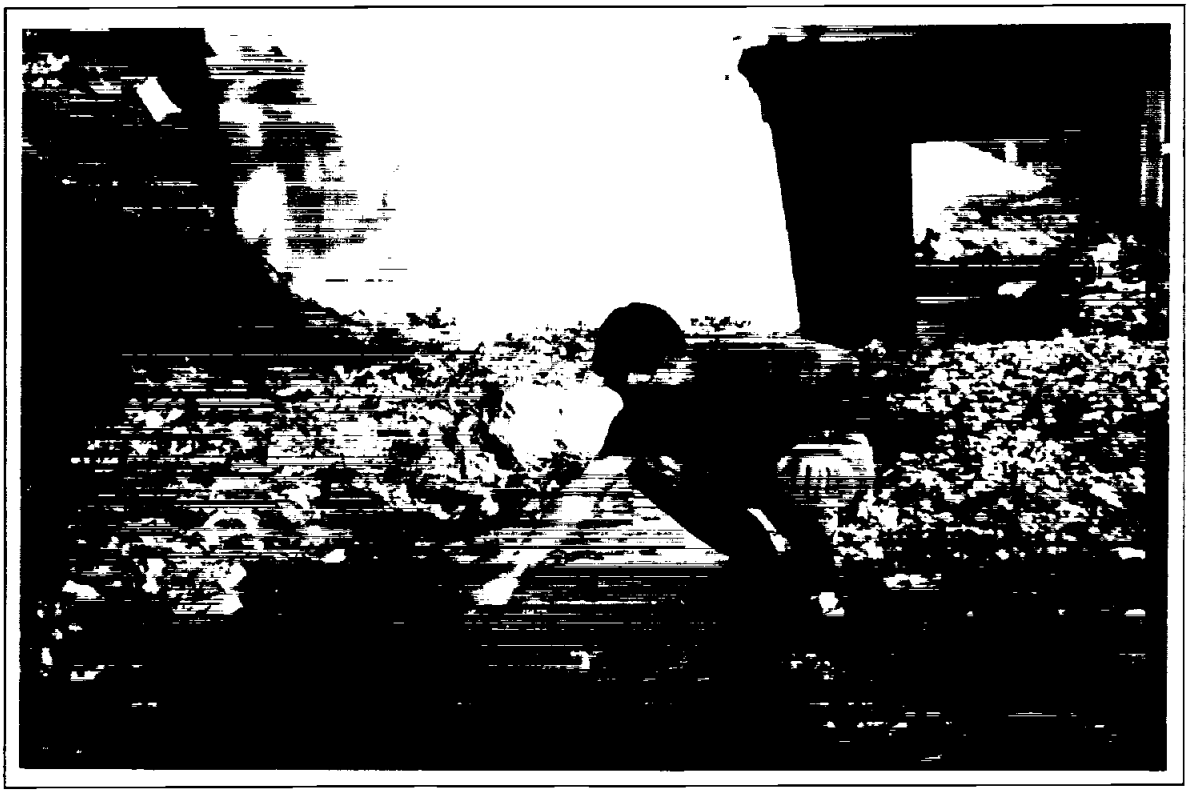
4101222

TAB

Appendix G

4101223

Collecting sediment sample at location JEFB003. (12:35, 11/20/96)



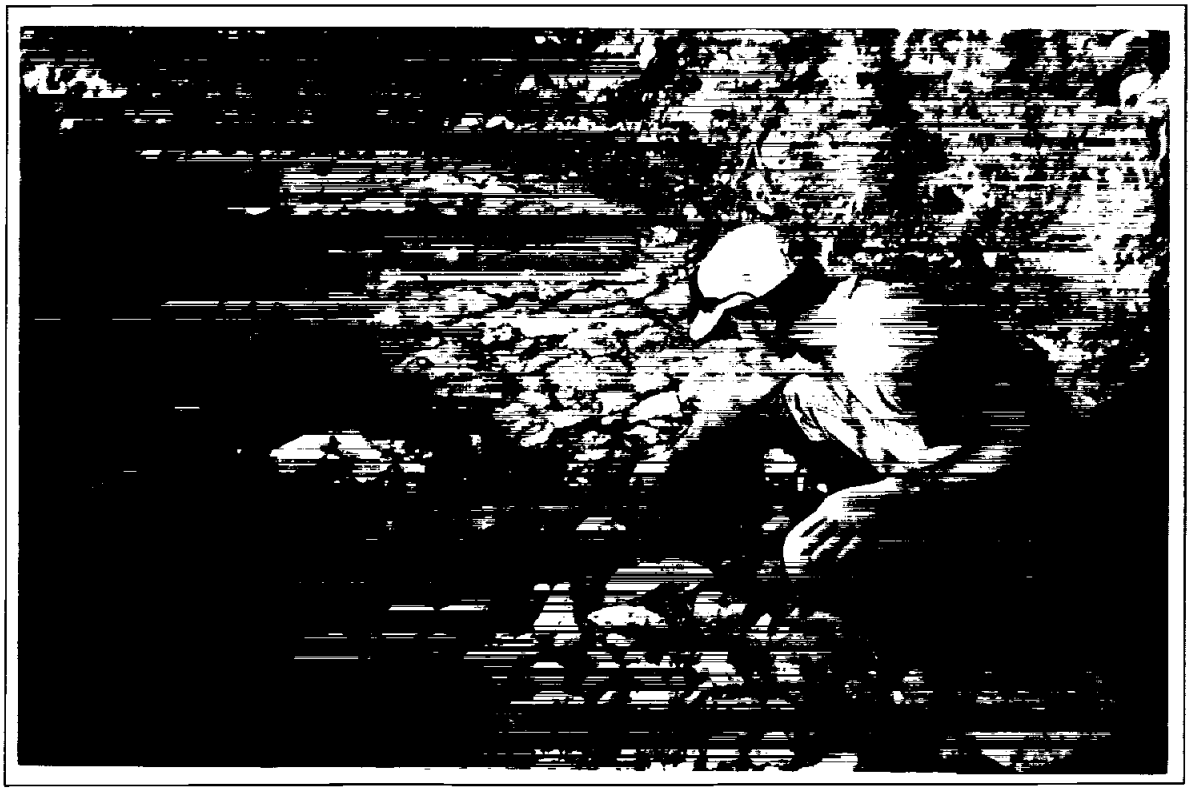
Collecting water sample at location JEFB004, looking northeast, upstream. (13:30, 11/20/96)

4101224

Collecting surface water sample at location JEFB005, looking north. (14:15, 11/20/96)

Collecting sediment sample at location JEFB006, looking north. (15:05, 11/20/96)

Collecting surface water sample at location JEFB006. (15:05, 11/20/96)



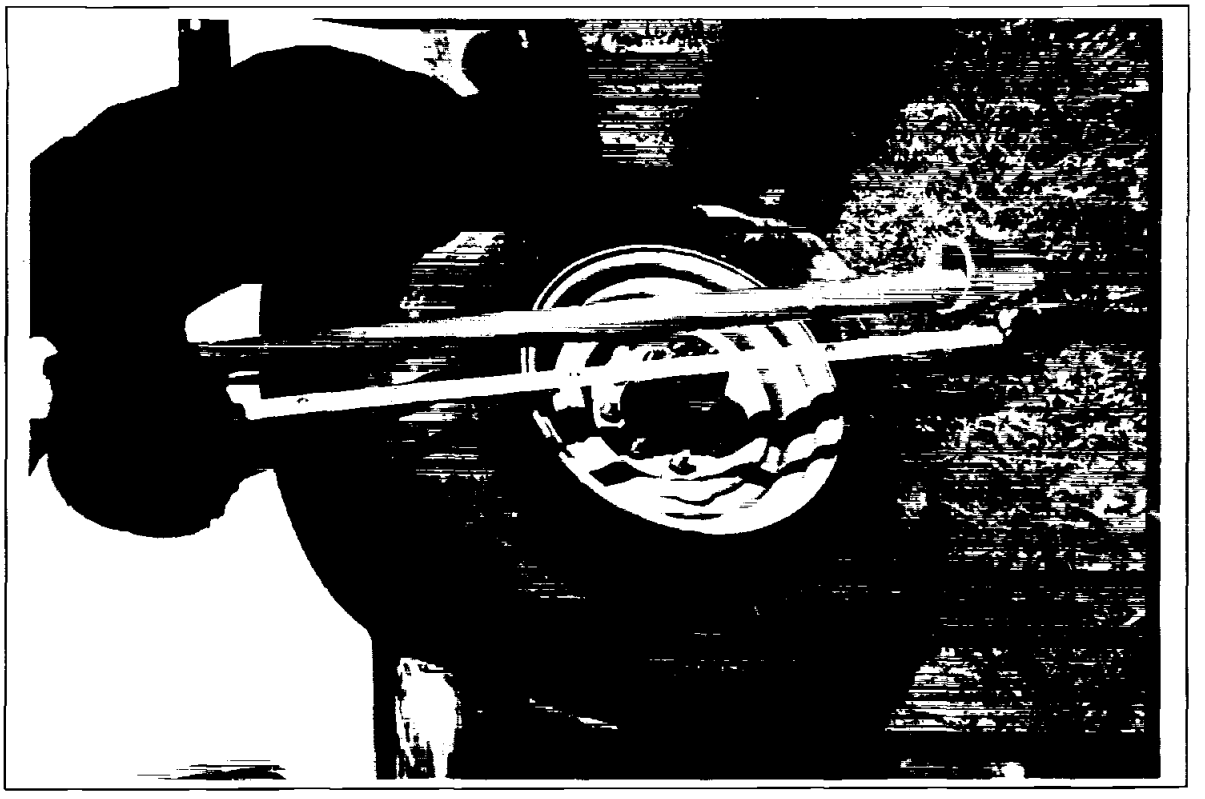
Collecting surface water sampling at location JEFB008. (16:10, 11/20/96)

4101226

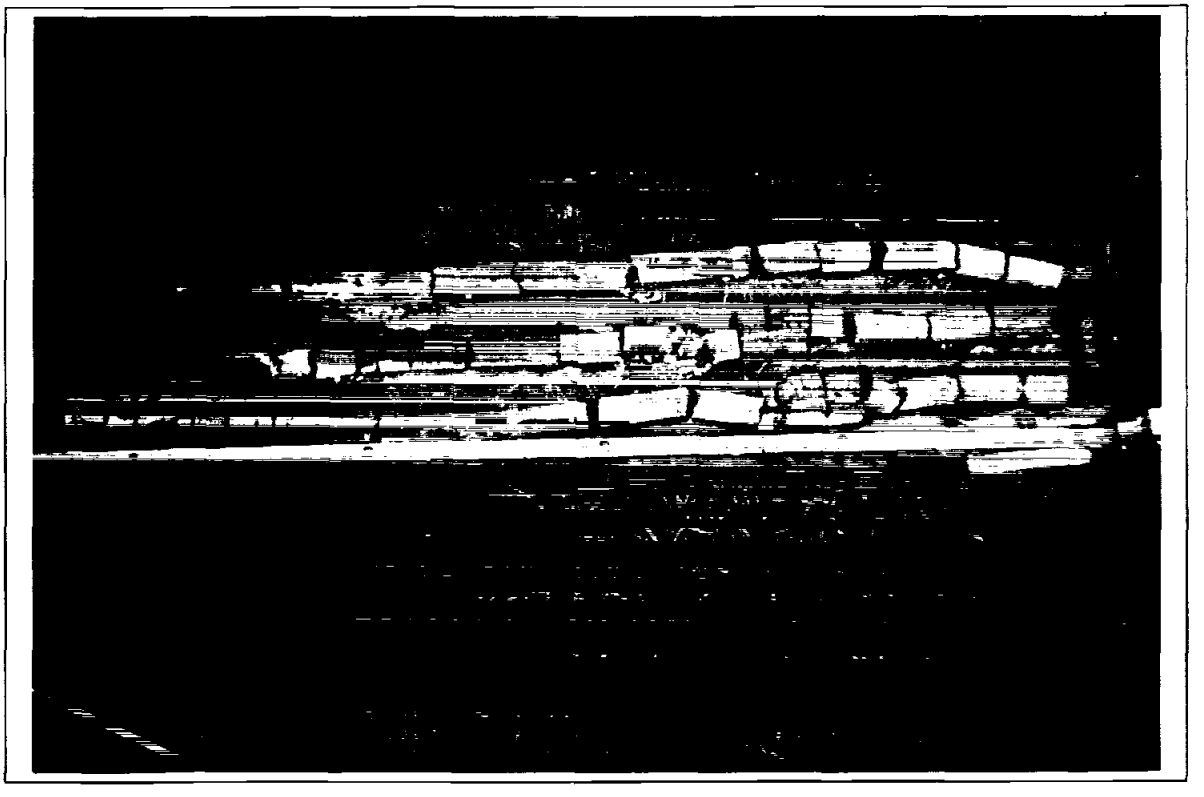
Direct drive probe BJETA510 using the 4-foot by 2-inch sampler in the Wherry Housing Area (09:06, 11/10/96)

Using the 2-inch diameter sampler at BJETA505. (14:50, 11/08/96)

4101227

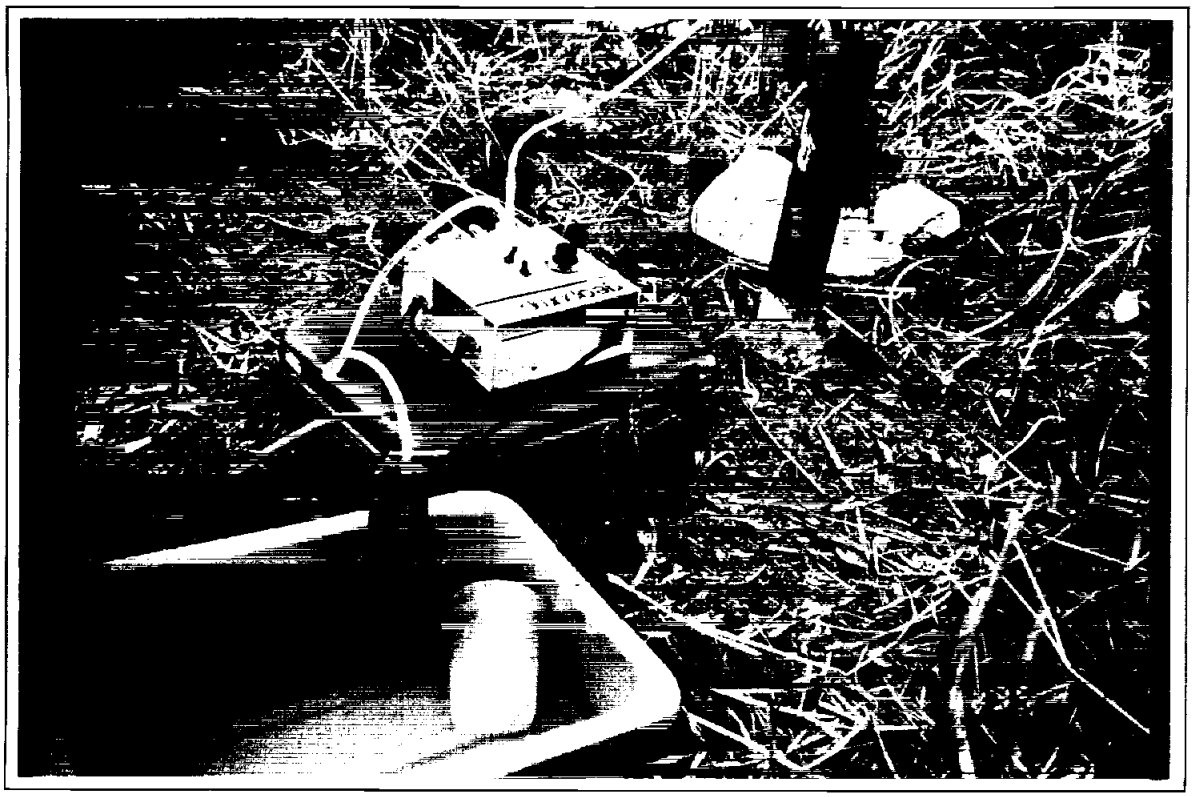


Sample collected using the 4-foot by 2-inch sampler at BJETA504 from 0 to 4 feet below ground surface. (14:02, 11/08/96)

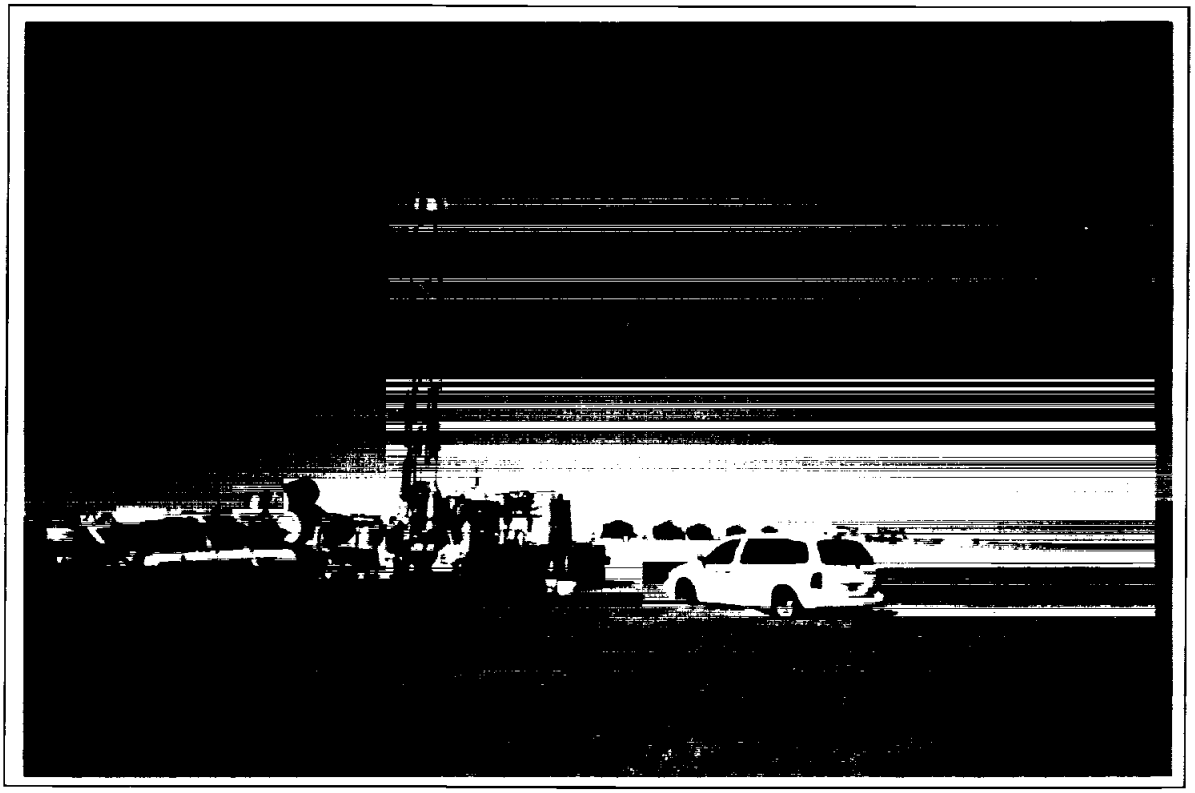


Soil core collected from BJETA517 using the 4-foot sampler illustrating Horizon B (10:42, 11/15/96)

4101228

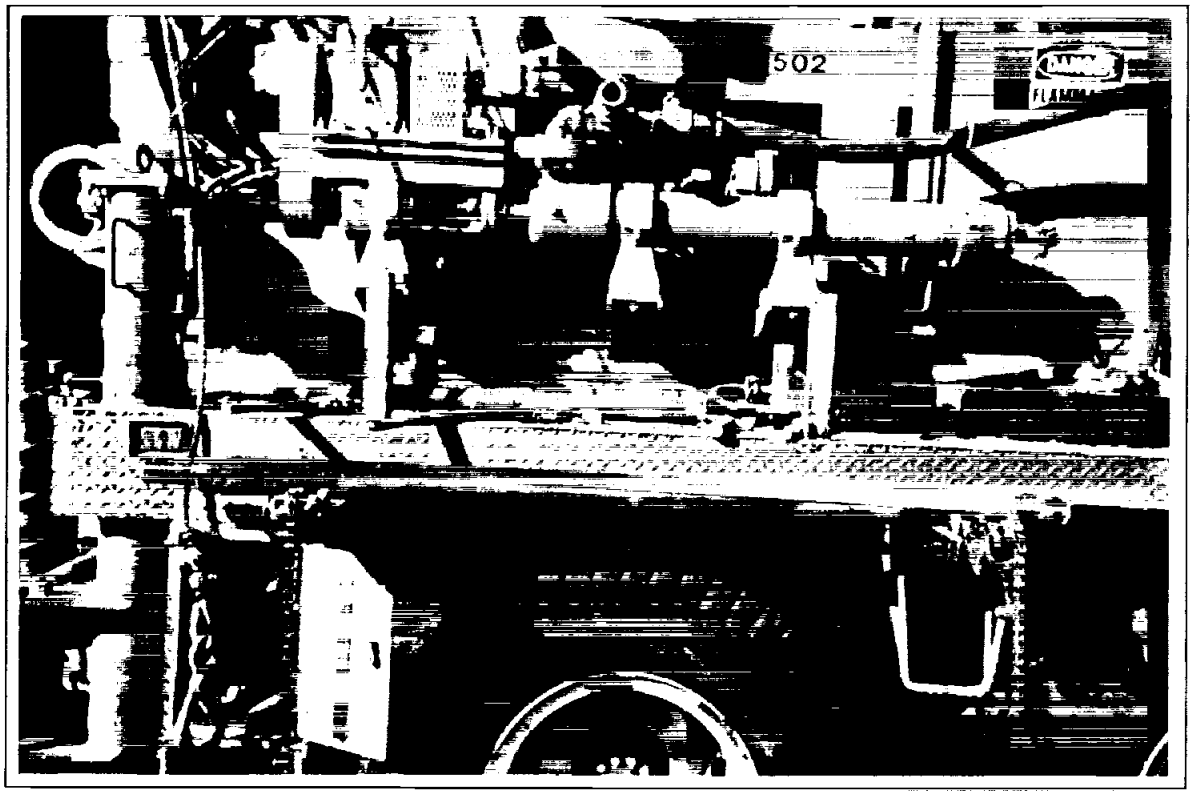


Low-stress sampling set-up at LF04-4B. (16:30, 12/07/96)



Drilling BJETA536 between the active runway and the parallel taxiway, looking north west. (12:39, 12/09/96)

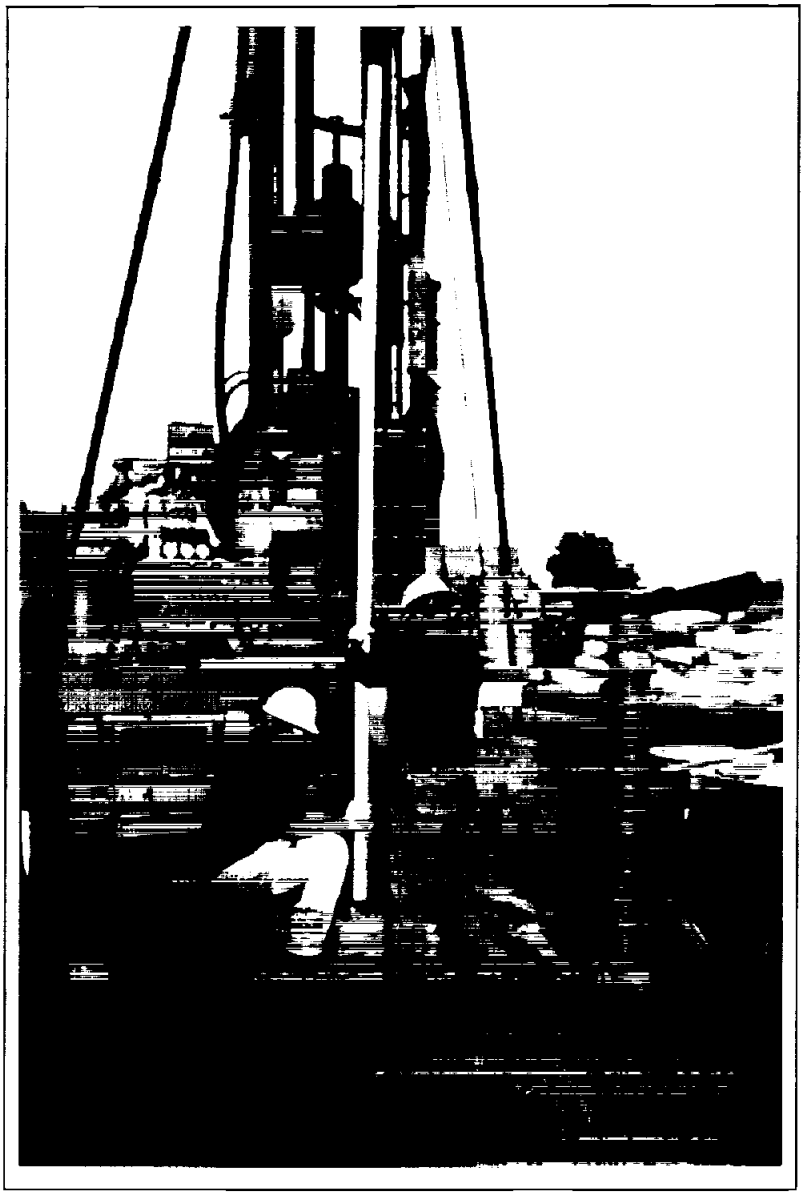
4101229



Five-foot sampler used during drilling operations at WJETA534 (11:01, 12/10/96)

Opening sampler at WJETA534 (10:35, 12/10/96)

4101230



Placing well screen into WJETA534 (14:38, 12/10/96)

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ADMINISTRATIVE RECORD

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4101232

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ADMINISTRATIVE RECORD

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