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BIOSLURPER STATUS REPORT FOR MARCH 2000 THROUGH MARCH 2001 NAVAL WEAPONS STATION - EARLE COLTS NECK, NEW JERSEY

Issued:

June 2001

Prepared for:

Engineering Field Activity-Northeast
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PROJECT TITLE:
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BIOSLURPER STATUS REPORT
MARCH 2000 THROUGH MARCH 2001
NAVAL WEAPONS STATION - EARLE
COLTS NECK, NEW JERSEY

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1.0 INTRODUCTION

This report summarizes the ongoing bioslurper operations at Site 16 at the Naval Weapons Station-Earle facility. The report summarizes the product recovered, groundwater treated, and the analytical results of the air and effluent discharges from the bioslurper systems. The operation period was from March 1, 2000 through December 31, 2001; however, the recovery numbers for the entire operational time (February 1998 through December 2001) are summarized in the report.

Bioslurper Unit #1 (located adjacent to Building C-16) normally recovers product from the following product extraction wells: 16MW-13, 16MW-14, 16MW-15, MW16-04, and vapor extraction wells: 16MW-22 and 16MW-23. Bioslurper Unit #2 (located north of Building C-50) normally extracts from 16MW-20, 16MW-16, C17/20MW-07, 16MW-17 and 16MW-19.

Figure 1 depicts the locations of the extraction wells and bioslurping systems.

2.0 OPERATIONS AND DIFFICULTIES ENCOUNTERED

At the direction of Northern Division, the Bioslurper Units were operated on an interim basis from March 2000 through March 2001. The interim operation was directed in order to save operation and maintenance (O&M) costs while the efficiency of the systems operation could be evaluated.

MARCH 2000

Bioslurper Unit #1 was operated for a total of 36 hours between March 1, 2000 and March 31, 2000. Bioslurper Unit #2 was not operated during March. The total amount of groundwater extracted during this time period was 9,842 gallons, with approximately 78 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit. Table 1 and 2 summarize the product and water extracted from each unit to date.

No operational difficulties were encountered during the operation of the systems in March 2000.

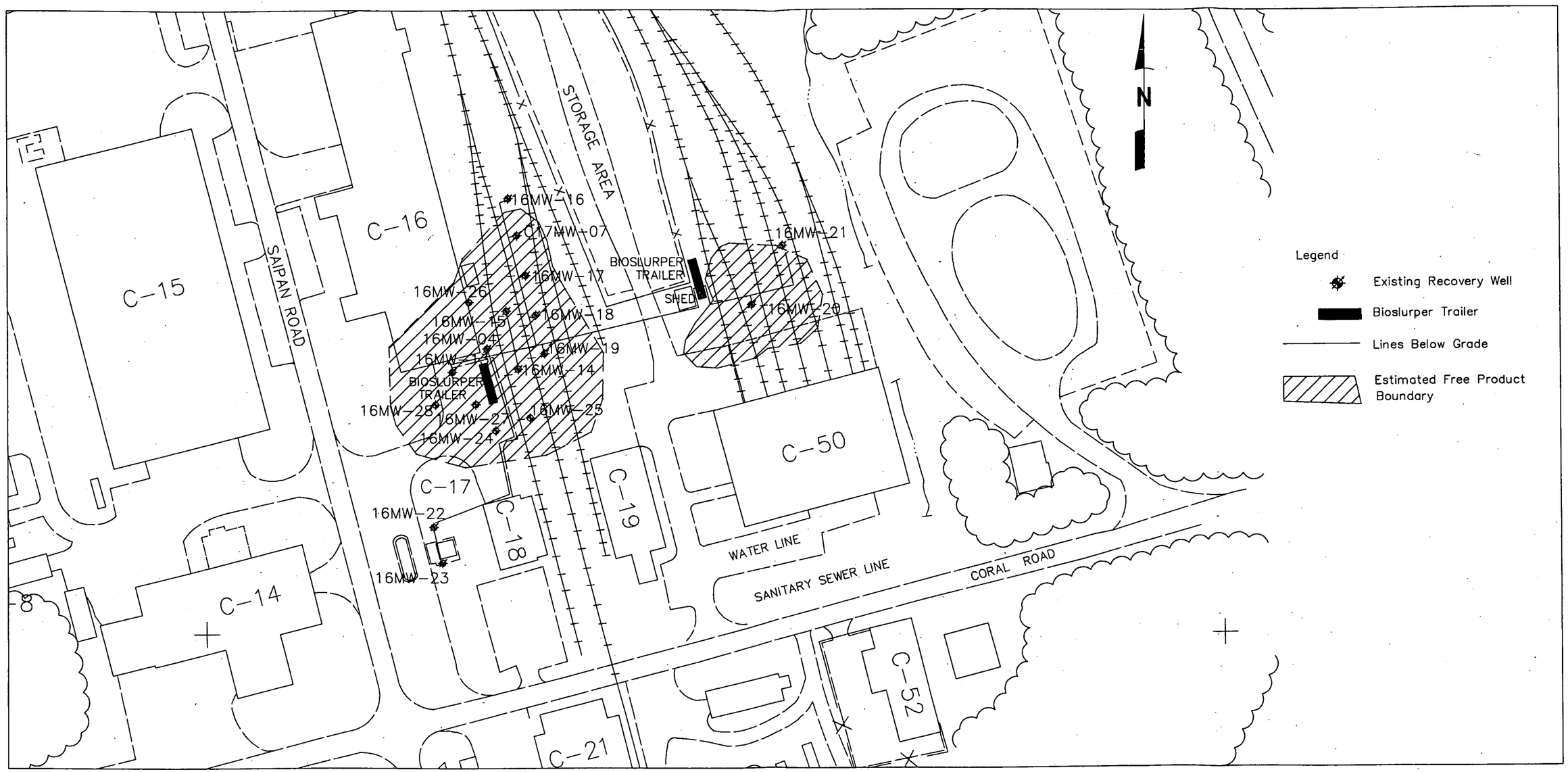

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Figure 1
Recovery Well/System Layout

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SCALE	NO.	DATE	DESCRIPTION	PREP	CHECK	APPROVED	DRAWING NO.	DRAWN BY	APPROVED
1"=100'		9/26/97	Issued for Construction				1		C. Tippmann

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APRIL 2000

Bioslurper Unit #1 was operated for a total of 38 hours between April 1, 2000 and April 31, 2000. Bioslurper Unit #2 was not operated during April. The total amount of groundwater extracted during this time period was 10,945 gallons, with approximately 57 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit. Table 1 and 2 summarize the product and water extracted from each unit to date.

No operational difficulties were encountered during the operation of the systems in April 2000.

MAY 2000

Bioslurper Unit #1 was operated for a total of 36 hours between May 1, 2000 and May 31, 2000. Bioslurper Unit #2 was not operated in the month of May. The total amount of groundwater extracted during this time period was 2,762 gallons, with approximately 10 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

There were problems with the high-pressure alarm switch on the effluent treatment portion of the Bioslurper Unit #1. Partial blockage of the effluent line and a clay absorption treatment unit were the cause of the high-pressure alarm events. The piping was disassembled and cleaned, and the clay unit was changed out to correct the problem. The oil/water separator was also cleaned out.

JUNE 2000

Bioslurper Unit #1 was operated for a total of 31 hours and Bioslurper Unit #2 was operated for a total of 24 hours between June 1, 2000 and June 30, 2000. The total amount of groundwater extracted from both units during this time period was 17,088 gallons, with approximately 39 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in June 2000. The clay and carbon effluent vessels in Unit #1 were vacuumed out and re-bedded with fresh filter media.

JULY 2000

Bioslurper Unit #1 was operated for a total of 51.5 hours and Bioslurper Unit #2 was operated for 47 hours between July 1, 2000 and July 29, 2000. The total amount of groundwater extracted from both units during this time period was 25,307 gallons, with approximately 79 gallons of free-phase oil removed. Appendix A provides a graphical

representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No major operational difficulties were encountered during the operation of the bioslurper system in July 2000. Magnehelic gauges were malfunctioning (needles sticking) due to water build up from excessive humidity. The gauges were disassembled and allowed to dry. A repair was made to fix a minor leak on the effluent discharge pump.

AUGUST 2000

Bioslurper Unit #1 was operated for a total of 48 hours and Bioslurper Unit #2 was operated for 52 hours between August 1, 2000 and August 31, 2000. The total amount of groundwater extracted from both units during this time period was 41,002 gallons, with approximately 48 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

The high/high alarm switch on the effluent side of the oil/water separator activated several times in July, causing the system to shut down. The effluent pump used to transfer water through the groundwater treatment units was vibrating, and not keeping up with the influent to the system. The pump was taken apart, and a partial blockage was removed to fix the problem. Once the pump was re-assembled and started, the alarm problems were fixed. The oil/water separator was cleaned out in order to diminish the flocculent buildup in the system.

SEPTEMBER 2000

Bioslurper Unit #1 was operated for a total of 50.5 hours and Bioslurper Unit #2 was operated for 36 hours between September 1, 2000 and September 30, 2000. The total amount of groundwater extracted from both units during this time period was 58,056 gallons, with approximately 61 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in September 2000. The oil/water separator was cleaned out in order to diminish the flocculent build in the system.

OCTOBER 2000

Bioslurper Unit #1 was operated for a total of 39 hours and Bioslurper Unit #2 was operated for 40 hours between October 1, 2000 and October 31, 2000. The total amount of groundwater extracted from both units during this time period was 53,257 gallons, with approximately 55 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in October 2000. The oil/water separator was cleaned out in order to diminish the flocculent buildup in the system.

NOVEMBER 2000

Bioslurper Unit #1 was operated for a total of 20 hours between November 1, 2000 and November 31, 2000. Bioslurper Unit #2 was not operated. The total amount of groundwater extracted during this time period was 27,785 gallons, with approximately 33 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in November 2000. The oil/water separator was cleaned out in order to diminish the flocculent buildup in the system. All of the float-sensor assemblies and sight glasses were also dismantled and cleaned in order to remove particulate (ie. iron, biogrowth, etc.) buildup.

DECEMBER 2000

Bioslurper Unit #1 was operated for a total of 49 hours between December 1, 2000 and December 31, 2000. Bioslurper Unit #2 was operated on limited basis. The total amount of groundwater extracted from both units during this time period was 51,079 gallons, with approximately 32 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in December 2000. The oil/water separator was cleaned out in order to diminish the flocculent buildup in the system. The influent water line to Unit #1 froze and caused the liquid ring pump to shut down. The ground fault circuit interrupter (GFCI) on the heat trace outlet was tripped inside Building C-16. Someone may have used the outlet for something that tripped the GFCI. The water pipe was no damage was observed. The heat trace lines were re-energized to resolve the problem.

JANAURY 2001

Bioslurper Unit #1 was operated for a total of 36 hours between January 1, 2001 and January 31, 2001. Bioslurper Unit #2 was not operated. The total amount of groundwater extracted during this time period was 25,897 gallons, with approximately 31 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper systems in January 2001.

FEBRUARY 2001

Bioslurper Unit #1 was operated for a total of 44.5 hours and Bioslurper Unit #2 was operated for 17 hours between February 1, 2001 and February 28, 2001. The total amount of groundwater extracted from both units during this time period was 46,833 gallons, with approximately 49.5 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in February 2001. The clay and carbon groundwater treatment vessels associated with Bioslurper Unit #1 were vacuumed out and re-bedded with fresh filter media.

MARCH 2001

Bioslurper Unit #1 was operated for a total of 55 hours and Bioslurper Unit #2 was operated for 24 hours between March 1, 2001 and March 31, 2001. The total amount of groundwater extracted from both units during this time period was 53,746 gallons, with approximately 39.5 gallons of free-phase oil removed. Appendix A provides a graphical representation of the amount of oil/groundwater extracted, and the operational hours for each Unit.

No operational difficulties were encountered during the operation of the bioslurper system in March 2001. The clay and carbon groundwater treatment vessels associated with Bioslurper Unit #2 were vacuumed out and re-bedded with fresh filter media. Both bioslurper units were shut down at the end of March 2001, in accordance with the period of performance for Delivery Order No. 55. When additional funding is available, both systems will be re-started.

Five additional wells were installed in the vicinity of Building C-16 for potential connection to Bioslurper Unit No.1. These wells were located and installed in accordance with the approved work plan for the system expansion. Figure 2 depicts the location of the newly installed recovery wells.

3.0 EVALUATION OF SITE CONDITIONS

Water level and product thickness measurements have been obtained periodically from the extraction wells since August 1997 to establish product thickness and groundwater elevation trends. Appendix B provides a tabular and graphical representation of the adjusted water levels and product thickness in the extraction wells. All of the extraction wells contained measurable product, with the exception of 16MW-21. As expected, the vapor extraction wells (16MW-22 and 16MW-23) located near the former gas station, did not contain measurable quantities of free-product.

As demonstrated in the graphs contained in Appendix B, the water table elevations are typically at their highest level in the spring due to the increased precipitation and infiltration. A definite decrease in the water table elevations is noted in the mid-summer months of July and August of 2000. The same trend of decreasing water table elevations is being observed

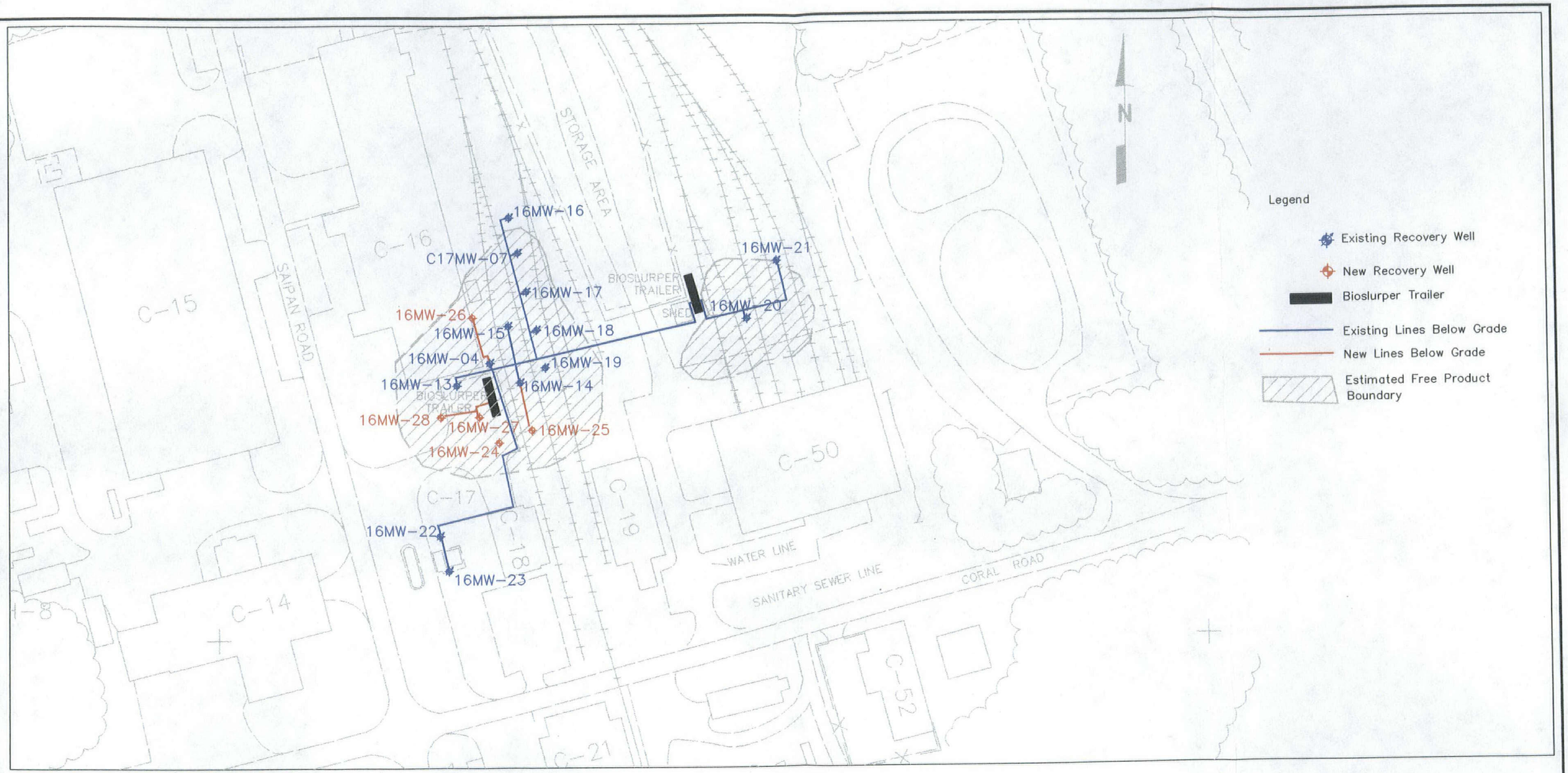

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Figure 2
Recovery Well/System Layout Depicting New Wells

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SCALE	NO.	DATE	DESCRIPTION	PREP	CHECK	APPROVED	DRAWING NO.	DRAWN BY	APPROVED
1"=100'		9/26/97	Issued for Construction				1		C. Tippmann

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from the spring into summer of 2001. It should be noted that the most effective product recovery occurs when the water table elevations are at their lowest, thus exposing any trapped product below the water table (smear zone). Both bioslurper systems were turned off at the end of March 2001, and product thickness increases can be observed as the water table elevations are lowered.

Figures 3 through 5 depict the product thickness isopleths from April 2000 through May 2001. The typical product distribution for the operational period is depicted in Figure 3 (April 200). Figure 4 depicts the diminished product thickness immediately after the system was turned off in March 2001. Figure 5 depicts the increased product thickness isopleths in May 2001 resulting from recharge of product to the wells after the system was turned off in March 2001. The additional product thickness data obtained from the installation of the new wells show that the main portion of the product plume is underlying the parking lot south of Building C-16.

4.0 PRODUCT RECOVERY DATA

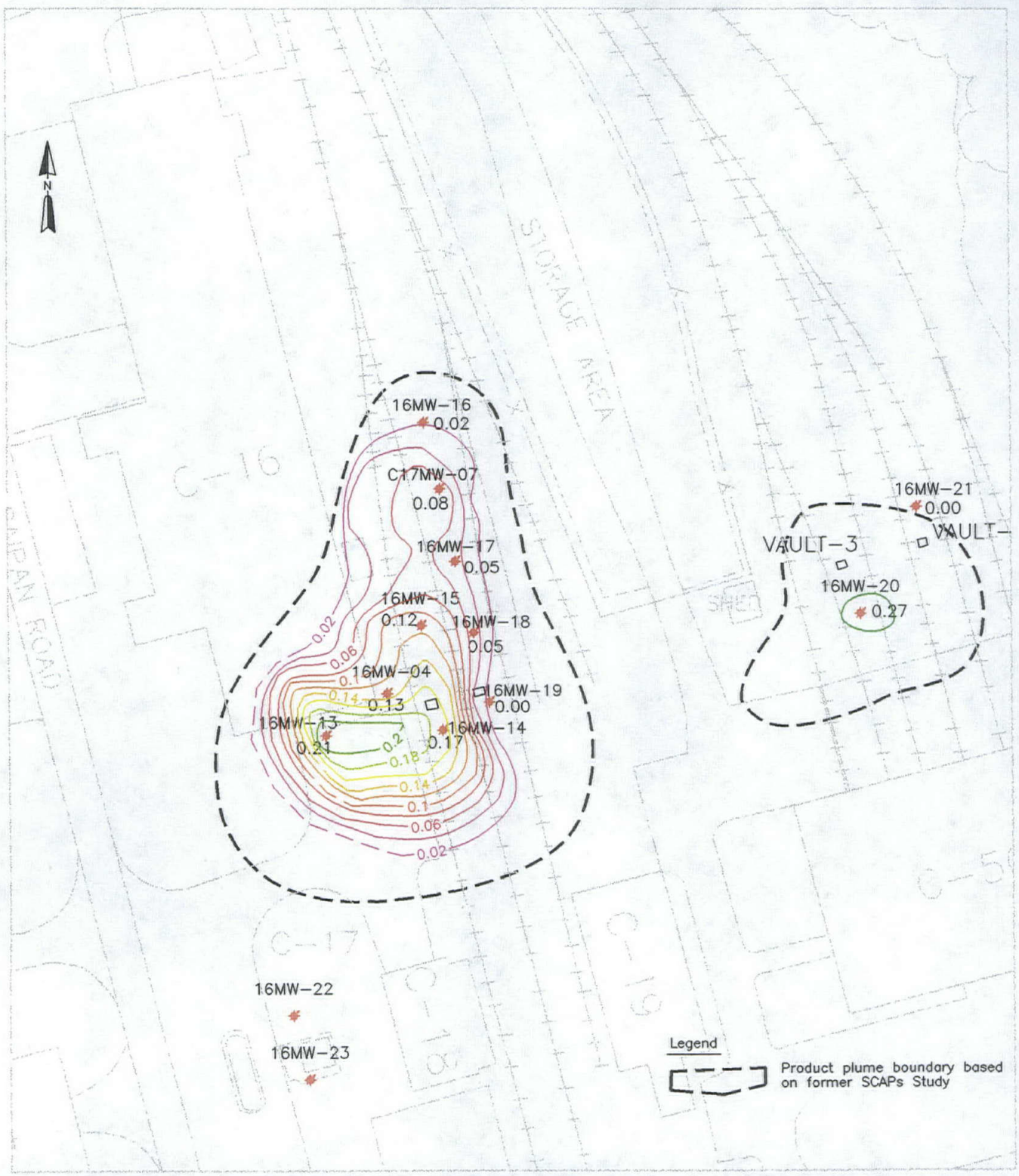
Table 1 summarizes the amount of free-phase oil recovered from the Bioslurper Extraction Units. Appendix A provides a graphical representation of the amount of oil/groundwater extracted and the operational hours for each Unit. Table 2 summarizes the groundwater extracted/treated to date. Table 3 summarizes the volume of total petroleum hydrocarbons (TPH) removed via the groundwater treatment component of bioslurper systems. The TPH removal rate for the groundwater discharges was calculated using laboratory analytical data and the volume of water processed.

The product recovery operations from March 2000 to March 2001 have been fairly consistent, but showing a slight decrease in total product recovery over time. The decreased product over time is anticipated based upon the removal of free product and the product available for removal over time. The greatest product recovery rates observed for Bioslurper Unit No. 1 in the year 2000 were from August through October, which is expected due to lower water table elevations. Bioslurper Unit No.2 does not recover as much product as Unit No. 1 because this system is connected to recovery wells on the outer edge of the product plume, whereas Unit No. 1 operates from wells in the central portion of the plume.

5.0 EFFLUENT AND AIR ANALYSIS

5.1 EFFLUENT ANALYSIS

The effluent from Bioslurper Unit No.1 is processed through one bag filter (equipped with a 75-micron filter), three modified bentonite clay vessels (operating in series), and two liquid-phase granular activated carbon vessels (operating in series). The bag filter removes particulates (mainly precipitated iron), the clay units remove the higher molecular weight volatile organic compounds (VOCs) and TPH, and the activated carbon removes the remaining VOC and TPH compounds. The effluent from Bioslurper Unit No. 2 is processed the same manner, except that only two bentonite vessels in series are used instead of three.



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FEET

U.S. Navy RAC
NWS- Earle, Colts Neck, NJ

Figure 3

Product Thickness (ft.) Isopleth
4/17/2000

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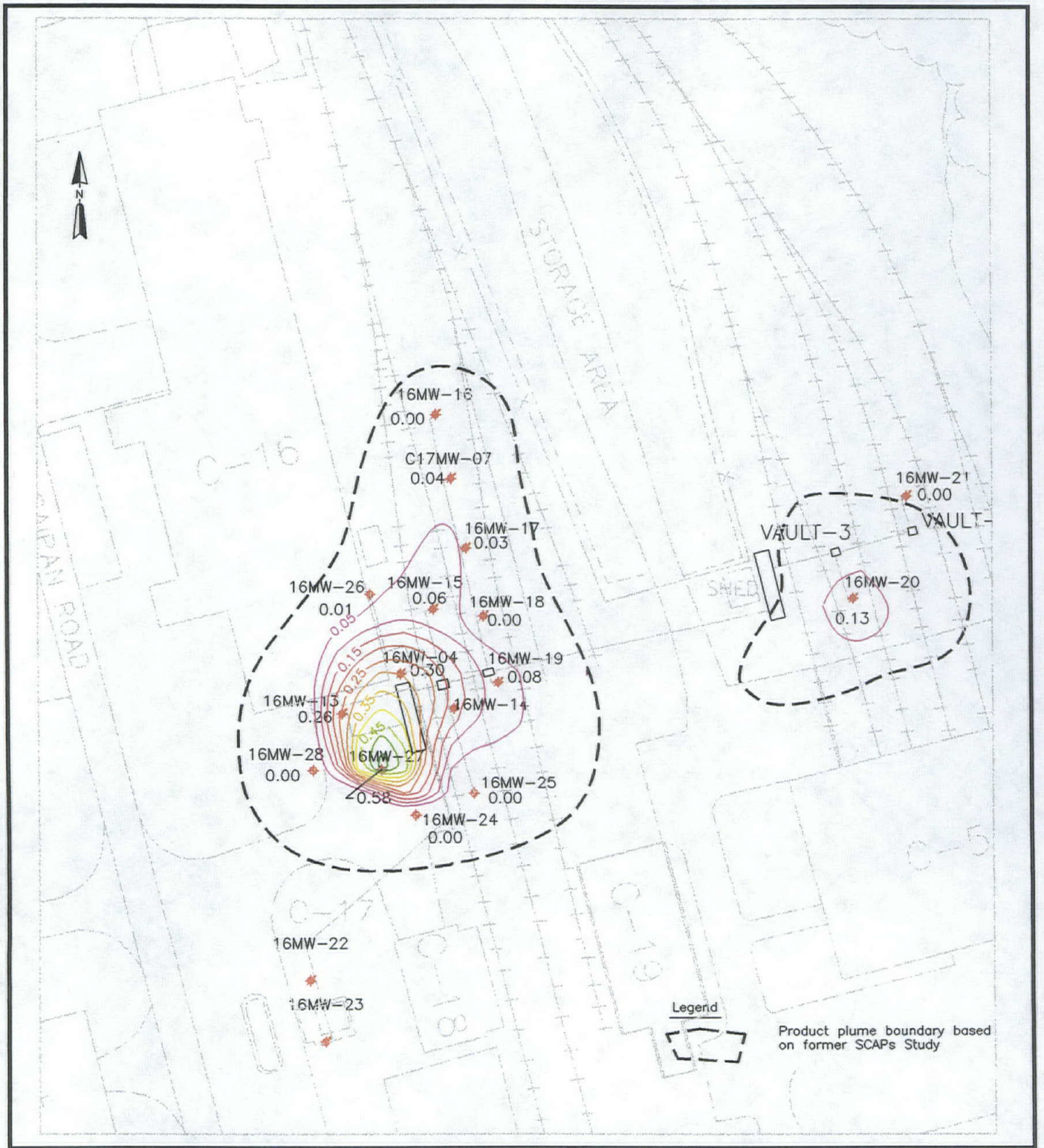

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Figure 4
Product Thickness (ft.) Isopleth
3/27/2001

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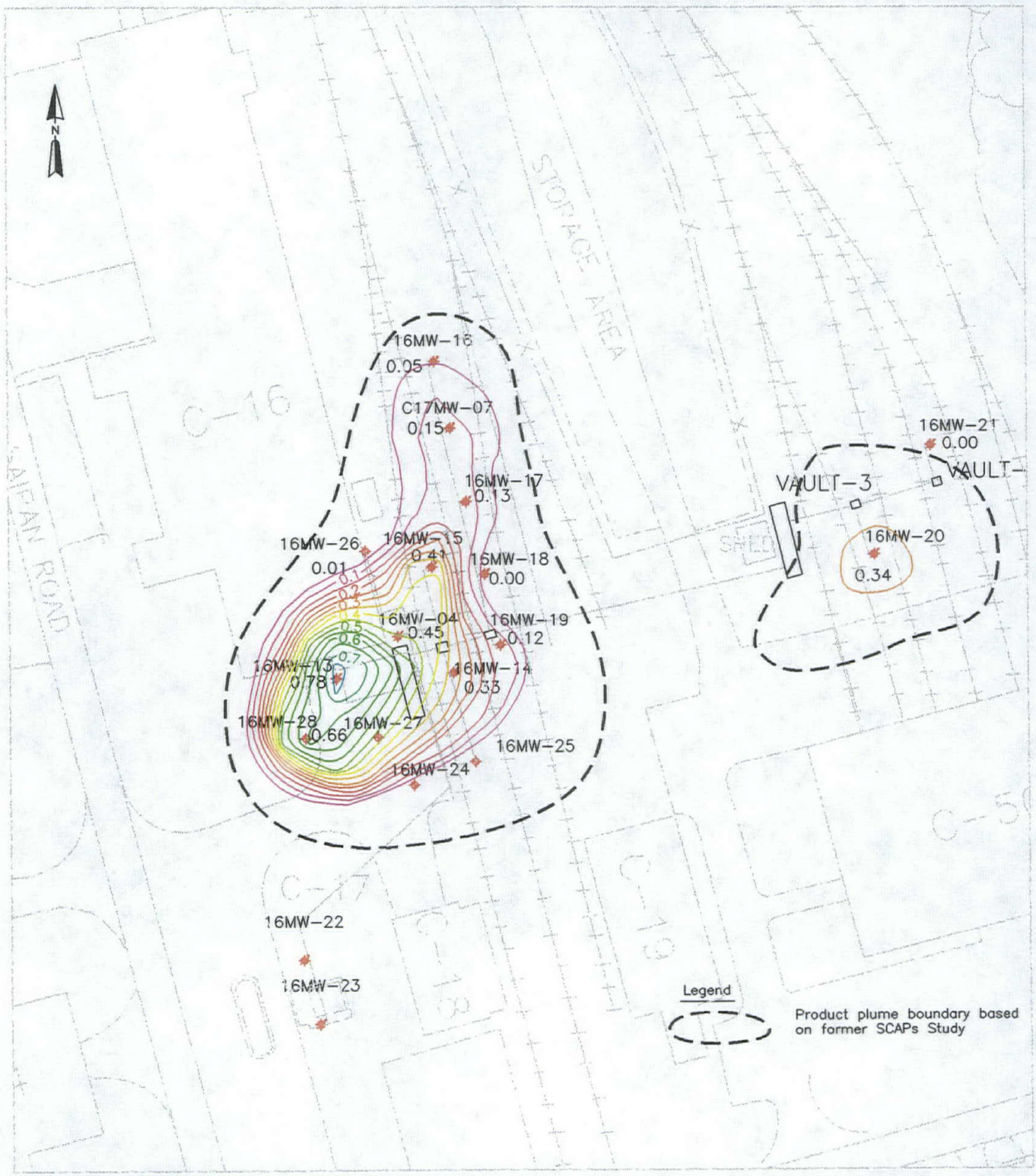

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NWS- Earle, Colts Neck, NJ

Figure 5
Product Thickness (ft.) Isopleth
5/11/2001

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Unit No. 2 is configured in this manner because of the lower TPH concentrations of the effluent.

The groundwater effluent from the bioslurper units is routinely sampled to ensure the discharges are in compliance with the requirements set forth by the Navy Weapons Station-Earle Sewer Treatment Plant (< 10 ppm TPH).

Table 4 summarizes the TPH results of the effluent samples. Appendix D contains the laboratory analytical results of the effluent samples. As demonstrated by the laboratory analytical results, all effluent discharged to the NWS-Earle Sewer Treatment Plant contained TPH concentrations less than 10 ppm.

5.2 AIR ANALYSIS

The air discharges from the bioslurper units are routinely sampled to ensure discharges are in compliance with the NJDEP air discharge permit. The air discharge is sampled for total VOCs (including benzene). Appendix C summarizes the analytical results of the air discharge samples and the permit limits. Appendix C also contains the laboratory analytical results.

As indicated by the analytical results, both bioslurper units are operating within the permit requirements established for air discharge.

6.0 CONCLUSIONS

The bioslurper units continued to operate within the design limits with minor operational problems. The bioslurper units were operated at a vacuum of approximately 25 inches of mercury. A vacuum of between 3 to 5 inches of mercury was applied to each extraction well to extract an average total volume of approximately 2.25-gallons per minute (gpm) per well from Unit No. 1 and 1.75 gpm per well from Unit No. 2 from March 2000 through March 2001. The extraction wells were only operated one or two hours five days a week to extract the product in the well and minimize the O & M costs.

As discussed in the One-Year Operational Report, the O&M costs of the groundwater treatment system could be minimized with the installation of an equalization tank located after the oil/water separator and prior to the dissolved-phase treatment units. If the Navy approves this approach, a temporary frac tank can be set up to test the theory that a longer retention time would decrease the dissolved-phase TPH concentrations of the oil/water separator effluent prior to VOC treatment. The decreased TPH concentrations would extend the life of the treatment media, thereby decreasing the O&M costs. Analytical samples could be taken and analyzed prior to and after a retention time of 10 to 12-hours to quantitatively evaluate the dissolved-phase TPH concentrations and mass loading of the treatment vessels.

TABLE 1
NAVAL WEAPONS STATION-EARLE
BIOSLURPER UNITS
FREE-PHASE OIL EXTRACTION TO DATE

	1998 Free-Phase Oil Extracted (gallons)												Year
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	T tal
Bioslurper System #1		400	375	275	300	ND	ND	225	250	250	140	225	2440.0
Bioslurper System #2		25	50	50	20	ND	ND	55	30	40	20	30	320.0
Total		425	425	325	320			280	280	290	160	255	2760.0
	1999 Free-Phase Oil Extracted (gallons)												Year
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	Total
Bioslurper System #1	220	50	125	65	ND	ND	ND	34	ND	ND	66	ND	560.0
Bioslurper System #2	20	15	15	10	ND	ND	ND	14	ND	ND	14	ND	68.0
Total	240	65	140	75				48			80		648.0
	2000 Free-Phase Oil Extracted (gallons)												Year
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	T tal
Bioslurper System #1	30	60	78	57	10	15	32	43	57	55	33	32	502.0
Bioslurper System #2	ND	ND	ND	ND	ND	24	1	5	4	0	ND	0	34.0
Total	30	60	78	57	10	39	33	48	61	55	33	32	536.0
	2001 Free-Phase Oil Extracted (gallons)												Year
	Jan.	Feb.	March										T tal
Bioslurper System #1	31	45	35										111.0
Bioslurper System #2	ND	4.5	4.5										9.0
Total	31	49.5	39.5	0	0	0	0	0	0	0	0	0	120.0

Total Free-Phase Oil Extracted to Date = 4064

Notes:

ND - no data due to system not in operation

TABLE 2
NAVAL WEAPONS STATION-EARLE
BIOSLURPER UNITS
GROUNDWATER EXTRACTION TO DATE

	1998 Groundwater Extracted (gallons)												Year
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	T tal
Bioslurper System #1		2675	26,169	23898	12799	ND	ND	16498	34612	29974	20503	40611	207739
Bioslurper System #2		5282	20,586	22607	6584	ND	ND	13537	14451	27850	16196	9141	136234
Total		7957	46755	46505	19383			30035	49063	57824	36699	49752	343973
	1999 Groundwater Extracted (gallons)												Year
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	T tal
Bioslurper System #1	35078	6536	49834	40889	ND	ND	ND	7321	ND	ND	ND	ND	139658
Bioslurper System #2	8843	536	12956		ND	ND	ND		ND	ND	ND	ND	13492
Total	43921	7072	62790	40889	ND	ND	ND	7321	ND	ND	ND	ND	161993
	2000 Groundwater Extracted (gallons)												Year
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	T tal
Bioslurper System #1	3393	4618	9842	10945	2764	14112	19758	23298	36900	31669	27785	30231	215315
Bioslurper System #2	ND	ND	ND	ND	ND	2976	5549	17704	21156	21588	ND	20848	89821
Total	3393	4618	9842	10945	2764	17088	25307	41002	58056	53257	27785	51079	305136
	2001 Groundwater Extracted (gallons)												Year
	Jan.	Feb.	March										T tal
Bioslurper System #1	25897	30981	33832										90710
Bioslurper System #2	ND	15852	19914										35766
Total	25897	46833	53746	0	0	0	0	0	0	0	0	0	126476

Total Groundwater Extracted to Date = 937,578

Notes:

ND - no data due to system not in operation

TABLE 3
NAVAL WEAPONS STATION-EARLE
BIOSLURPER UNITS
TOTAL PETROLEUM HYDROCARBON (TPH)
REMOVED VIA GROUNDWATER TREATMENT

	1998 TPH Removed via Groundwater Treatment (pounds)												Year Total
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
Bioslurper System #1		60.75	125.14	306.42	135.56	ND	ND	47.30		175.99	179.16	192.96	1223.28
Bioslurper System #2		4.25	14.17	32.40	9.61	ND	ND		13.99	2.37	4.26	11.48	92.53
Total		65.00	139.31	338.82	145.17	ND	ND	47.30	13.99	178.36	183.42	204.44	1315.81
	1999 TPH Removed via Groundwater Treatment (pounds)												Year Total
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
Bioslurper System #1	60.48	56.18	394.28	285.29	ND	ND	ND	ND	ND	ND	0.29	ND	796.52
Bioslurper System #2	3.84	0.21	29.30	15.20	ND	ND	ND	ND	ND	ND	0.01	ND	44.72
Total	64.32	56.39	423.58	300.49	ND	ND	ND	ND	ND	ND	0.30	ND	845.08
	2000 TPH Removed via Groundwater Treatment (pounds)												Year Total
	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
Bioslurper System #1	8.58	ND	17.20	30.99	ND	31.80	18.14	ND	95.47	160.86	92.04	327.49	782.56
Bioslurper System #2	0.01	ND	ND	ND	ND	0.11	0.40	ND	2.63	37.55	ND	21.71	62.39
Total	8.59	ND	17.20	30.99	0.00	31.91	18.53	ND	98.10	198.40	92.04	ND	844.95
	2001 TPH Removed via Groundwater Treatment (pounds)												Year Total
	Jan.	Feb.	March										
Bioslurper System #1	34.31	45.04	50.54										129.89
Bioslurper System #2	ND	8.59	59.43										68.02
Total	34.31	49.65	109.97	0.00	0.00	0.00	0.00	ND	0.00	0.00	0.00	ND	197.91

Pounds of TPH Removed via Groundwater Treatment to Date = 3203.75

Notes:

ND - no data due to system not in operation

Pounds of TPH: Influent - effluent concentration (mg/l) x 3.785 l/gal x 0.001 g/mg x 0.002205 lb/g x monthly effluent (gal) = lbs TPH

TABLE 4
NAVAL WEAPONS STATION-EARLE
BIOSLURPER UNITS NO. 1 AND NO. 2
TOTAL PETROLEUM HYDROCARBON (TPH)
EFFLUENT CONCENTRATIONS (mg/l)

Effluent Sample Date	Unit No. 1		Unit No. 2	
	Before Clay/Carbon	After Clay/Carbon	Before Clay/Carbon	After Clay/Carbon
02/29/00	<0.5	<0.5	NA	NA
04/04/00	210	0.57	NA	NA
04/28/00	16(A)EW00W5	16(A)EW00W6		
04/28/00	340	0.68	NA	NA
06/19/00	270	<1.0	4.4	<1.0
07/21/00	16(A)EW00W10	16(A)EW00W09	16(B)EW00W05	16(B)EW00W06
07/21/00	110	<1.0	8.7	<1.0
09/07/00	16(A)EW11	16(A)EW12	16(B)EW07	16(B)EW08
09/07/00	310	5.1	18	3.1
10/30/00	16(A)EW13	16(A)EW14	16(B)EW09	16(B)EW10
10/30/00	610	1.4	210	1.6
11/30/00	16(A)EW15	16(A)EW16	16(B)EW11	16(B)EW12
11/30/00	400	3.1	220	2
12/28/00	16(A)EW17	16(A)EW18	16(B)EW13	16(B)EW14
12/28/00	1300	2.4	1301	2.6
01/29/01	16(A)EW19	16(A)EW20	16(B)EW15	16(B)EW16
01/29/01	210	1.6	75	1.6
02/27/01	16(A)EW21	16(A)EW22	16(B)EW17	16(B)EW18
02/27/01	160	1.2	67	2.1
03/30/01	16(A)EW23	16(A)EW24	16(B)EW19	16(B)EW20
03/30/01	180	1	360	2.4

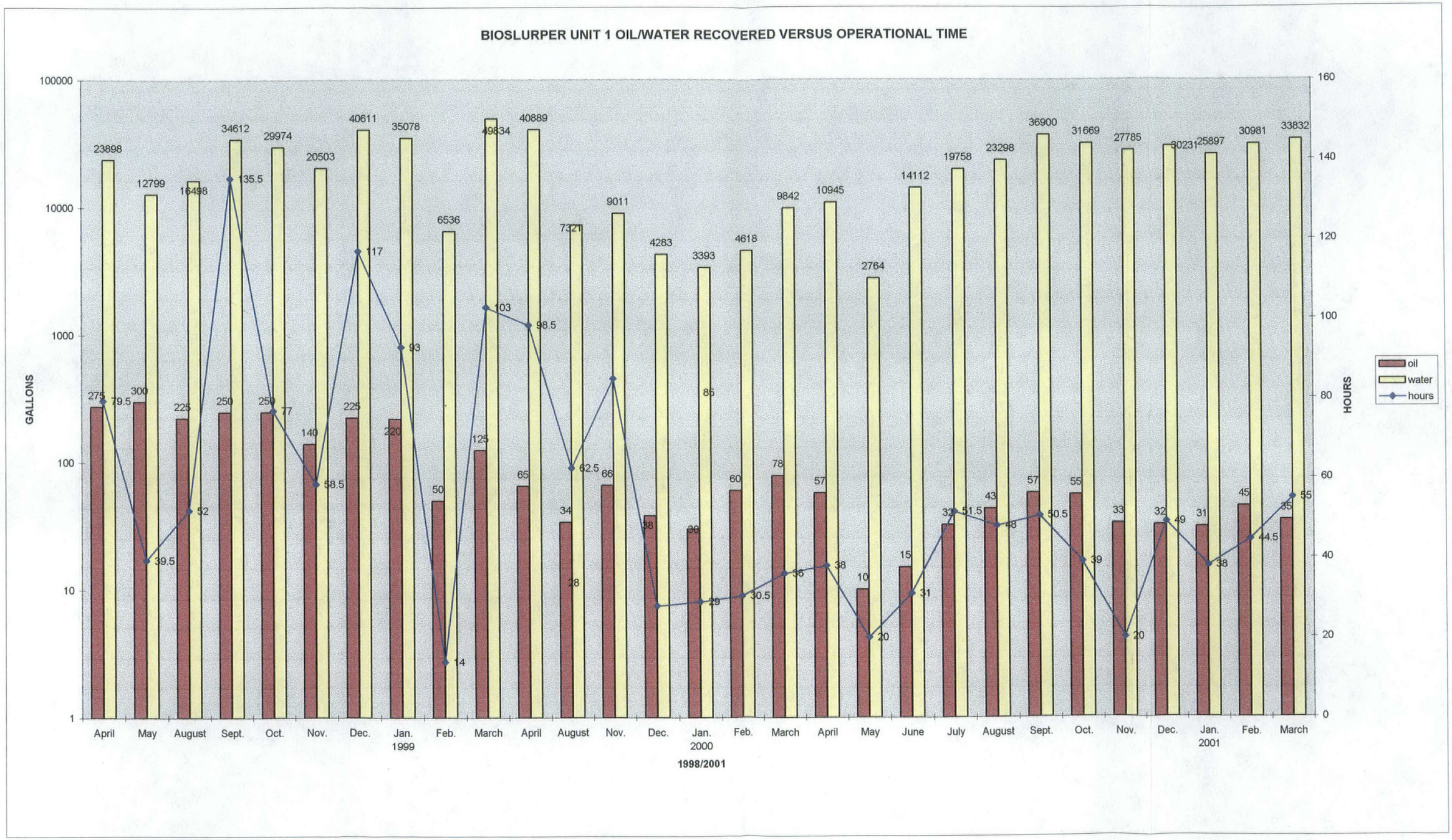
Notes:

All units are mg/l

The NWS-Earle Sewer Treatment Plant NJPDES Permit Discharge Limit for TPH is 10 ppm.

ND = not detected above the laboratory detection limit.

NA = not applicable (no sample collected)


BIOSLURPER UNIT 1 OIL/WATER RECOVERED VERSUS OPERATIONAL TIME
GALLONS
HOURS
oil
water
hours
100000
10000
1000
100
10
1
160
140
120
100
80
60
40
20
0
23898
12799
16498
34612
29974
20503
40611
35078
6536
49834
40889
7321
9011
4283
3393
4618
9842
10945
2764
14112
19758
23298
36900
31669
27785
30231
25897
30981
33832
275
300
225
250
250
140
225
220
50
125
65
34
66
38
36
60
78
57
10
15
32
43
57
55
33
32
31
45
35
79.5
39.5
52
135.5
77
58.5
117
93
14
103
98.5
62.5
29
30.5
35
38
20
31
51.5
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50.5
39
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49
38
44.5
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April
May
August
Sept.
Oct.
Nov.
Dec.
Jan. 1999
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Dec.
Jan. 2000
Feb.
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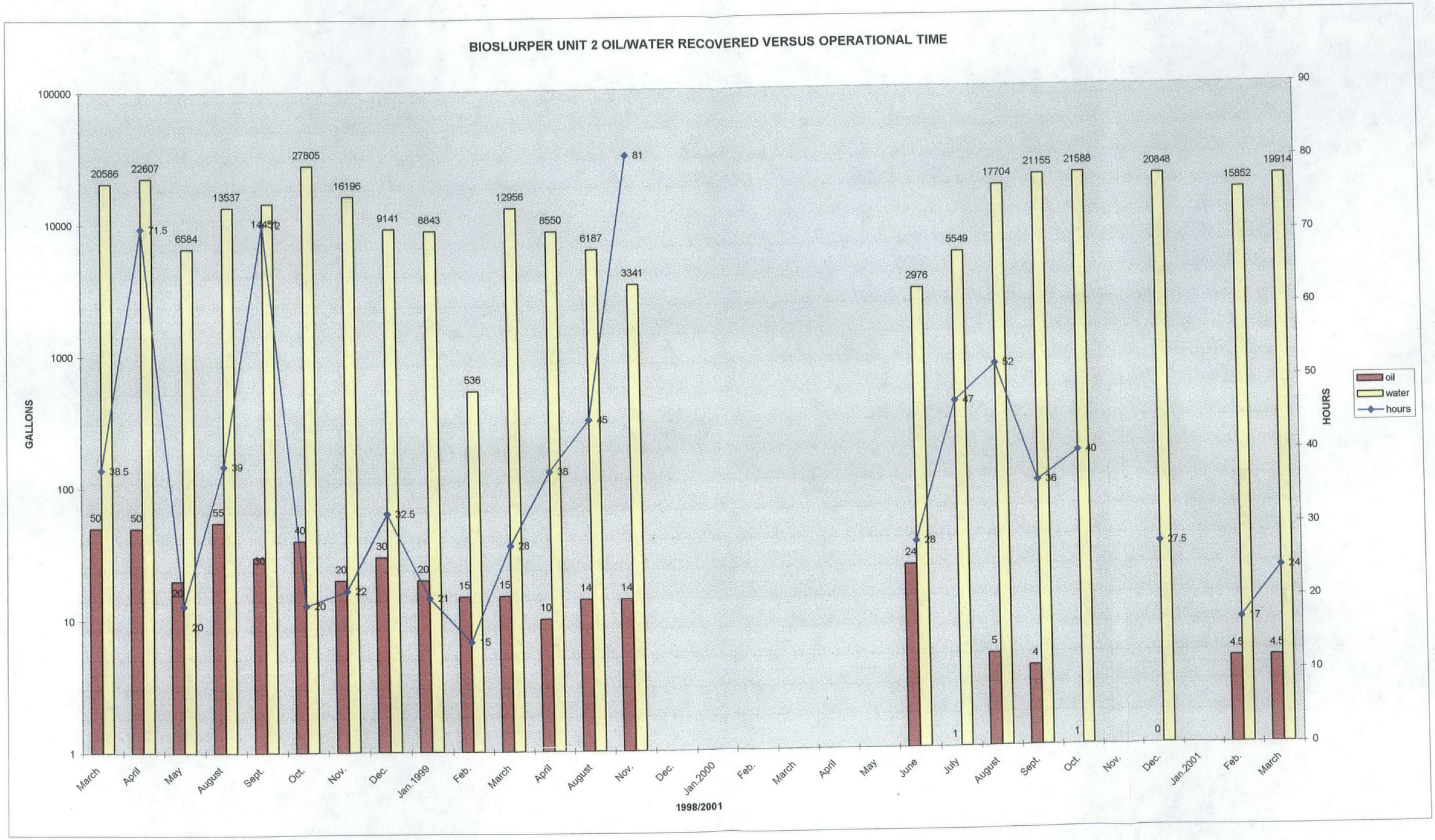
May
June
July
August
Sept.
Oct.
Nov.
Dec.
Jan. 2001
Feb.
March
1998/2001


BIOSLURPER UNIT 2 OIL/WATER RECOVERED VERSUS OPERATIONAL TIME
GALLONS
HOURS
100000
10000
1000
100
10
1
90
80
70
60
50
40
30
20
10
0
oil
water
hours
20586
22607
6584
13537
14452
27805
16196
9141
8843
536
12956
8550
6187
3341
2976
5549
17704
21155
21588
20848
15852
19914
50
50
20
55
30
40
20
30
20
15
15
10
14
14
24
1
5
4
1
0
4.5
4.5
38.5
71.5
20
39
20
20
22
32.5
21
15
28
38
45
81
28
47
52
36
40
27.5
17
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Sept.
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Jan.1999
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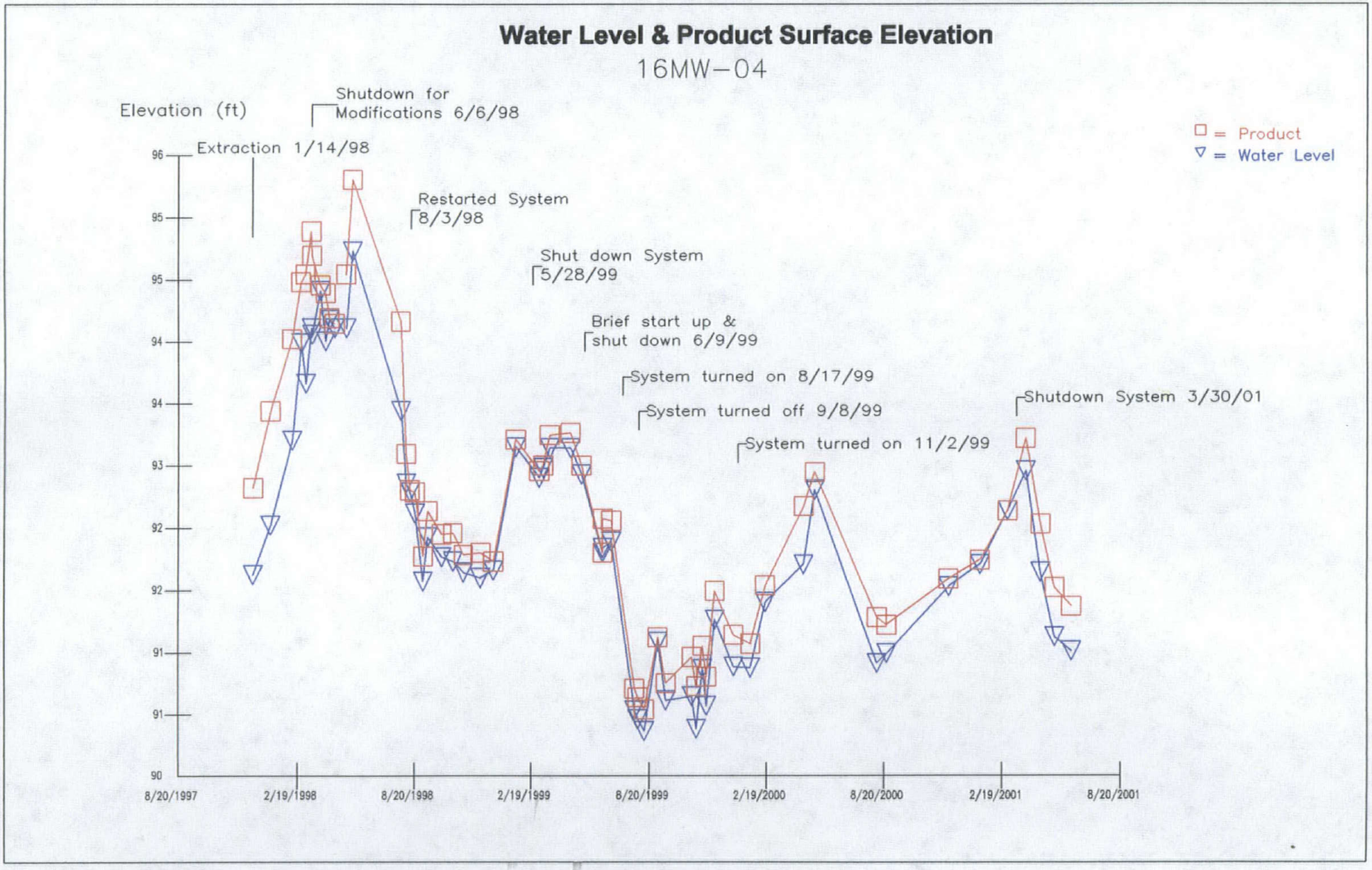
Water Level & Product Surface Elevation
16MW-04
Elevation (ft)
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
□ = Product
▽ = Water Level
96
95
95
94
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93
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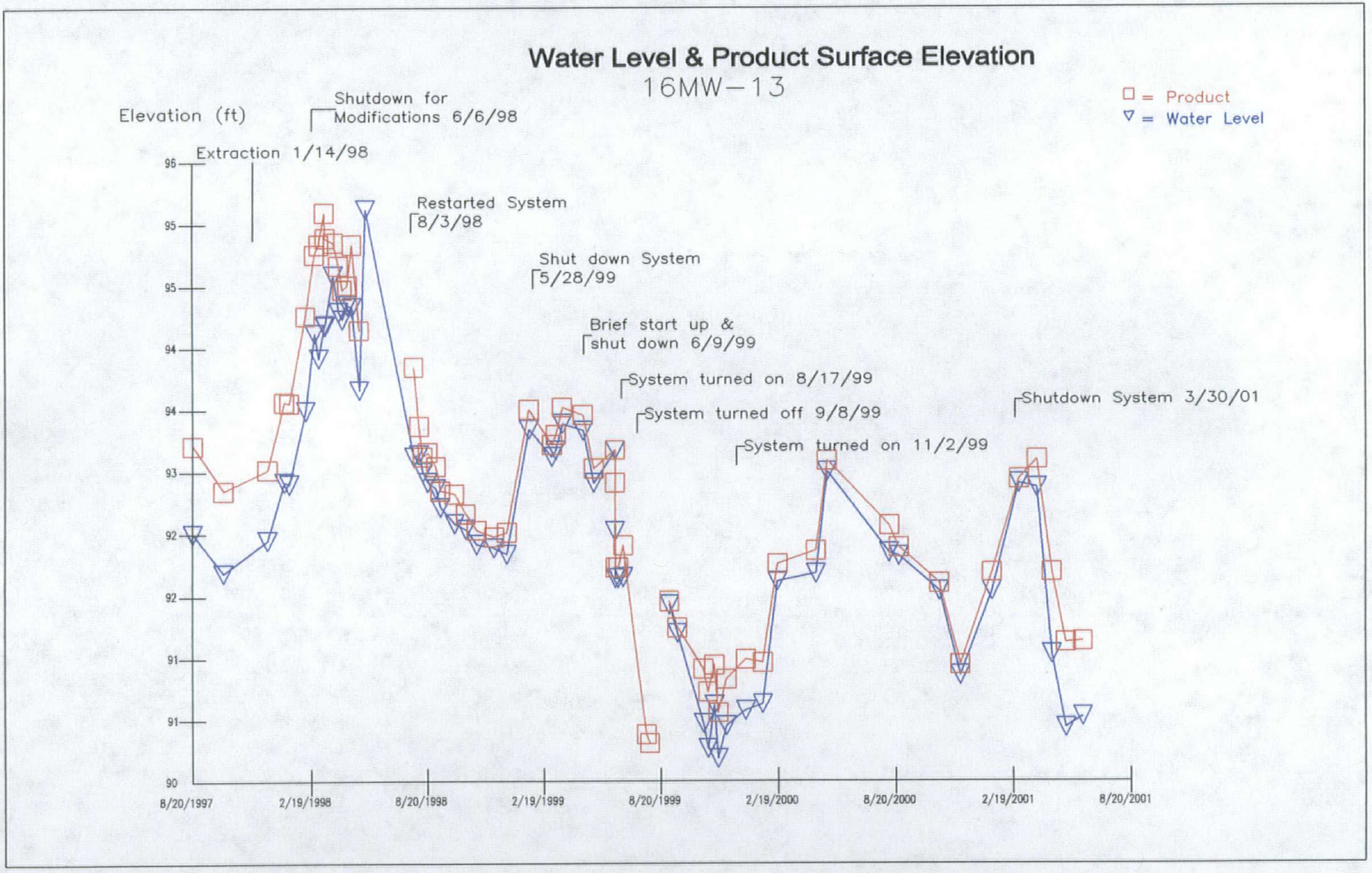
92
91
91
90
8/20/1997
2/19/1998
8/20/1998
2/19/1999
8/20/1999
2/19/2000
8/20/2000
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-13
Elevation (ft)
□ = Product
▽ = Water Level
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
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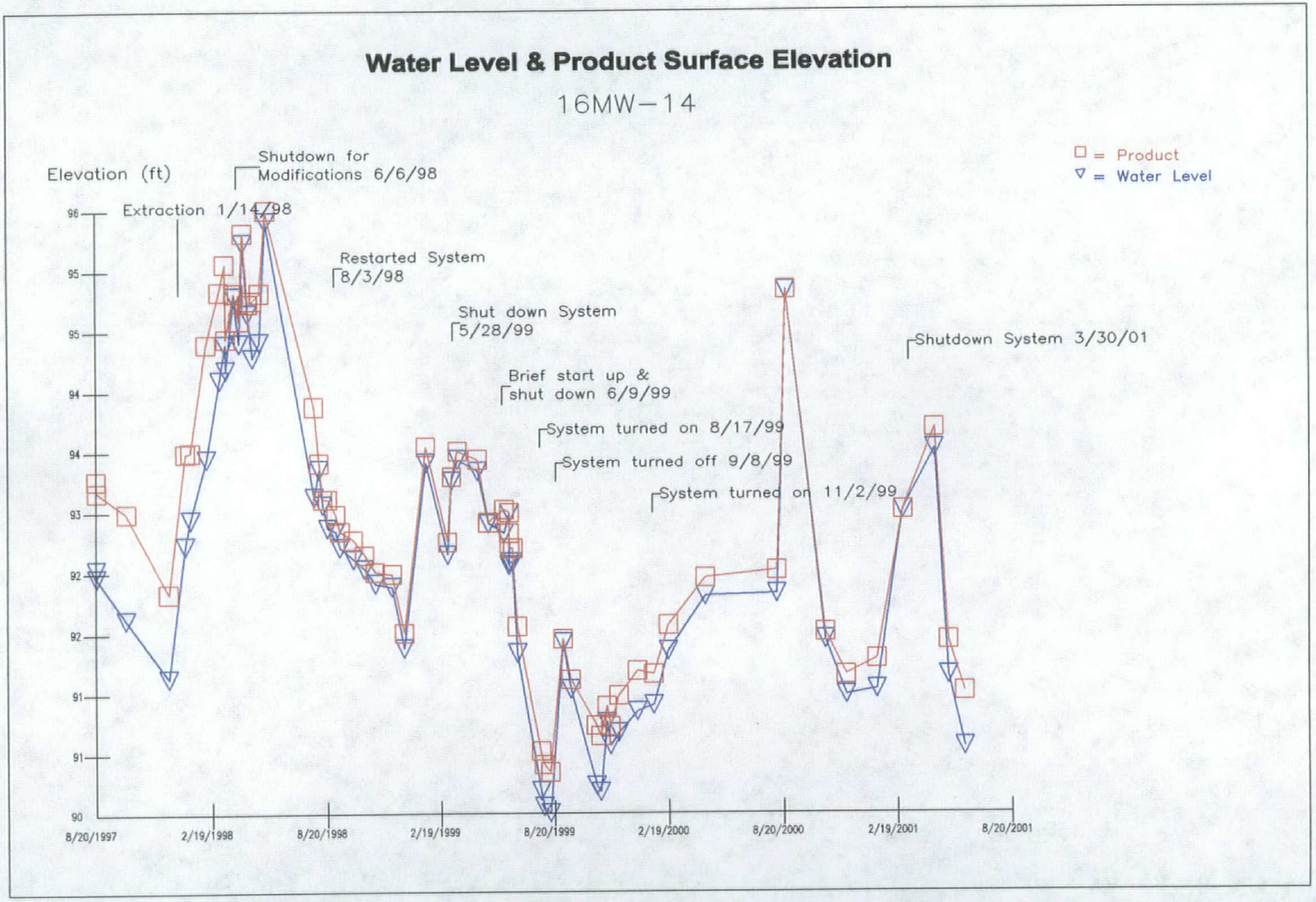
90
8/20/1997
2/19/1998
8/20/1998
2/19/1999
8/20/1999
2/19/2000
8/20/2000
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-14
Elevation (ft)
□ = Product
▽ = Water Level
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
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8/20/1997
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8/20/1998
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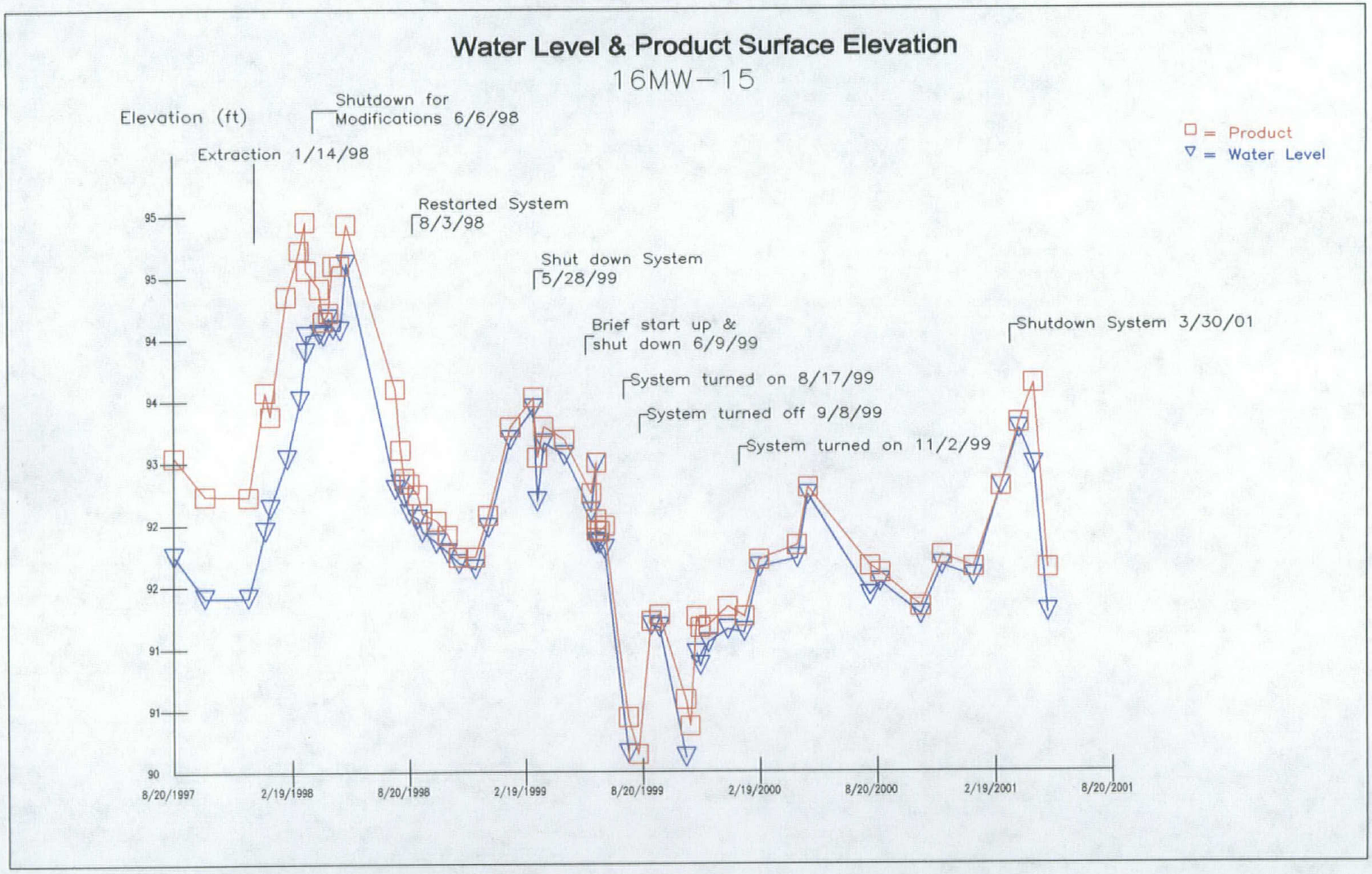
8/20/2000
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-15
Elevation (ft)
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
□ = Product
▽ = Water Level
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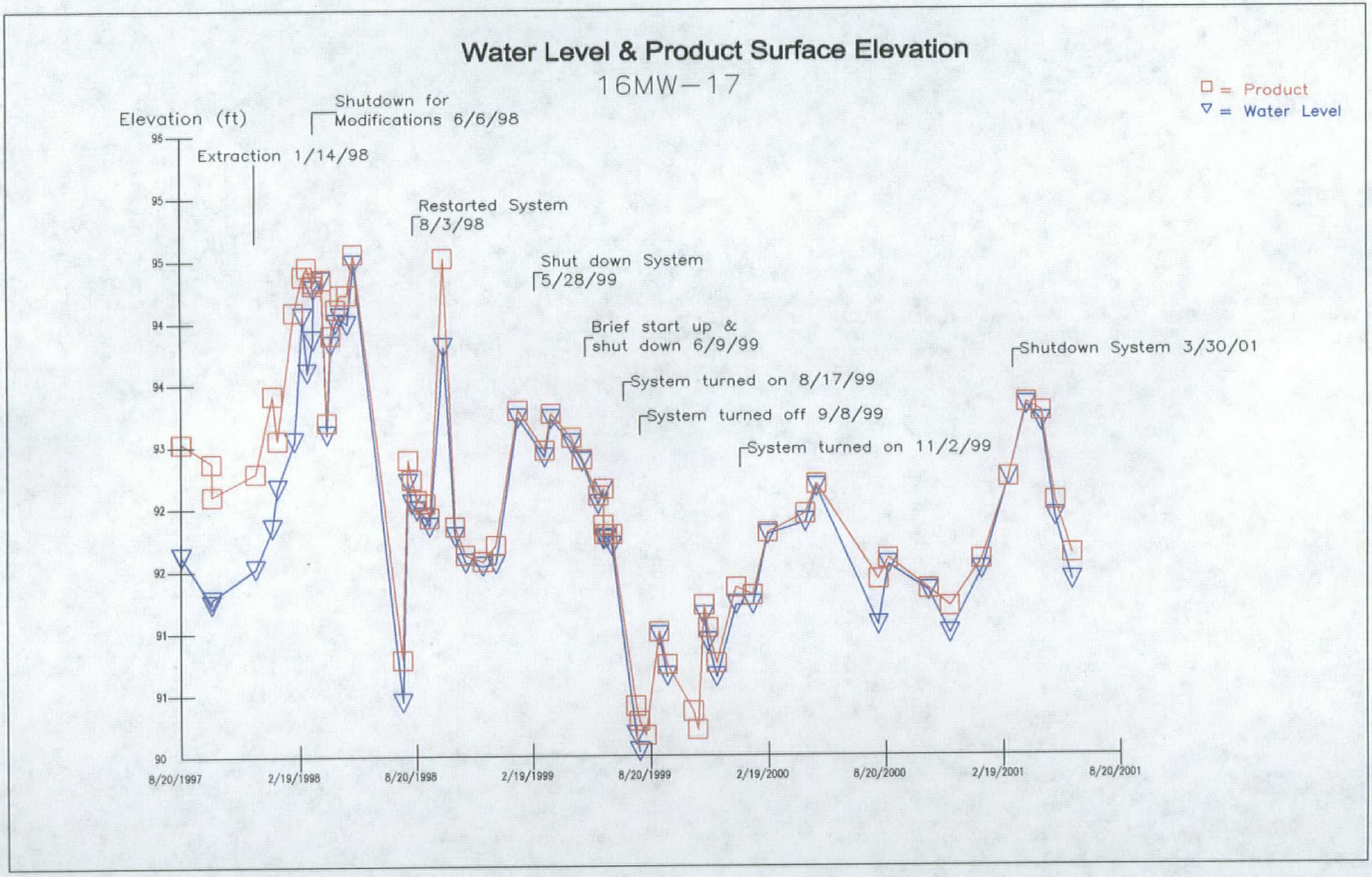
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-17
□ = Product
▽ = Water Level
Elevation (ft)
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
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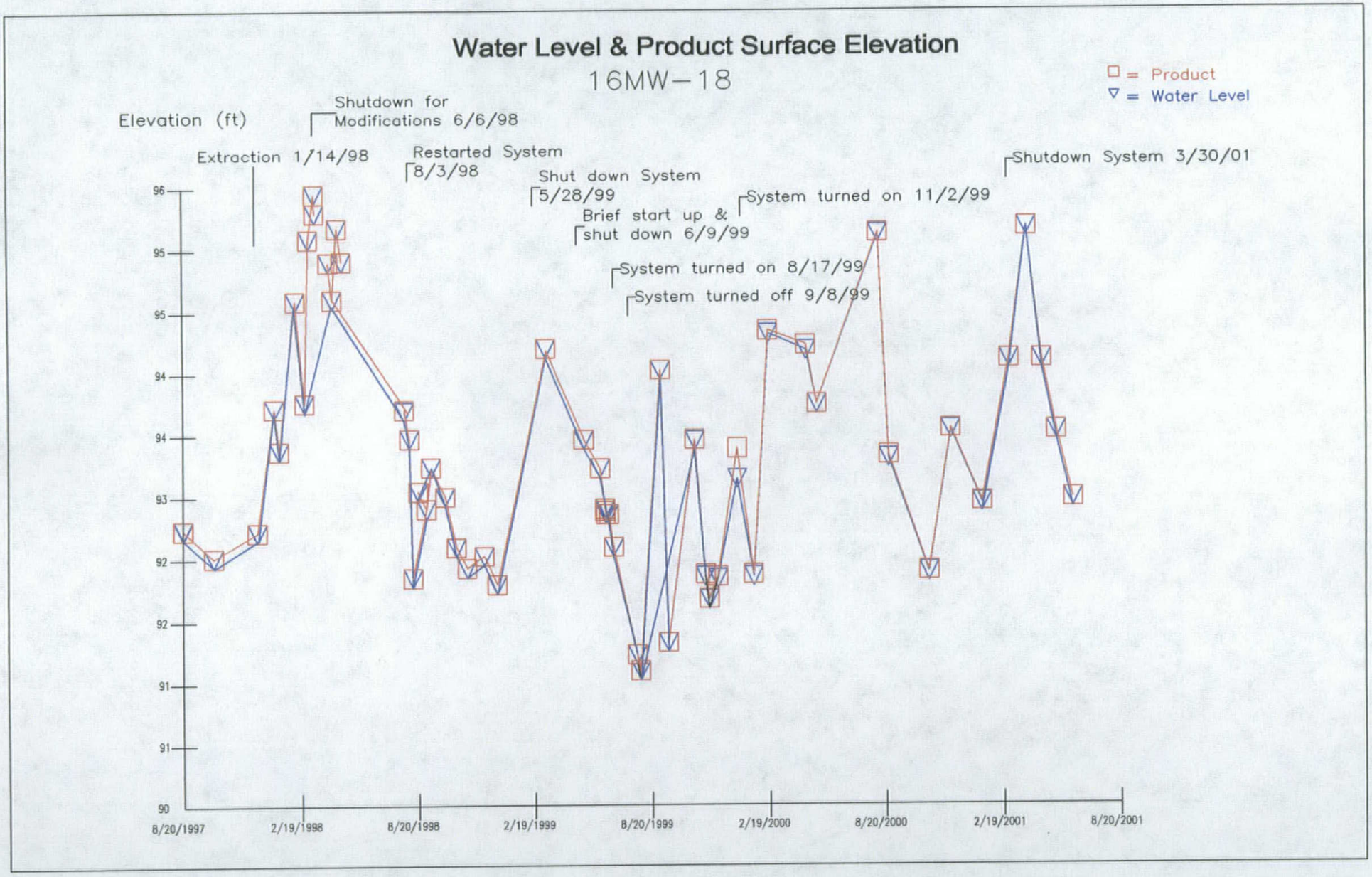
8/20/2001


Water Level & Product Surface Elevation
16MW-18
□ = Product
▽ = Water Level
Elevation (ft)
Extraction 1/14/98
Shutdown for Modifications 6/6/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
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8/20/1998
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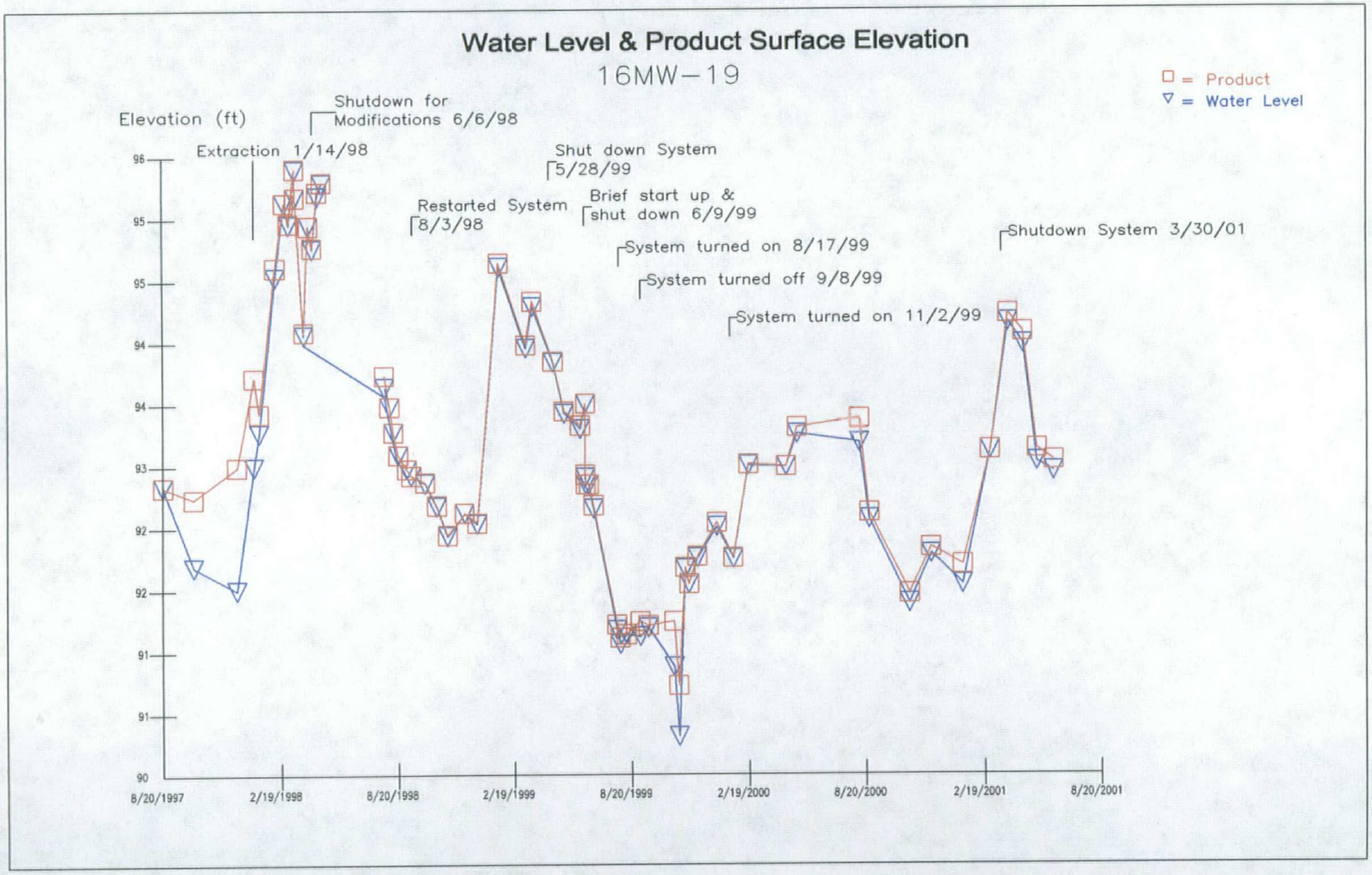
8/20/2000
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-19
□ = Product
▽ = Water Level
Elevation (ft)
Extraction 1/14/98
Shutdown for Modifications 6/6/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
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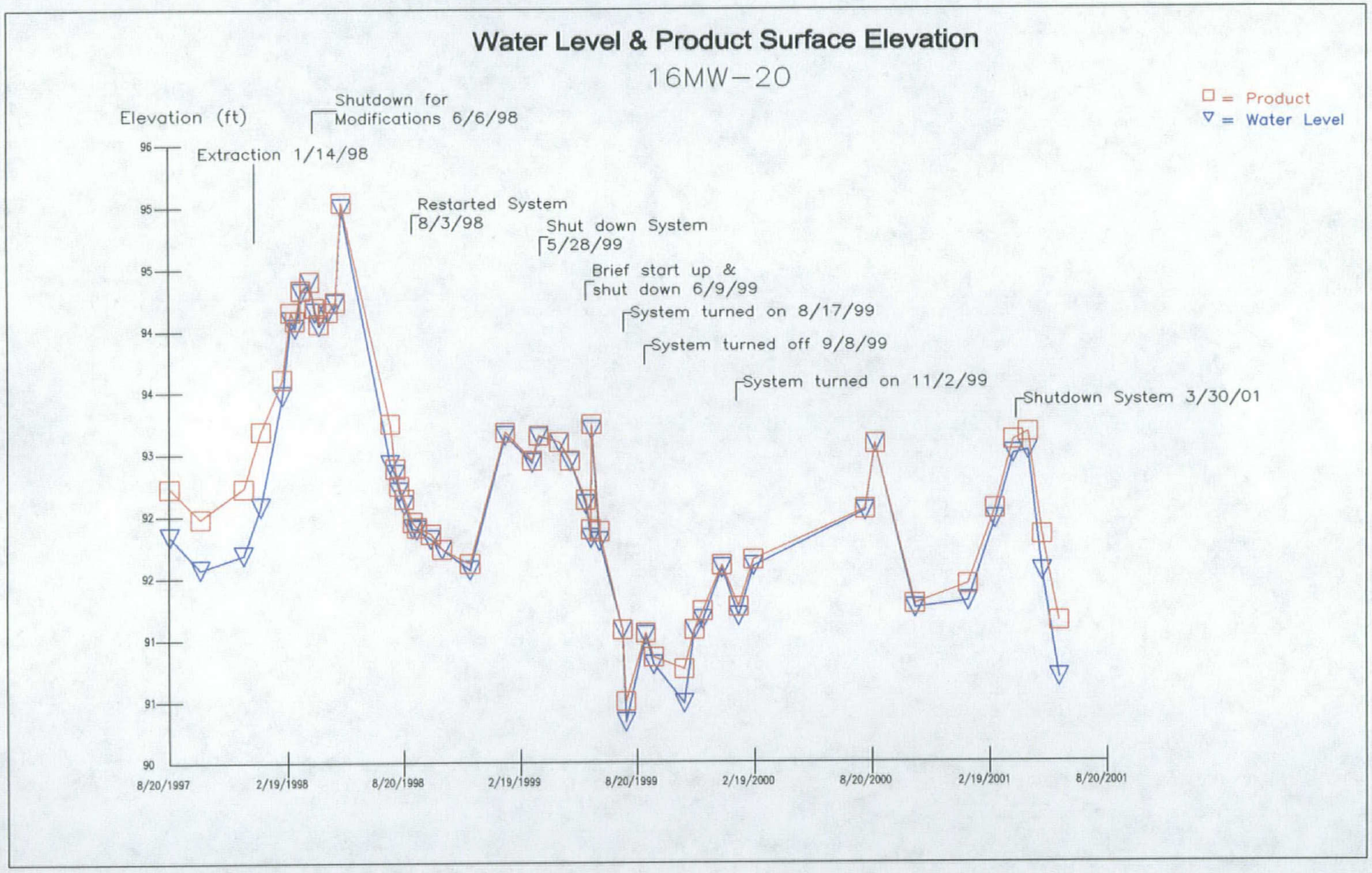
8/20/2000
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-20
Elevation (ft)
□ = Product
▽ = Water Level
Extraction 1/14/98
Shutdown for Modifications 6/6/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
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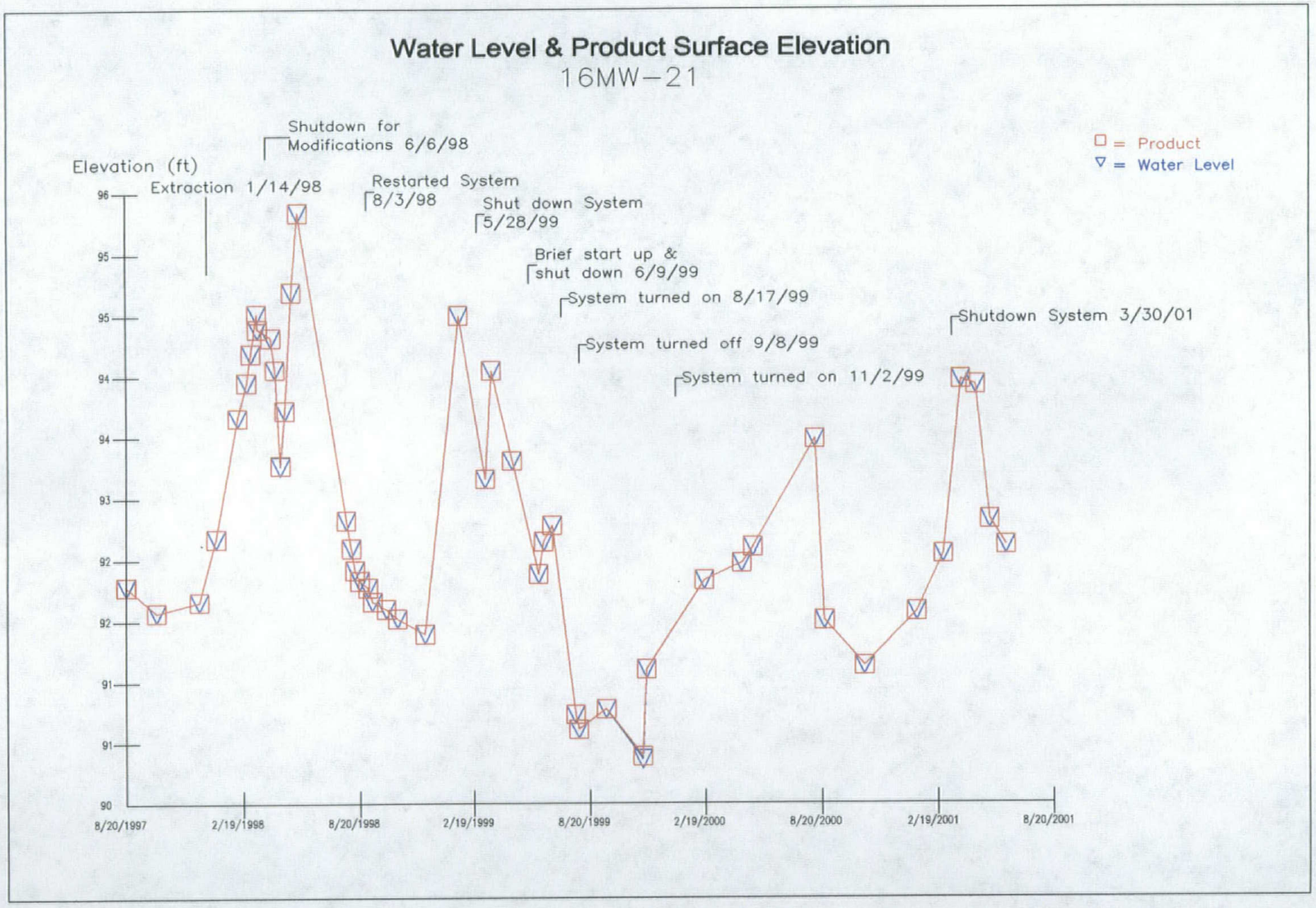
8/20/2001


Water Level & Product Surface Elevation
16MW-21
Elevation (ft)
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
□ = Product
▽ = Water Level
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8/20/1998
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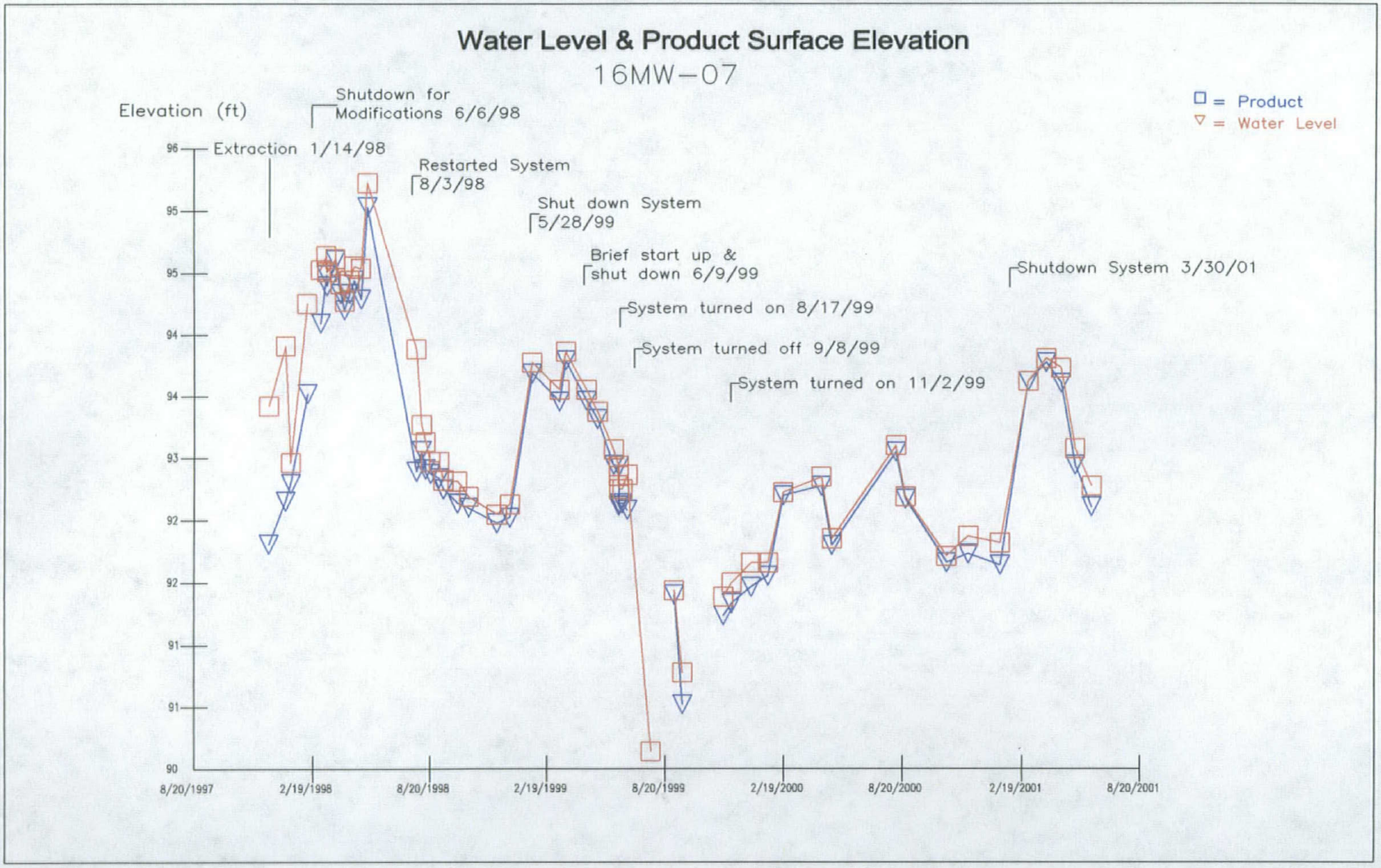
2/19/2001
8/20/2001


Water Level & Product Surface Elevation
16MW-07
Elevation (ft)
Shutdown for Modifications 6/6/98
Extraction 1/14/98
Restarted System 8/3/98
Shut down System 5/28/99
Brief start up & shut down 6/9/99
System turned on 8/17/99
System turned off 9/8/99
System turned on 11/2/99
Shutdown System 3/30/01
□ = Product
▽ = Water Level
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8/20/2000
2/19/2001
8/20/2001

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-04	8/20/1997	101.23	11:34	11.93	0.58	89.31	NA	89.80
16MW-04	12/12/1997	101.23	00:00	9.19	0.79	92.04	2.74	92.71
16MW-04	1/7/1998	101.23	11:02	8.74	1.04	92.49	0.45	93.38
16MW-04	2/10/1998	101.23	00:00	7.98	0.94	93.26	0.76	94.05
16MW-04	2/24/1998	101.23	00:00	7.09	0.57	94.15	0.89	94.63
16MW-04	3/3/1998	101.23	00:00	7.45	1.00	93.78	-0.37	94.63
16MW-04	3/12/1998	101.23	00:00	6.95	0.89	94.29	0.51	95.04
16MW-04	3/13/1998	101.23	00:00	7.00	0.72	94.23	-0.05	94.84
16MW-04	3/26/1998	101.23	00:00	6.60	0.05	94.63	0.40	94.67
16MW-04	4/3/1998	101.23	00:00	7.07	0.45	94.17	-0.46	94.54
16MW-04	4/9/1998	101.23	00:00	6.86	0.01	94.37	0.20	94.38
16MW-04	4/17/1998	101.23	00:00	6.94	0.04	94.29	-0.08	94.32
16MW-04	4/24/1998	101.23	00:00	5.03	0.58	96.20	1.91	96.69
16MW-04	5/5/1998	101.23	00:00	6.94	0.49	94.29	-1.90	94.78
16MW-04	5/15/1998	101.23	00:00	6.24	0.65	94.99	0.69	95.54
16MW-04	7/30/1998	101.23	00:00	7.70	0.82	93.53	-1.46	94.23
16MW-04	8/7/1998	101.23	00:00	8.36	0.27	92.87	-0.66	93.10
16MW-04	8/13/1998	101.23	00:00	8.44	0.02	92.79	-0.08	92.81
16MW-04	8/21/1998	101.23	00:00	8.63	0.19	92.60	-0.19	92.76
16MW-04	9/3/1998	101.23	00:00	9.25	0.23	91.98	-0.62	92.18
16MW-04	9/10/1998	101.23	00:00	8.85	0.24	92.38	0.40	92.58
16MW-04	10/2/1998	101.23	00:00	9.03	0.21	92.20	-0.18	92.38
16MW-04	10/20/1998	101.23	00:00	9.07	0.26	92.16	-0.04	92.38
16MW-04	11/6/1998	101.23	00:00	9.17	0.16	92.06	-0.10	92.19
16MW-04	12/3/1998	101.23	00:00	9.23	0.24	92.01	-0.05	92.21
16MW-04	12/23/1998	101.23	00:00	9.15	0.08	92.08	0.07	92.15
16MW-04	1/26/1999	101.23	00:00	8.04	0.08	93.20	1.12	93.26
16MW-04	3/3/1999	101.23	00:00	8.31	0.06	92.92	-0.28	92.97
16MW-04	3/9/1999	101.23	00:00	8.22	0.02	93.01	0.09	93.03
16MW-04	3/19/1999	101.23	00:00	8.04	0.12	93.19	0.18	93.29
16MW-04	4/20/1999	101.23	00:00	8.04	0.14	93.19	0.00	93.31
16MW-04	5/7/1999	101.23	00:00	8.28	0.08	92.95	-0.24	93.02
16MW-04	6/9/1999	101.23	00:00	8.99	0.00	92.24	-0.71	92.24
16MW-04	6/9/1999	101.23	00:01	8.95	0.27	92.28	0.04	92.51
16MW-04	6/22/1999	101.23	08:55	8.89	0.19	92.34	0.06	92.50
16MW-04	7/29/1999	101.23	00:00	10.43	0.20	90.80	-1.54	90.97
16MW-04	8/3/1999	101.23	00:00	10.51	0.20	90.72	-0.08	90.89
16MW-04	8/13/1999	101.23	00:00	10.62	0.20	90.61	-0.11	90.78
16MW-04	9/3/1999	101.23	00:00	9.80	0.04	91.43	0.82	91.46

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-04	9/15/1999	101.23	13:35	10.34	0.16	90.89	-0.54	91.03
16MW-04	10/26/1999	101.23	00:00	10.30	0.36	90.93	0.04	91.23
16MW-04	11/2/1999	101.23	00:00	10.60	0.39	90.63	-0.30	90.96
16MW-04	11/12/1999	101.23	00:00	10.05	0.21	91.18	0.55	91.36
16MW-04	11/18/1999	101.23	00:00	10.39	0.27	90.84	-0.34	91.07
16MW-04	12/1/1999	101.23	00:00	9.60	0.26	91.63	0.79	91.85
16MW-04	12/31/1999	101.23	00:00	10.03	0.29	91.20	-0.43	91.45
16MW-04	1/26/2000	101.23	00:00	10.04	0.22	91.19	-0.01	91.38
16MW-04	2/18/2000	101.23	00:00	9.44	0.15	91.79	0.60	91.92
16MW-04	4/17/2000	101.23	00:00	9.10	0.53	92.13	0.34	92.58
16MW-04	5/4/2000	101.23	00:00	8.42	0.16	92.81	0.68	92.95
16MW-04	8/9/2000	101.23	00:00	10.00	0.42	91.23	-1.58	91.59
16MW-04	8/24/2000	101.23	00:00	9.91	0.26	91.32	0.09	91.54
16MW-04	11/28/2000	101.23	00:00	9.30	0.07	91.93	0.61	91.99
16MW-04	1/16/2001	101.23	00:00	9.10	0.04	92.13	0.20	92.16
16MW-04	2/27/2001	101.23	00:00	8.61	0.00	92.62	0.49	92.62
16MW-04	3/27/2001	101.23	00:00	8.25	0.30	92.98	0.36	93.24
16MW-04	4/19/2001	101.23	00:00	9.17	0.44	92.06	-0.92	92.44
16MW-04	5/11/2001	101.23	00:00	9.76	0.45	91.47	-0.59	91.86
16MW-04	6/6/2001	101.23	00:00	9.89	0.41	91.34	-0.13	91.69
16MW-13	8/20/1997	100.97	00:00	8.50	0.80	92.47	NA	93.15
16MW-13	8/20/1997	100.97	08:45	8.50	0.80	92.47	0.00	93.15
16MW-13	10/6/1997	100.97	10:45	8.86	0.75	92.11	-0.36	92.75
16MW-13	12/12/1997	100.97	08:30	8.57	0.65	92.41	0.29	92.96
16MW-13	1/7/1998	100.97	09:35	8.03	0.73	92.94	0.54	93.56
16MW-13	1/15/1998	100.97	07:30	8.06	0.75	92.92	-0.03	93.55
16MW-13	2/10/1998	100.97	00:00	7.39	0.88	93.59	0.67	94.33
16MW-13	2/24/1998	100.97	00:00	6.67	0.72	94.30	0.72	94.91
16MW-13	3/3/1998	100.97	00:00	6.90	1.04	94.07	-0.23	94.96
16MW-13	3/12/1998	100.97	00:00	6.60	1.03	94.38	0.31	95.25
16MW-13	3/13/1998	100.97	00:00	6.61	0.81	94.37	-0.01	95.05
16MW-13	3/26/1998	100.97	00:00	6.14	0.30	94.83	0.46	95.09
16MW-13	4/3/1998	100.97	00:00	6.47	0.42	94.50	-0.33	94.86
16MW-13	4/9/1998	100.97	00:00	6.54	0.27	94.43	-0.07	94.66
16MW-13	4/17/1998	100.97	00:00	6.41	0.18	94.56	0.13	94.71
16MW-13	4/24/1998	100.97	00:00	6.44	0.58	94.54	-0.03	95.03
16MW-13	5/5/1998	100.97	00:00	7.19	0.55	93.78	-0.76	94.33
16MW-13	5/15/1998	100.97	00:00	5.55	0.52	95.43	1.65	95.94

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-13	7/30/1998	100.97	00:00	7.80	0.82	93.17	-2.25	93.87
16MW-13	8/7/1998	100.97	00:00	7.78	0.26	93.19	0.02	93.41
16MW-13	8/13/1998	100.97	00:00	7.94	0.14	93.03	-0.16	93.15
16MW-13	8/21/1998	100.97	00:00	8.03	0.27	92.94	-0.09	93.17
16MW-13	9/3/1998	100.97	00:00	8.09	0.20	92.88	-0.06	93.05
16MW-13	9/10/1998	100.97	00:00	8.26	0.15	92.71	-0.17	92.84
16MW-13	10/2/1998	100.97	00:00	8.41	0.27	92.56	-0.15	92.79
16MW-13	10/20/1998	100.97	00:00	8.46	0.14	92.51	-0.05	92.63
16MW-13	11/6/1998	100.97	00:00	8.61	0.14	92.37	-0.15	92.48
16MW-13	12/3/1998	100.97	00:00	8.64	0.11	92.34	-0.03	92.42
16MW-13	12/23/1998	100.97	00:00	8.69	0.20	92.28	-0.06	92.45
16MW-13	1/26/1999	100.97	00:00	7.55	0.18	93.42	1.14	93.57
16MW-13	3/3/1999	100.97	00:00	7.80	0.11	93.17	-0.25	93.26
16MW-13	3/9/1999	100.97	00:00	7.74	0.14	93.23	0.06	93.35
16MW-13	3/19/1999	100.97	00:00	7.51	0.16	93.47	0.24	93.60
16MW-13	4/20/1999	100.97	00:00	7.57	0.15	93.41	-0.06	93.53
16MW-13	5/7/1999	100.97	00:00	8.05	0.14	92.93	-0.48	93.04
16MW-13	6/9/1999	100.97	00:00	7.75	0.01	93.23	0.30	93.23
16MW-13	6/9/1999	100.97	00:01	8.48	0.44	92.49	-0.74	92.87
16MW-13	6/10/1999	100.97	00:00	8.91	0.10	92.06	-0.43	92.14
16MW-13	6/14/1999	100.97	13:05	8.91	0.10	92.06	0.00	92.14
16MW-13	6/22/1999	100.97	08:55	8.90	0.29	92.07	0.01	92.32
16MW-13	6/22/1999	100.97	09:45	8.90	0.29	92.07	0.00	92.32
16MW-13	7/29/1999	100.97	00:00	10.83	0.49	90.14	-1.93	90.56
16MW-13	8/3/1999	100.97	00:00	10.90	0.48	90.07	-0.07	90.48
16MW-13	8/13/1999	100.97	00:00	11.03	0.20	89.94	-0.13	90.11
16MW-13	9/3/1999	100.97	00:00	9.15	0.03	91.82	1.88	91.85
16MW-13	9/15/1999	100.97	13:30	9.41	0.05	91.56	-0.26	91.60
16MW-13	10/26/1999	100.97	00:00	10.24	0.50	90.73	-0.83	91.15
16MW-13	11/2/1999	100.97	00:00	10.47	0.52	90.50	-0.23	90.94
16MW-13	11/12/1999	100.97	00:00	10.07	0.37	90.90	0.40	91.21
16MW-13	11/18/1999	100.97	00:00	10.56	0.42	90.41	-0.49	90.76
16MW-13	12/1/1999	100.97	00:00	10.26	0.43	90.71	0.30	91.07
16MW-13	12/31/1999	100.97	00:00	10.12	0.47	90.85	0.14	91.25
16MW-13	1/26/2000	100.97	00:00	10.06	0.38	90.91	0.06	91.24
16MW-13	2/18/2000	100.97	00:00	8.94	0.16	92.03	1.12	92.17
16MW-13	4/17/2000	100.97	00:00	8.87	0.21	92.10	0.07	92.28
16MW-13	5/4/2000	100.97	00:00	7.94	0.10	93.03	0.93	93.12
16MW-13	8/9/2000	100.97	00:00	8.68	0.25	92.29	-0.74	92.50

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-13	8/24/2000	100.97	00:00	8.71	0.08	92.26	-0.03	92.33
16MW-13	10/26/2000	100.97	00:00	9.03	0.07	91.94	-0.32	92.00
16MW-13	11/28/2000	100.97	00:00	9.80	0.10	91.17	-0.77	91.26
16MW-13	1/16/2001	100.97	00:00	9.03	0.17	91.94	0.77	92.09
16MW-13	2/27/2001	100.97	00:00	8.05	0.04	92.92	0.98	92.95
16MW-13	3/27/2001	100.97	00:00	8.09	0.26	92.88	-0.04	93.10
16MW-13	4/19/2001	100.97	00:00	9.61	0.75	91.36	-1.52	92.00
16MW-13	5/11/2001	100.97	00:00	10.28	0.78	90.69	-0.67	91.36
16MW-13	6/6/2001	100.97	00:00	10.18	0.69	90.79	0.10	91.38
16MW-14	8/20/1997	100.66	00:00	8.16	0.83	92.50	NA	93.21
16MW-14	8/20/1997	100.66	08:48	8.24	0.80	92.42	-0.08	93.10
16MW-14	10/6/1997	100.66	10:45	8.63	0.99	92.03	-0.39	92.87
16MW-14	12/12/1997	100.66	08:30	9.18	0.79	91.48	-0.55	92.15
16MW-14	1/7/1998	100.66	09:49	7.94	0.86	92.72	1.24	93.45
16MW-14	1/7/1998	100.66	09:56	7.94	0.86	92.72	0.00	93.45
16MW-14	1/15/1998	100.66	07:30	7.71	0.64	92.96	0.24	93.50
16MW-14	2/10/1998	100.66	00:00	7.13	1.08	93.53	0.58	94.45
16MW-14	3/3/1998	100.66	00:00	6.40	0.84	94.27	0.73	94.98
16MW-14	3/12/1998	100.66	00:00	6.05	0.75	94.61	0.35	95.25
16MW-14	3/13/1998	100.66	00:00	6.29	0.29	94.37	-0.24	94.62
16MW-14	3/26/1998	100.66	00:00	5.60	0.03	95.06	0.69	95.09
16MW-14	4/3/1998	100.66	00:00	6.04	0.21	94.62	-0.44	94.80
16MW-14	4/9/1998	100.66	00:00	5.10	0.09	95.56	0.94	95.63
16MW-14	4/17/1998	100.66	00:00	5.77	0.10	94.90	-0.66	94.98
16MW-14	4/24/1998	100.66	00:00	6.19	0.55	94.48	-0.42	94.94
16MW-14	5/5/1998	100.66	00:00	6.03	0.46	94.63	0.16	95.02
16MW-14	5/15/1998	100.66	00:00	4.90	0.10	95.76	1.13	95.85
16MW-14	7/30/1998	100.66	00:00	7.49	0.85	93.17	-2.59	93.89
16MW-14	8/7/1998	100.66	00:00	7.23	0.06	93.43	0.27	93.48
16MW-14	8/13/1998	100.66	00:00	7.56	0.05	93.10	-0.33	93.14
16MW-14	8/21/1998	100.66	00:00	7.78	0.27	92.88	-0.22	93.11
16MW-14	9/3/1998	100.66	00:00	7.81	0.16	92.85	-0.03	92.99
16MW-14	9/10/1998	100.66	00:00	7.96	0.15	92.70	-0.15	92.83
16MW-14	10/2/1998	100.66	00:00	8.07	0.18	92.59	-0.11	92.74
16MW-14	10/20/1998	100.66	00:00	8.17	0.14	92.50	-0.09	92.61
16MW-14	11/6/1998	100.66	00:00	8.31	0.12	92.36	-0.14	92.45
16MW-14	12/3/1998	100.66	00:00	8.34	0.13	92.33	-0.03	92.43
16MW-14	12/23/1998	100.66	00:00	8.90	0.14	91.76	-0.57	91.88

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-14	1/26/1999	100.66	00:00	7.17	0.15	93.49	1.73	93.62
16MW-14	3/3/1999	100.66	00:00	8.04	0.13	92.63	-0.87	92.73
16MW-14	3/9/1999	100.66	00:00	7.34	0.04	93.32	0.70	93.35
16MW-14	3/19/1999	100.66	00:00	7.15	0.09	93.52	0.19	93.59
16MW-14	4/20/1999	100.66	00:00	7.25	0.11	93.41	-0.11	93.50
16MW-14	5/7/1999	100.66	00:00	7.74	0.01	92.92	-0.49	92.93
16MW-14	6/1/1999	100.66	00:00	7.83	0.22	92.83	-0.09	93.01
16MW-14	6/9/1999	100.66	00:00	7.64	0.00	93.02	0.19	93.02
16MW-14	6/9/1999	100.66	00:01	8.13	0.30	92.53	-0.49	92.78
16MW-14	6/10/1999	100.66	00:00	8.10	0.13	92.56	0.03	92.67
16MW-14	6/14/1999	100.66	13:10	8.10	0.13	92.56	0.00	92.67
16MW-14	6/22/1999	100.66	09:00	8.95	0.25	91.71	-0.85	91.93
16MW-14	7/29/1999	100.66	00:00	10.25	0.38	90.41	-1.30	90.73
16MW-14	8/3/1999	100.66	00:00	10.40	0.40	90.26	-0.15	90.60
16MW-14	8/13/1999	100.66	00:00	10.46	0.39	90.20	-0.06	90.53
16MW-14	9/3/1999	100.66	00:00	8.85	0.03	91.81	1.61	91.84
16MW-14	9/15/1999	100.66	13:40	9.29	0.09	91.37	-0.44	91.45
16MW-14	10/26/1999	100.66	00:00	10.20	0.57	90.46	-0.91	90.95
16MW-14	11/2/1999	100.66	00:00	10.26	0.53	90.40	-0.06	90.85
16MW-14	11/12/1999	100.66	00:00	9.60	0.15	91.06	0.66	91.19
16MW-14	11/18/1999	100.66	00:00	9.82	0.18	90.84	-0.22	90.99
16MW-14	12/1/1999	100.66	00:00	9.70	0.35	90.96	0.12	91.26
16MW-14	12/31/1999	100.66	00:00	9.50	0.38	91.16	0.20	91.48
16MW-14	1/26/2000	100.66	00:00	9.44	0.29	91.22	0.06	91.46
16MW-14	2/18/2000	100.66	00:00	8.93	0.24	91.73	0.51	91.94
16MW-14	4/17/2000	100.66	00:00	8.42	0.17	92.24	0.51	92.38
16MW-14	5/4/2000	100.66	00:00	NM	NA	NA	NA	NA
16MW-14	8/9/2000	100.66	00:00	8.40	0.22	92.26	-8.40	92.45
16MW-14	8/24/2000	100.66	00:00	5.56	0.01	95.10	2.84	95.11
16MW-14	10/26/2000	100.66	00:00	8.83	0.07	91.83	-3.27	91.89
16MW-14	11/28/2000	100.66	00:00	9.35	0.19	91.31	-0.52	91.47
16MW-14	1/16/2001	100.66	00:00	9.30	0.29	91.36	0.05	91.61
16MW-14	2/27/2001	100.66	00:00	7.62	0.00	93.04	1.68	93.04
16MW-14	4/19/2001	100.66	00:00	7.05	0.20	93.61	0.57	93.78
16MW-14	5/11/2001	100.66	00:00	9.17	0.33	91.49	-2.12	91.77
16MW-14	6/6/2001	100.66	00:00	9.84	0.52	90.82	-0.67	91.26
16MW-15	8/20/1997	100.98	00:00	8.80	0.90	92.18	NA	92.95
16MW-15	8/20/1997	100.98	08:55	8.80	0.90	92.18	0.00	92.95

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-15	8/20/1997	100.98	09:12	8.80	0.90	92.18	0.00	92.95
16MW-15	10/6/1997	100.98	10:45	9.18	0.93	91.80	-0.39	92.59
16MW-15	12/12/1997	100.98	08:30	9.19	0.93	91.80	0.00	92.58
16MW-15	1/7/1998	100.98	10:05	8.57	1.27	92.41	0.62	93.49
16MW-15	1/15/1998	100.98	07:30	8.36	0.84	92.62	0.21	93.34
16MW-15	2/10/1998	100.98	00:00	7.92	1.50	93.07	0.45	94.34
16MW-15	3/3/1998	100.98	00:00	7.38	1.38	93.61	0.54	94.78
16MW-15	3/12/1998	100.98	00:00	6.93	1.19	94.05	0.45	95.06
16MW-15	3/13/1998	100.98	00:00	6.79	0.61	94.20	0.15	94.71
16MW-15	4/3/1998	100.98	00:00	6.77	0.42	94.22	0.02	94.57
16MW-15	4/9/1998	100.98	00:00	6.79	0.14	94.20	-0.02	94.31
16MW-15	4/17/1998	100.98	00:00	6.63	0.06	94.36	0.16	94.40
16MW-15	4/24/1998	100.98	00:00	6.72	0.58	94.26	-0.09	94.76
16MW-15	5/5/1998	100.98	00:00	6.73	0.59	94.25	-0.01	94.84
16MW-15	5/15/1998	100.98	00:00	6.12	0.36	94.86	0.61	95.17
16MW-15	7/30/1998	100.98	00:00	8.19	0.92	92.79	-2.07	93.57
16MW-15	8/7/1998	100.98	00:00	8.14	0.31	92.84	0.06	93.10
16MW-15	8/13/1998	100.98	00:00	8.26	0.17	92.72	-0.12	92.87
16MW-15	8/21/1998	100.98	00:00	8.41	0.27	92.57	-0.15	92.80
16MW-15	9/3/1998	100.98	00:00	8.46	0.22	92.52	-0.05	92.71
16MW-15	9/10/1998	100.98	00:00	8.59	0.18	92.40	-0.13	92.54
16MW-15	10/2/1998	100.98	00:00	8.69	0.21	92.30	-0.10	92.47
16MW-15	10/20/1998	100.98	00:00	8.77	0.16	92.21	-0.09	92.35
16MW-15	11/6/1998	100.98	00:00	8.87	0.06	92.11	-0.10	92.16
16MW-15	12/3/1998	100.98	00:00	8.93	0.12	92.06	-0.05	92.15
16MW-15	12/23/1998	100.98	00:00	8.54	0.11	92.44	0.39	92.53
16MW-15	1/26/1999	100.98	00:00	7.75	0.13	93.24	0.80	93.34
16MW-15	3/3/1999	100.98	00:00	7.46	0.11	93.53	0.29	93.61
16MW-15	3/9/1999	100.98	00:00	8.30	0.40	92.68	-0.85	93.02
16MW-15	3/19/1999	100.98	00:00	7.77	0.15	93.21	0.53	93.34
16MW-15	4/20/1999	100.98	00:00	7.88	0.14	93.10	-0.11	93.22
16MW-15	6/1/1999	100.98	00:00	8.40	0.17	92.58	-0.52	92.73
16MW-15	6/9/1999	100.98	00:00	7.95	0.00	93.03	0.45	93.03
16MW-15	6/9/1999	100.98	00:01	8.70	0.23	92.29	-0.74	92.48
16MW-15	6/10/1999	100.98	00:00	8.68	0.11	92.30	0.02	92.39
16MW-15	6/14/1999	100.98	13:15	8.69	0.11	92.29	-0.01	92.38
16MW-15	6/22/1999	100.98	09:00	8.74	0.21	92.24	-0.05	92.42
16MW-15	7/29/1999	100.98	00:00	10.61	0.33	90.37	-1.87	90.65
16MW-15	8/13/1999	100.98	00:00	10.98	0.36	90.00	-0.37	90.31

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-15	9/3/1999	100.98	00:00	9.44	0.04	91.54	1.54	91.57
16MW-15	9/15/1999	100.98	13:45	9.46	0.12	91.52	-0.02	91.62
16MW-15	10/26/1999	100.98	00:00	10.65	0.53	90.33	-1.19	90.78
16MW-15	11/2/1999	100.98	00:00	10.93	0.57	90.05	-0.28	90.54
16MW-15	11/12/1999	100.98	00:00	9.70	0.34	91.28	1.23	91.57
16MW-15	11/18/1999	100.98	00:00	9.81	0.35	91.17	-0.11	91.47
16MW-15	12/1/1999	100.98	00:00	9.60	0.16	91.38	0.21	91.52
16MW-15	12/31/1999	100.98	00:00	9.48	0.21	91.50	0.12	91.68
16MW-15	1/26/2000	100.98	00:00	9.50	0.14	91.48	-0.02	91.60
16MW-15	2/18/2000	100.98	00:00	8.91	0.07	92.07	0.59	92.13
16MW-15	4/17/2000	100.98	00:00	8.83	0.12	92.15	0.08	92.25
16MW-15	5/4/2000	100.98	00:00	8.25	0.07	92.73	0.58	92.79
16MW-15	8/9/2000	100.98	00:00	9.17	0.27	91.81	-0.92	92.04
16MW-15	8/24/2000	100.98	13:50	9.05	0.09	91.93	0.12	92.00
16MW-15	10/26/2000	100.98	00:00	9.35	0.08	91.63	-0.30	91.69
16MW-15	11/28/2000	100.98	00:00	8.90	0.10	92.08	0.45	92.17
16MW-15	1/16/2001	100.98	00:00	9.00	0.09	91.98	-0.10	92.06
16MW-15	2/27/2001	100.98	00:00	8.17	0.00	92.81	0.83	92.81
16MW-15	3/27/2001	100.98	00:00	7.65	0.06	93.33	0.52	93.38
16MW-15	4/19/2001	100.98	00:00	7.98	0.75	93.00	-0.33	93.64
16MW-15	5/11/2001	100.98	00:00	9.33	0.41	91.65	-1.35	92.00
16MW-15	6/6/2001	100.98	00:00	10.06	0.55	90.92	-0.73	91.39
16MW-16	8/20/1997	98.82	00:00	6.77	0.08	92.05	NA	92.12
16MW-16	8/20/1997	98.82	09:12	6.77	0.08	92.05	0.00	92.12
16MW-16	10/6/1997	98.82	10:45	7.13	0.36	91.70	-0.36	92.00
16MW-16	12/12/1997	98.82	08:30	7.29	1.20	91.53	-0.17	92.55
16MW-16	1/7/1998	98.82	10:10	6.94	1.15	91.88	0.35	92.86
16MW-16	1/15/1998	98.82	07:30	6.15	0.56	92.67	0.79	93.15
16MW-16	2/10/1998	98.82	00:00	5.90	0.49	92.92	0.25	93.34
16MW-16	2/24/1998	98.82	00:00	3.90	0.05	94.92	2.00	94.96
16MW-16	3/3/1998	98.82	00:00	5.18	0.17	93.64	-1.28	93.78
16MW-16	3/12/1998	98.82	00:00	4.73	0.03	94.09	0.46	94.12
16MW-16	3/13/1998	98.82	00:00	5.05	0.02	93.77	-0.33	93.79
16MW-16	3/26/1998	98.82	00:00	4.39	0.01	94.43	0.66	94.44
16MW-16	4/3/1998	98.82	00:00	5.13	0.01	93.69	-0.74	93.70
16MW-16	4/9/1998	98.82	00:00	5.28	0.02	93.54	-0.15	93.56
16MW-16	4/17/1998	98.82	00:00	5.17	0.14	93.65	0.11	93.77
16MW-16	4/24/1998	98.82	00:00	5.06	0.08	93.77	0.12	93.83

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-16	5/5/1998	98.82	00:00	5.10	0.08	93.73	-0.04	93.80
16MW-16	5/15/1998	98.82	00:00	3.93	0.11	94.89	1.17	94.98
16MW-16	7/30/1998	98.82	00:00	6.47	0.39	92.35	-2.54	92.68
16MW-16	8/7/1998	98.82	00:00	6.50	0.14	92.32	-0.03	92.44
16MW-16	8/13/1998	98.82	00:00	6.70	0.17	92.12	-0.20	92.26
16MW-16	8/21/1998	98.82	00:00	6.77	0.07	92.05	-0.07	92.11
16MW-16	9/3/1998	98.82	00:00	6.74	0.04	92.08	0.03	92.11
16MW-16	9/10/1998	98.82	00:00	6.89	0.04	91.93	-0.15	91.96
16MW-16	10/2/1998	98.82	00:00	6.98	0.08	91.84	-0.09	91.91
16MW-16	10/20/1998	98.82	00:00	7.04	0.04	91.78	-0.06	91.81
16MW-16	11/6/1998	98.82	00:00	7.15	0.03	91.67	-0.11	91.69
16MW-16	12/3/1998	98.82	00:00	7.14	0.04	91.69	0.02	91.72
16MW-16	12/23/1998	98.82	00:00	7.09	0.06	91.73	0.05	91.78
16MW-16	1/26/1999	98.82	00:00	5.96	0.01	92.86	1.13	92.87
16MW-16	3/19/1999	98.82	00:00	5.84	0.01	92.99	0.12	92.99
16MW-16	4/20/1999	98.82	00:00	6.02	0.01	92.80	-0.19	92.81
16MW-16	5/7/1999	98.82	00:00	6.23	0.01	92.59	-0.21	92.60
16MW-16	6/1/1999	98.82	00:00	6.66	0.10	92.16	-0.43	92.24
16MW-16	6/9/1999	98.82	00:00	6.15	0.00	92.67	0.51	92.67
16MW-16	6/9/1999	98.82	00:01	7.01	0.16	91.81	-0.86	91.94
16MW-16	6/10/1999	98.82	00:00	6.98	0.03	91.85	0.04	91.87
16MW-16	6/14/1999	98.82	13:40	6.98	0.03	91.85	0.00	91.87
16MW-16	6/22/1999	98.82	09:30	6.90	0.10	91.92	0.08	92.00
16MW-16	7/29/1999	98.82	00:00	8.62	0.23	90.20	-1.72	90.39
16MW-16	8/3/1999	98.82	00:00	8.80	0.25	90.02	-0.18	90.23
16MW-16	8/13/1999	98.82	00:00	8.97	0.27	89.85	-0.17	90.08
16MW-16	9/3/1999	98.82	00:00	8.35	0.20	90.47	0.62	90.64
16MW-16	9/15/1999	98.82	14:20	8.10	0.09	90.72	0.25	90.79
16MW-16	10/26/1999	98.82	00:00	8.00	0.30	90.82	0.10	91.08
16MW-16	11/2/1999	98.82	00:00	8.22	0.31	90.60	-0.22	90.86
16MW-16	11/12/1999	98.82	00:00	7.30	0.03	91.52	0.92	91.54
16MW-16	11/18/1999	98.82	00:00	7.57	0.04	91.25	-0.27	91.29
16MW-16	12/1/1999	98.82	00:00	7.51	0.08	91.31	0.06	91.38
16MW-16	12/31/1999	98.82	00:00	7.44	0.04	91.38	0.07	91.41
16MW-16	1/26/2000	98.82	00:00	7.37	0.04	91.45	0.07	91.49
16MW-16	2/18/2000	98.82	00:00	6.85	0.01	91.97	0.52	91.98
16MW-16	4/17/2000	98.82	00:00	6.59	0.02	92.23	0.26	92.25
16MW-16	8/9/2000	98.82	00:00	6.46	0.17	92.36	0.13	92.51
16MW-16	8/24/2000	98.82	13:50	O	NA	NA	NA	NA

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-16	10/26/2000	98.82	00:00	7.40	0.13	91.42	-7.40	91.53
16MW-16	11/28/2000	98.82	00:00	8.57	0.29	90.25	-1.17	90.49
16MW-16	1/16/2001	98.82	00:00	6.99	0.03	91.83	1.58	91.85
16MW-16	2/27/2001	98.82	00:00	6.26	0.00	92.56	0.73	92.56
16MW-16	3/27/2001	98.82	00:00	5.90	0.00	92.92	0.36	92.92
16MW-17	8/20/1997	99.79	00:00	7.77	1.04	92.03	NA	92.91
16MW-17	8/20/1997	99.79	09:07	7.77	1.04	92.03	0.00	92.91
16MW-17	10/6/1997	99.79	00:00	8.19	1.28	91.60	-0.43	92.69
16MW-17	10/6/1997	99.79	10:45	8.15	0.94	91.64	0.04	92.44
16MW-17	12/12/1997	99.79	08:30	7.88	0.88	91.92	0.28	92.66
16MW-17	1/7/1998	99.79	10:23	7.51	1.22	92.29	0.37	93.32
16MW-17	1/15/1998	99.79	07:30	7.14	0.44	92.65	0.37	93.03
16MW-17	2/10/1998	99.79	00:00	6.71	1.18	93.08	0.43	94.09
16MW-17	2/24/1998	99.79	00:00	5.58	0.38	94.22	1.13	94.54
16MW-17	3/3/1998	99.79	00:00	6.08	0.96	93.71	-0.50	94.53
16MW-17	3/12/1998	99.79	00:00	5.78	0.50	94.01	0.30	94.44
16MW-17	3/13/1998	99.79	00:00	5.33	0.08	94.47	0.45	94.53
16MW-17	3/26/1998	99.79	00:00	5.25	0.02	94.55	0.08	94.56
16MW-17	4/3/1998	99.79	00:00	6.65	0.11	93.14	-1.40	93.23
16MW-17	4/9/1998	99.79	00:00	5.84	0.10	93.96	0.81	94.04
16MW-17	4/17/1998	99.79	00:00	5.64	0.14	94.16	0.20	94.27
16MW-17	4/24/1998	99.79	00:00	5.58	0.21	94.22	0.06	94.39
16MW-17	5/5/1998	99.79	00:00	5.64	0.27	94.15	-0.07	94.42
16MW-17	5/15/1998	99.79	00:00	5.09	0.09	94.70	0.55	94.78
16MW-17	7/30/1998	99.79	00:00	9.09	0.39	90.70	-4.00	91.03
16MW-17	8/7/1998	99.79	00:00	7.09	0.21	92.70	2.00	92.88
16MW-17	8/13/1998	99.79	00:00	7.28	0.22	92.51	-0.19	92.70
16MW-17	8/21/1998	99.79	00:00	7.34	0.09	92.45	-0.06	92.52
16MW-17	9/3/1998	99.79	00:00	7.40	0.12	92.39	-0.06	92.49
16MW-17	9/10/1998	99.79	00:00	7.49	0.08	92.30	-0.09	92.37
16MW-17	10/2/1998	99.79	00:00	5.85	0.81	93.94	1.64	94.63
16MW-17	10/20/1998	99.79	00:00	7.58	0.09	92.21	-1.73	92.29
16MW-17	11/6/1998	99.79	00:00	7.82	0.07	91.97	-0.24	92.03
16MW-17	12/3/1998	99.79	00:00	7.86	0.05	91.94	-0.03	91.97
16MW-17	12/23/1998	99.79	00:00	7.84	0.18	91.96	0.02	92.10
16MW-17	1/26/1999	99.79	00:00	6.51	0.08	93.29	1.33	93.35
16MW-17	3/9/1999	99.79	00:00	6.86	0.06	92.93	-0.35	92.98
16MW-17	3/19/1999	99.79	00:00	6.52	0.06	93.28	0.34	93.32

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-17	4/20/1999	99.79	00:00	6.74	0.06	93.06	-0.22	93.10
16MW-17	5/7/1999	99.79	00:00	6.90	0.02	92.89	-0.17	92.91
16MW-17	6/1/1999	99.79	00:00	7.29	0.08	92.50	-0.39	92.57
16MW-17	6/9/1999	99.79	00:00	7.15	0.00	92.64	0.14	92.64
16MW-17	6/9/1999	99.79	00:01	7.61	0.13	92.18	-0.46	92.29
16MW-17	6/10/1999	99.79	00:00	7.61	0.05	92.19	0.00	92.22
16MW-17	6/14/1999	99.79	13:30	7.61	0.05	92.19	0.00	92.22
16MW-17	6/22/1999	99.79	09:20	7.67	0.11	92.12	-0.07	92.22
16MW-17	7/29/1999	99.79	00:00	9.40	0.27	90.39	-1.73	90.62
16MW-17	8/3/1999	99.79	00:00	9.55	0.28	90.24	-0.15	90.48
16MW-17	8/13/1999	99.79	00:00	9.70	0.30	90.09	-0.15	90.35
16MW-17	9/3/1999	99.79	00:00	8.49	0.04	91.30	1.21	91.34
16MW-17	9/15/1999	99.79	14:05	8.86	0.11	90.93	-0.37	91.03
16MW-17	10/26/1999	99.79	00:00	9.81	0.63	89.98	-0.95	90.51
16MW-17	11/2/1999	99.79	00:00	9.99	0.64	89.80	-0.18	90.34
16MW-17	11/12/1999	99.79	00:00	8.31	0.10	91.48	1.68	91.57
16MW-17	11/18/1999	99.79	00:00	8.55	0.13	91.24	-0.24	91.35
16MW-17	12/1/1999	99.79	00:00	8.87	0.13	90.92	-0.32	91.03
16MW-17	12/31/1999	99.79	00:00	8.21	0.16	91.58	0.66	91.72
16MW-17	1/26/2000	99.79	00:00	8.21	0.09	91.58	0.00	91.66
16MW-17	2/18/2000	99.79	00:00	7.57	0.02	92.22	0.64	92.24
16MW-17	4/17/2000	99.79	00:00	7.46	0.08	92.33	0.11	92.40
16MW-17	5/4/2000	99.79	00:00	7.14	0.03	92.65	0.32	92.67
16MW-17	8/9/2000	99.79	00:00	8.40	0.42	91.39	-1.26	91.75
16MW-17	8/24/2000	99.79	00:00	7.85	0.06	91.94	0.55	91.99
16MW-17	10/26/2000	99.79	00:00	8.09	0.02	91.70	-0.24	91.72
16MW-17	11/28/2000	99.79	00:00	8.48	0.25	91.31	-0.39	91.53
16MW-17	1/16/2001	99.79	00:00	7.90	0.10	91.89	0.58	91.98
16MW-17	2/27/2001	99.79	00:00	7.05	0.00	92.74	0.85	92.74
16MW-17	3/27/2001	99.79	00:00	6.40	0.03	93.39	0.65	93.41
16MW-17	4/19/2001	99.79	00:00	6.55	0.10	93.24	-0.15	93.33
16MW-17	5/11/2001	99.79	00:00	7.42	0.15	92.37	-0.87	75.92
16MW-17	6/6/2001	99.79	00:00	8.00	0.25	91.79	-0.58	74.26
16MW-18	8/20/1997	100.69	00:00	7.96	0.00	92.73	NA	92.73
16MW-18	8/20/1997	100.69	09:03	7.96	0.00	92.73	0.00	92.73
16MW-18	10/6/1997	100.69	10:45	8.21	0.00	92.48	-0.25	92.48
16MW-18	12/12/1997	100.69	08:30	7.98	0.00	92.71	0.23	92.71
16MW-18	1/7/1998	100.69	10:30	6.85	0.00	93.84	1.13	93.84

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-18	1/15/1998	100.69	07:30	7.24	0.00	93.45	-0.39	93.45
16MW-18	2/10/1998	100.69	00:00	5.86	0.00	94.83	1.38	94.83
16MW-18	2/24/1998	100.69	00:00	6.80	0.00	93.89	-0.94	93.89
16MW-18	3/3/1998	100.69	00:00	5.30	0.00	95.39	1.50	95.39
16MW-18	3/12/1998	100.69	00:00	4.89	0.00	95.80	0.41	95.80
16MW-18	3/13/1998	100.69	00:00	5.06	0.00	95.63	-0.17	95.63
16MW-18	3/26/1998	100.69	00:00	4.78	0.00	95.91	0.28	95.91
16MW-18	4/3/1998	100.69	00:00	5.51	0.00	95.18	-0.73	95.18
16MW-18	4/9/1998	100.69	00:00	5.85	0.00	94.84	-0.34	94.84
16MW-18	4/17/1998	100.69	00:00	5.20	0.00	95.49	0.65	95.49
16MW-18	4/24/1998	100.69	00:00	5.50	0.00	95.19	-0.30	95.19
16MW-18	5/5/1998	100.69	00:00	4.40	0.00	96.29	1.10	96.29
16MW-18	5/15/1998	100.69	00:00	3.85	0.00	96.84	0.55	96.84
16MW-18	7/30/1998	100.69	00:00	6.88	0.02	93.81	-3.03	93.83
16MW-18	8/7/1998	100.69	00:00	7.13	0.00	93.56	-0.26	93.56
16MW-18	8/13/1998	100.69	00:00	8.40	0.00	92.29	-1.27	92.29
16MW-18	8/21/1998	100.69	00:00	7.61	0.00	93.08	0.79	93.08
16MW-18	9/3/1998	100.69	00:00	7.77	0.00	92.92	-0.16	92.92
16MW-18	9/10/1998	100.69	00:00	7.39	0.00	93.30	0.38	93.30
16MW-18	10/2/1998	100.69	00:00	7.66	0.00	93.03	-0.27	93.03
16MW-18	10/20/1998	100.69	00:00	8.12	0.00	92.57	-0.46	92.57
16MW-18	11/6/1998	100.69	00:00	8.31	0.00	92.38	-0.19	92.38
16MW-18	12/3/1998	100.69	00:00	8.20	0.00	92.49	0.11	92.49
16MW-18	12/23/1998	100.69	00:00	8.47	0.01	92.23	-0.27	92.23
16MW-18	1/26/1999	100.69	00:00	4.36	0.00	96.33	4.11	96.33
16MW-18	3/9/1999	100.69	00:00	6.30	0.00	94.39	-1.94	94.39
16MW-18	3/19/1999	100.69	00:00	4.80	0.00	95.89	1.50	95.89
16MW-18	5/7/1999	100.69	00:00	7.14	0.00	93.55	-2.34	93.55
16MW-18	6/1/1999	100.69	00:00	7.40	0.00	93.29	-0.26	93.29
16MW-18	6/9/1999	100.69	00:00	7.79	0.00	92.90	-0.39	92.90
16MW-18	6/9/1999	100.69	00:01	7.77	0.00	92.92	0.02	92.92
16MW-18	6/10/1999	100.69	00:00	7.82	0.00	92.87	-0.05	92.87
16MW-18	6/14/1999	100.69	13:25	7.82	0.00	92.87	0.00	92.87
16MW-18	6/22/1999	100.69	09:15	8.12	0.00	92.57	-0.30	92.57
16MW-18	7/29/1999	100.69	00:00	9.10	0.00	91.59	-0.98	91.59
16MW-18	8/3/1999	100.69	00:00	9.25	0.00	91.44	-0.15	91.44
16MW-18	9/3/1999	100.69	00:00	6.50	0.00	94.19	2.75	94.19
16MW-18	9/15/1999	100.69	14:00	8.99	0.00	91.70	-2.49	91.70
16MW-18	10/26/1999	100.69	00:00	7.15	0.01	93.54	1.84	93.55

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-18	11/12/1999	100.69	00:00	8.39	0.02	92.30	-1.24	92.32
16MW-18	11/18/1999	100.69	00:00	8.60	0.01	92.09	-0.21	92.10
16MW-18	12/1/1999	100.69	00:00	8.41	0.02	92.28	0.19	92.29
16MW-18	12/31/1999	100.69	00:00	7.50	0.28	93.19	0.91	93.42
16MW-18	1/26/2000	100.69	00:00	8.39	0.02	92.30	-0.89	92.32
16MW-18	2/18/2000	100.69	00:00	6.17	0.03	94.52	2.22	94.55
16MW-18	4/17/2000	100.69	00:00	6.32	0.05	94.37	-0.15	94.41
16MW-18	5/4/2000	100.69	00:00	6.81	0.00	93.88	-0.49	93.88
16MW-18	8/9/2000	100.69	00:00	5.26	0.01	95.43	1.55	95.44
16MW-18	8/24/2000	100.69	14:00	7.31	0.03	93.38	-2.05	93.40
16MW-18	10/26/2000	100.69	00:00	8.35	0.01	92.34	-1.04	92.35
16MW-18	11/28/2000	100.69	00:00	7.05	0.01	93.64	1.30	93.65
16MW-18	1/16/2001	100.69	00:00	7.72	0.01	92.97	-0.67	92.97
16MW-18	2/27/2001	100.69	00:00	6.40	0.00	94.29	1.32	94.29
16MW-18	3/27/2001	100.69	00:00	5.20	0.00	95.49	1.20	95.49
16MW-18	4/19/2001	100.69	00:00	6.40	0.00	94.29	-1.20	94.29
16MW-18	5/11/2001	100.69	00:00	7.06	0.00	93.63	-0.66	93.63
16MW-18	6/6/2001	100.69	00:00	7.68	0.00	93.01	-0.62	93.01
16MW-19	8/20/1997	100.54	08:57	7.70	0.00	92.84	NA	92.84
16MW-19	10/6/1997	100.54	10:45	8.43	0.62	92.11	-0.73	92.64
16MW-19	12/12/1997	100.54	08:30	8.65	1.13	91.90	-0.22	92.85
16MW-19	1/7/1998	100.54	10:37	7.53	0.83	93.02	1.12	93.72
16MW-19	1/15/1998	100.54	07:30	7.21	0.18	93.33	0.31	93.48
16MW-19	2/10/1998	100.54	00:00	5.79	0.10	94.76	1.43	94.84
16MW-19	2/24/1998	100.54	00:00	5.10	0.00	95.44	0.69	95.44
16MW-19	3/3/1998	100.54	00:00	5.31	0.02	95.24	-0.21	95.25
16MW-19	3/12/1998	100.54	00:00	4.81	0.02	95.74	0.50	95.75
16MW-19	3/13/1998	100.54	00:00	5.05	0.00	95.49	-0.25	95.49
16MW-19	3/26/1998	100.54	00:00	6.31	0.03	94.23	-1.26	94.26
16MW-19	4/3/1998	100.54	00:00	5.31	0.00	95.23	1.00	95.23
16MW-19	4/9/1998	100.54	00:00	5.52	0.01	95.02	-0.21	95.03
16MW-19	4/17/1998	100.54	00:00	5.04	0.04	95.50	0.48	95.54
16MW-19	4/24/1998	100.54	00:00	4.92	0.01	95.62	0.12	95.63
16MW-19	5/5/1998	100.54	00:00	4.56	0.06	95.98	0.36	96.04
16MW-19	5/15/1998	100.54	00:00	3.56	0.01	96.98	0.99	96.99
16MW-19	7/30/1998	100.54	00:00	6.79	0.11	93.75	-3.23	93.84
16MW-19	8/7/1998	100.54	00:00	6.97	0.00	93.57	-0.18	93.57
16MW-19	8/13/1998	100.54	00:00	7.21	0.01	93.34	-0.24	93.34

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-19	8/21/1998	100.54	00:00	7.41	0.00	93.13	-0.21	93.13
16MW-19	9/3/1998	100.54	00:00	7.54	0.00	93.00	-0.13	93.00
16MW-19	9/10/1998	100.54	00:00	7.60	0.00	92.94	-0.06	92.94
16MW-19	10/2/1998	100.54	00:00	7.67	0.01	92.87	-0.07	92.88
16MW-19	10/20/1998	100.54	00:00	7.88	0.01	92.66	-0.21	92.67
16MW-19	11/6/1998	100.54	00:00	8.15	0.01	92.39	-0.27	92.40
16MW-19	12/3/1998	100.54	00:00	7.94	0.00	92.60	0.21	92.60
16MW-19	12/23/1998	100.54	00:00	8.05	0.02	92.50	-0.10	92.51
16MW-19	1/26/1999	100.54	00:00	5.69	0.04	94.85	2.36	94.88
16MW-19	3/9/1999	100.54	00:00	6.43	0.03	94.11	-0.74	94.14
16MW-19	3/19/1999	100.54	00:00	6.05	0.05	94.49	0.38	94.53
16MW-19	4/20/1999	100.54	00:00	6.56	0.01	93.98	-0.51	93.99
16MW-19	5/7/1999	100.54	00:00	7.04	0.03	93.51	-0.47	93.53
16MW-19	6/1/1999	100.54	00:00	7.17	0.03	93.37	-0.14	93.39
16MW-19	6/9/1999	100.54	00:00	6.94	0.00	93.60	0.23	93.60
16MW-19	6/9/1999	100.54	00:01	7.62	0.03	92.92	-0.68	92.95
16MW-19	6/10/1999	100.54	00:00	7.68	0.00	92.86	-0.06	92.86
16MW-19	6/14/1999	100.54	13:20	7.68	0.00	92.86	0.00	92.86
16MW-19	6/22/1999	100.54	09:10	7.90	0.03	92.64	-0.22	92.66
16MW-19	7/29/1999	100.54	00:00	9.01	0.05	91.53	-1.11	91.57
16MW-19	8/3/1999	100.54	00:00	9.14	0.06	91.40	-0.13	91.45
16MW-19	8/13/1999	100.54	00:00	9.05	0.00	91.49	0.09	91.49
16MW-19	9/3/1999	100.54	00:00	9.07	0.14	91.47	-0.02	91.59
16MW-19	9/15/1999	100.54	13:55	8.99	0.02	91.55	0.08	91.57
16MW-19	10/26/1999	100.54	00:00	9.35	0.42	91.19	-0.36	91.54
16MW-19	11/2/1999	100.54	00:00	9.99	0.47	90.55	-0.64	90.95
16MW-19	11/12/1999	100.54	00:00	8.45	0.01	92.09	1.54	92.10
16MW-19	11/18/1999	100.54	00:00	8.59	0.00	91.95	-0.14	91.95
16MW-19	12/1/1999	100.54	00:00	8.35	0.01	92.19	0.24	92.20
16MW-19	12/31/1999	100.54	00:00	8.07	0.04	92.47	0.28	92.50
16MW-19	1/26/2000	100.54	00:00	8.36	0.01	92.18	-0.29	92.19
16MW-19	2/18/2000	100.54	00:00	7.51	0.01	93.03	0.85	93.04
16MW-19	4/17/2000	100.54	00:00	7.52	0.00	93.02	-0.01	93.02
16MW-19	5/4/2000	100.54	00:00	7.22	0.06	93.32	0.30	93.37
16MW-19	8/9/2000	100.54	00:00	7.30	0.22	93.24	-0.08	93.42
16MW-19	8/24/2000	100.54	13:55	8.00	0.06	92.54	-0.70	92.59
16MW-19	10/26/2000	100.54	00:00	8.77	0.09	91.77	-0.77	91.84
16MW-19	11/28/2000	100.54	00:00	8.32	0.06	92.22	0.45	92.27
16MW-19	1/16/2001	100.54	00:00	8.60	0.18	91.94	-0.28	92.09

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-19	2/27/2001	100.54	00:00	7.37	0.00	93.17	1.23	93.17
16MW-19	3/27/2001	100.54	00:00	6.20	0.08	94.34	1.17	94.41
16MW-19	4/19/2001	100.54	00:00	6.40	0.11	94.14	-0.20	94.23
16MW-19	5/11/2001	100.54	00:00	7.48	0.12	93.06	-1.08	93.16
16MW-19	6/6/2001	100.54	00:00	7.57	0.10	92.97	-0.09	93.06
16MW-20	8/20/1997	100.82	09:26	8.55	0.45	92.28	NA	92.65
16MW-20	10/6/1997	100.82	10:45	8.84	0.46	91.98	-0.30	92.37
16MW-20	12/12/1997	100.82	08:30	8.71	0.61	92.11	0.13	92.63
16MW-20	1/7/1998	100.82	10:49	8.28	0.70	92.55	0.44	93.14
16MW-20	2/10/1998	100.82	00:00	7.25	0.15	93.57	1.02	93.70
16MW-20	2/24/1998	100.82	00:00	6.56	0.08	94.26	0.69	94.33
16MW-20	3/3/1998	100.82	00:00	6.63	0.07	94.19	-0.07	94.25
16MW-20	3/12/1998	100.82	00:00	6.30	0.02	94.52	0.33	94.54
16MW-20	3/26/1998	100.82	00:00	6.20	0.00	94.62	0.10	94.62
16MW-20	4/3/1998	100.82	00:00	6.48	0.04	94.34	-0.28	94.37
16MW-20	4/9/1998	100.82	00:00	6.61	0.02	94.21	-0.13	94.23
16MW-20	4/24/1998	100.82	00:00	6.48	0.00	94.34	0.13	94.34
16MW-20	5/5/1998	100.82	00:00	6.40	0.01	94.42	0.08	94.43
16MW-20	5/15/1998	100.82	00:00	5.54	0.06	95.29	0.86	95.33
16MW-20	7/30/1998	100.82	00:00	7.88	0.37	92.94	-2.34	93.25
16MW-20	8/7/1998	100.82	00:00	7.97	0.05	92.85	-0.09	92.89
16MW-20	8/13/1998	100.82	00:00	8.13	0.05	92.69	-0.17	92.73
16MW-20	8/21/1998	100.82	00:00	8.25	0.05	92.57	-0.12	92.61
16MW-20	9/3/1998	100.82	00:00	8.47	0.06	92.35	-0.22	92.40
16MW-20	9/10/1998	100.82	00:00	8.48	0.02	92.34	-0.01	92.36
16MW-20	10/2/1998	100.82	00:00	8.57	0.05	92.25	-0.10	92.29
16MW-20	10/20/1998	100.82	00:00	8.66	0.00	92.16	-0.09	92.16
16MW-20	12/3/1998	100.82	00:00	8.85	0.06	91.97	-0.19	92.02
16MW-20	1/26/1999	100.82	00:00	7.62	0.03	93.20	1.23	93.22
16MW-20	3/9/1999	100.82	00:00	7.88	0.03	92.95	-0.26	92.97
16MW-20	3/19/1999	100.82	00:00	7.63	0.01	93.19	0.25	93.20
16MW-20	4/20/1999	100.82	00:00	7.69	0.01	93.14	-0.06	93.14
16MW-20	5/7/1999	100.82	00:00	7.87	0.02	92.96	-0.18	92.97
16MW-20	6/1/1999	100.82	00:00	8.25	0.04	92.57	-0.39	92.60
16MW-20	6/9/1999	100.82	00:01	8.56	0.08	92.26	-0.31	92.33
16MW-20	6/10/1999	100.82	00:00	7.57	0.05	93.25	0.99	93.29
16MW-20	6/22/1999	100.82	09:35	8.59	0.09	92.23	-1.02	92.30
16MW-20	7/29/1999	100.82	00:00	9.40	0.00	91.42	-0.81	91.42

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-20	8/3/1999	100.82	00:00	10.25	0.19	90.57	-0.85	90.73
16MW-20	9/3/1999	100.82	00:00	9.45	0.02	91.37	0.80	91.38
16MW-20	9/15/1999	100.82	14:30	9.72	0.07	91.10	-0.27	91.16
16MW-20	11/2/1999	100.82	00:00	10.08	0.32	90.74	-0.36	91.01
16MW-20	11/18/1999	100.82	00:00	9.40	0.00	91.42	0.68	91.42
16MW-20	12/1/1999	100.82	00:00	9.31	0.08	91.51	0.09	91.58
16MW-20	12/31/1999	100.82	00:00	8.84	0.03	91.98	0.47	92.01
16MW-20	1/26/2000	100.82	00:00	9.28	0.09	91.54	-0.44	91.62
16MW-20	2/18/2000	100.82	00:00	8.82	0.06	92.00	0.46	92.05
16MW-20	8/9/2000	100.82	00:00	8.32	0.02	92.50	0.50	92.52
16MW-20	8/24/2000	100.82	14:15	7.70	0.00	93.12	0.62	93.12
16MW-20	10/26/2000	100.82	00:00	9.21	0.04	91.61	-1.51	91.64
16MW-20	1/16/2001	100.82	00:00	9.15	0.16	91.67	0.06	91.81
16MW-20	2/27/2001	100.82	00:00	8.40	0.10	92.42	0.75	92.50
16MW-20	3/27/2001	100.82	00:00	7.80	0.13	93.02	0.60	93.13
16MW-20	4/19/2001	100.82	00:00	7.77	0.17	93.05	0.03	93.20
16MW-20	5/11/2001	100.82	00:00	8.88	0.34	91.94	-1.11	92.23
16MW-20	6/6/2001	100.82	00:00	9.85	0.52	90.97	-0.97	91.41
16MW-21	8/20/1997	99.78	00:00	7.56	0.00	92.22	NA	92.22
16MW-21	8/20/1997	99.78	09:35	7.56	0.00	92.22	0.00	92.22
16MW-21	10/6/1997	99.78	10:45	7.80	0.00	91.98	-0.24	91.98
16MW-21	12/12/1997	99.78	08:30	7.70	0.00	92.08	0.10	92.08
16MW-21	1/7/1998	99.78	10:58	7.12	0.00	92.66	0.58	92.66
16MW-21	2/10/1998	99.78	00:00	6.00	0.00	93.78	1.12	93.78
16MW-21	2/24/1998	99.78	00:00	5.67	0.00	94.11	0.33	94.11
16MW-21	3/3/1998	99.78	00:00	5.40	0.00	94.38	0.27	94.38
16MW-21	3/12/1998	99.78	00:00	5.03	0.00	94.75	0.37	94.75
16MW-21	3/13/1998	99.78	00:00	5.17	0.00	94.61	-0.14	94.61
16MW-21	4/3/1998	99.78	00:00	5.25	0.00	94.53	-0.08	94.53
16MW-21	4/9/1998	99.78	00:00	5.55	0.00	94.23	-0.30	94.23
16MW-21	4/17/1998	99.78	00:00	6.45	0.01	93.33	-0.90	93.34
16MW-21	4/24/1998	99.78	00:00	5.93	0.00	93.85	0.52	93.85
16MW-21	5/5/1998	99.78	00:00	4.83	0.00	94.95	1.10	94.95
16MW-21	5/15/1998	99.78	00:00	4.10	0.00	95.68	0.73	95.68
16MW-21	7/30/1998	99.78	00:00	6.95	0.00	92.83	-2.85	92.83
16MW-21	8/7/1998	99.78	00:00	7.21	0.00	92.57	-0.26	92.57
16MW-21	8/13/1998	99.78	00:00	7.41	0.00	92.37	-0.20	92.37
16MW-21	8/21/1998	99.78	00:00	7.51	0.00	92.27	-0.10	92.27

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-21	9/3/1998	99.78	00:00	7.57	0.00	92.21	-0.06	92.21
16MW-21	9/10/1998	99.78	00:00	7.70	0.00	92.08	-0.13	92.08
16MW-21	10/2/1998	99.78	00:00	7.77	0.00	92.01	-0.07	92.01
16MW-21	10/20/1998	99.78	00:00	7.86	0.00	91.92	-0.09	91.92
16MW-21	12/3/1998	99.78	00:00	8.00	0.00	91.78	-0.14	91.78
16MW-21	1/26/1999	99.78	00:00	5.05	0.00	94.73	2.95	94.73
16MW-21	3/9/1999	99.78	00:00	6.57	0.00	93.21	-1.52	93.21
16MW-21	3/19/1999	99.78	00:00	5.56	0.00	94.22	1.01	94.22
16MW-21	4/20/1999	99.78	00:00	6.40	0.00	93.38	-0.84	93.38
16MW-21	6/1/1999	99.78	00:00	7.45	0.00	92.33	-1.05	92.33
16MW-21	6/9/1999	99.78	00:01	7.15	0.00	92.63	0.30	92.63
16MW-21	6/22/1999	99.78	09:40	7.00	0.00	92.78	0.15	92.78
16MW-21	7/29/1999	99.78	00:00	8.75	0.00	91.03	-1.75	91.03
16MW-21	8/3/1999	99.78	00:00	8.89	0.00	90.89	-0.14	90.89
16MW-21	9/15/1999	99.78	14:35	8.70	0.00	91.08	0.19	91.08
16MW-21	11/12/1999	99.78	00:00	9.17	0.03	90.61	-0.47	90.64
16MW-21	11/18/1999	99.78	00:00	8.33	0.00	91.45	0.84	91.45
16MW-21	2/18/2000	99.78	00:00	7.51	0.00	92.27	0.82	92.27
16MW-21	4/17/2000	99.78	00:00	7.35	0.00	92.43	0.16	92.43
16MW-21	5/4/2000	99.78	00:00	7.20	0.00	92.58	0.15	92.58
16MW-21	8/9/2000	99.78	00:00	6.20	0.00	93.58	1.00	93.58
16MW-21	8/24/2000	99.78	14:20	7.88	0.00	91.90	-1.68	91.90
16MW-21	10/26/2000	99.78	00:00	8.30	0.00	91.48	-0.42	91.48
16MW-21	1/16/2001	99.78	00:00	7.80	0.00	91.98	0.50	91.98
16MW-21	2/27/2001	99.78	00:00	7.27	0.00	92.51	0.53	92.51
16MW-21	3/27/2001	99.78	00:00	5.65	0.00	94.13	1.62	94.13
16MW-21	4/19/2001	99.78	00:00	5.70	0.00	94.08	-0.05	94.08
16MW-21	5/11/2001	99.78	00:00	6.95	0.00	92.83	-1.25	92.83
16MW-21	6/6/2001	99.78	00:00	7.19	0.00	92.59	-0.24	92.59
16MW-22	12/12/1997	102.22	00:00	7.70	0.00	94.52	NA	94.52
16MW-22	1/7/1998	102.22	00:00	5.34	0.00	96.88	2.36	96.88
16MW-22	2/10/1998	102.22	00:00	2.98	0.00	99.24	2.36	99.24
16MW-22	2/24/1998	102.22	00:00	1.60	0.00	100.62	1.38	100.62
16MW-22	3/3/1998	102.22	00:00	2.87	0.00	99.35	-1.27	99.35
16MW-22	3/26/1998	102.22	00:00	1.85	0.00	100.37	1.02	100.37
16MW-22	4/3/1998	102.22	00:00	2.05	0.00	100.17	-0.20	100.17
16MW-22	4/17/1998	102.22	00:00	2.10	0.00	100.12	-0.05	100.12
16MW-22	4/24/1998	102.22	00:00	1.52	0.00	100.70	0.58	100.70

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-22	5/5/1998	102.22	00:00	0.00	0.00	102.22	1.52	102.22
16MW-22	5/15/1998	102.22	00:00	2.86	0.00	99.36	-2.86	99.36
16MW-22	7/30/1998	102.22	00:00	6.03	0.00	96.19	-3.17	96.19
16MW-22	8/13/1998	102.22	00:00	6.10	0.00	96.12	-0.07	96.12
16MW-22	10/2/1998	102.22	00:00	7.78	0.00	94.44	-1.68	94.44
16MW-22	11/6/1998	102.22	00:00	8.79	0.00	93.43	-1.01	93.43
16MW-22	1/26/1999	102.22	00:00	1.81	0.00	100.41	6.98	100.41
16MW-22	3/9/1999	102.22	00:00	3.45	0.00	98.77	-1.64	98.77
16MW-22	3/19/1999	102.22	00:00	8.38	0.00	93.84	-4.93	93.84
16MW-22	4/20/1999	102.22	00:00	4.15	0.00	98.07	4.23	98.07
16MW-22	5/7/1999	102.22	00:00	7.05	0.00	95.17	-2.90	95.17
16MW-22	6/1/1999	102.22	00:00	5.81	0.00	96.41	1.24	96.41
16MW-22	6/9/1999	102.22	00:01	6.11	0.00	96.11	-0.30	96.11
16MW-22	6/14/1999	102.22	13:45	7.57	0.05	94.65	-1.46	94.69
16MW-22	6/22/1999	102.22	10:15	7.11	0.00	95.11	0.46	95.11
16MW-22	4/17/2000	102.22	00:00	9.21	1.06	93.01	-2.10	93.91
16MW-22	5/4/2000	102.22	00:00	8.86	0.00	93.36	0.35	93.36
16MW-23	12/12/1997	102.58	08:30	9.19	0.00	93.39	NA	93.39
16MW-23	1/7/1998	102.58	09:35	8.67	0.00	93.91	0.52	93.91
16MW-23	1/7/1998	102.58	09:49	8.67	0.00	93.91	0.00	93.91
16MW-23	2/10/1998	102.58	00:00	2.98	0.00	99.60	5.69	99.60
16MW-23	2/24/1998	102.58	00:00	7.20	0.00	95.38	-4.22	95.38
16MW-23	3/3/1998	102.58	00:00	7.10	0.00	95.48	0.10	95.48
16MW-23	3/26/1998	102.58	00:00	6.60	0.00	95.98	0.50	95.98
16MW-23	4/3/1998	102.58	00:00	6.90	0.00	95.68	-0.30	95.68
16MW-23	4/17/1998	102.58	00:00	6.95	0.00	95.63	-0.05	95.63
16MW-23	4/24/1998	102.58	00:00	6.84	0.00	95.74	0.11	95.74
16MW-23	5/5/1998	102.58	00:00	0.00	0.00	102.58	6.84	102.58
16MW-23	5/15/1998	102.58	00:00	5.89	0.00	96.69	-5.89	96.69
16MW-23	7/30/1998	102.58	00:00	8.03	0.00	94.55	-2.14	94.55
16MW-23	8/13/1998	102.58	00:00	8.46	0.00	94.12	-0.43	94.12
16MW-23	10/2/1998	102.58	00:00	9.03	0.00	93.55	-0.57	93.55
16MW-23	1/26/1999	102.58	00:00	8.21	0.00	94.37	0.82	94.37
16MW-23	3/9/1999	102.58	00:00	8.53	0.00	94.05	-0.32	94.05
16MW-23	3/19/1999	102.58	00:00	8.31	0.00	94.27	0.22	94.27
16MW-23	4/20/1999	102.58	00:00	8.32	0.00	94.26	-0.01	94.26
16MW-23	6/1/1999	102.58	00:00	8.80	0.00	93.78	-0.48	93.78
16MW-23	6/9/1999	102.58	00:01	9.01	0.00	93.57	-0.21	93.57

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
16MW-23	6/22/1999	102.58	10:00	9.75	0.00	92.83	-0.74	92.83
16MW-23	8/3/1999	102.58	00:00	10.00	0.00	92.58	-0.25	92.58
16MW-23	9/15/1999	102.58	15:00	10.11	0.00	92.47	-0.11	92.47
16MW-23	5/4/2000	102.58	00:00	D	NA	NA	NA	NA
C17MW-07	10/6/1979	100.16	00:00	8.19	1.28	91.97	NA	93.06
C17MW-07	12/12/1997	100.16	00:00	7.91	1.26	92.25	0.28	93.32
C17MW-07	1/7/1998	100.16	00:00	7.52	1.42	92.64	0.39	93.85
C17MW-07	1/15/1998	100.16	00:00	7.37	0.20	92.80	0.16	92.96
C17MW-07	2/10/1998	100.16	00:00	6.55	0.84	93.62	0.82	94.33
C17MW-07	2/24/1998	100.16	00:00	1.95	1.35	98.21	4.60	99.36
C17MW-07	3/3/1998	100.16	00:00	5.89	0.49	94.27	-3.94	94.69
C17MW-07	3/12/1998	100.16	00:00	5.45	0.18	94.71	0.44	94.86
C17MW-07	3/13/1998	100.16	00:00	5.56	0.14	94.61	-0.11	94.72
C17MW-07	3/26/1998	100.16	00:00	5.31	0.01	94.85	0.24	94.86
C17MW-07	4/3/1998	100.16	00:00	5.62	0.09	94.54	-0.31	94.61
C17MW-07	4/9/1998	100.16	00:00	5.77	0.08	94.39	-0.15	94.46
C17MW-07	4/17/1998	100.16	00:00	5.62	0.12	94.54	0.15	94.64
C17MW-07	4/24/1998	100.16	00:00	5.50	0.13	94.66	0.12	94.77
C17MW-07	5/5/1998	100.16	00:00	5.67	0.28	94.49	-0.17	94.77
C17MW-07	5/15/1998	100.16	00:00	4.83	0.22	95.33	0.83	95.52
C17MW-07	7/30/1998	100.16	00:00	7.25	1.12	92.91	-2.42	93.86
C17MW-07	8/7/1998	100.16	00:00	7.07	0.25	93.10	0.19	93.30
C17MW-07	8/13/1998	100.16	00:00	7.23	0.25	92.93	-0.17	93.14
C17MW-07	8/21/1998	100.16	00:00	7.27	0.11	92.89	-0.04	92.98
C17MW-07	9/3/1998	100.16	00:00	7.31	0.15	92.85	-0.04	92.98
C17MW-07	9/10/1998	100.16	00:00	7.42	0.09	92.75	-0.11	92.82
C17MW-07	10/2/1998	100.16	00:00	7.55	0.21	92.62	-0.13	92.79
C17MW-07	10/20/1998	100.16	00:00	7.58	0.10	92.58	-0.04	92.67
C17MW-07	12/3/1998	100.16	00:00	7.72	0.08	92.44	-0.14	92.51
C17MW-07	12/23/1998	100.16	00:00	7.67	0.12	92.49	0.05	92.59
C17MW-07	1/26/1999	100.16	00:00	6.35	0.10	93.81	1.32	93.90
C17MW-07	3/9/1999	100.16	00:00	6.61	0.11	93.55	-0.26	93.64
C17MW-07	3/19/1999	100.16	00:00	6.23	0.08	93.93	0.39	94.00
C17MW-07	4/20/1999	100.16	00:00	6.61	0.11	93.56	-0.38	93.64
C17MW-07	5/7/1999	100.16	00:00	6.78	0.08	93.39	-0.17	93.45
C17MW-07	6/1/1999	100.16	00:00	7.19	0.14	92.97	-0.42	93.09
C17MW-07	6/9/1999	100.16	00:00	7.20	0.00	92.96	-0.01	92.96
C17MW-07	6/9/1999	100.16	00:01	7.57	0.28	92.60	-0.37	92.83

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

Water Level & Product Thickness Data

PERIOD: From 10/06/1979 thru 06/06/2001 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	FLOATING PRODUCT THICKNESS (feet)	WATER ELEV. (feet)	DELTA WATER ELEV (feet)	EQUIV. FRESH WATER HEAD (feet)
C17MW-07	6/10/1999	100.16	00:00	7.54	0.13	92.62	0.03	92.73
C17MW-07	6/14/1999	100.16	13:35	7.54	0.13	92.62	0.00	92.73
C17MW-07	6/22/1999	100.16	09:25	7.60	0.32	92.56	-0.06	92.83
C17MW-07	7/29/1999	100.16	00:00	10.40	0.60	89.76	-2.80	90.27
C17MW-07	8/3/1999	100.16	00:00	10.62	0.63	89.54	-0.22	90.08
C17MW-07	8/13/1999	100.16	00:00	10.96	0.70	89.20	-0.34	89.20
C17MW-07	9/3/1999	100.16	00:00	8.37	0.04	91.79	2.59	91.83
C17MW-07	9/15/1999	100.16	14:15	9.37	0.29	90.79	-1.00	90.82
C17MW-07	10/26/1999	100.16	00:00	11.04	1.02	89.12	-1.67	89.99
C17MW-07	11/2/1999	100.16	00:00	10.99	0.93	89.17	0.05	89.17
C17MW-07	11/18/1999	100.16	00:00	8.56	0.17	91.60	2.43	91.74
C17MW-07	12/1/1999	100.16	00:00	8.45	0.19	91.71	0.11	91.87
C17MW-07	12/31/1999	100.16	00:00	8.30	0.22	91.86	0.15	92.05
C17MW-07	1/26/2000	100.16	00:00	8.20	0.12	91.96	0.10	92.06
C17MW-07	2/18/2000	100.16	00:00	7.47	0.03	92.69	0.73	92.72
C17MW-07	4/17/2000	100.16	00:00	7.38	0.08	92.78	0.09	92.85
C17MW-07	5/4/2000	100.16	00:00	7.92	0.06	92.24	-0.54	92.29
C17MW-07	8/9/2000	100.16	00:00	7.07	0.06	93.09	0.85	93.14
C17MW-07	8/24/2000	100.16	00:00	7.50	0.02	92.66	-0.43	92.68
C17MW-07	10/26/2000	100.16	00:00	8.08	0.06	92.08	-0.58	92.13
C17MW-07	11/28/2000	100.16	00:00	8.00	0.16	92.16	0.08	92.30
C17MW-07	1/16/2001	100.16	00:00	8.10	0.20	92.06	-0.10	92.23
C17MW-07	2/27/2001	100.16	00:00	6.42	0.00	93.74	1.68	93.74
C17MW-07	3/27/2001	100.16	00:00	6.25	0.04	93.91	0.17	93.95
C17MW-07	4/19/2001	100.16	00:00	6.44	0.14	93.72	-0.19	93.84
C17MW-07	5/11/2001	100.16	00:00	7.19	0.15	92.97	-0.75	93.10
C17MW-07	6/6/2001	100.16	00:00	7.57	0.19	92.59	-0.38	92.75

1- Change in Water Elevation since last reported measurement
2- Measurements based on mean sea level.

U.S. Navy RAC Contract No. 62472-94-D-0398
Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD004 **Sample Date:** 3/31/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	68.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	68.0	0.00	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
m,p-Xylenes	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
o-Xylene	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
				Total Emissions:	**0.00**	**25**	**0.00E+00**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

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Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD05 Sampl Date: 4/28/2000 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	68.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	68.0	2.8	7.0	2.32E-03	8.00E-03
Toluene	92.0	384.6	60.0	68.0	0.53	N/A	5.17E-04	
Ethylbenzene	106.0	384.6	60.0	68.0	1.6	N/A	1.80E-03	
m,p-Xylenes	106.0	384.6	60.0	68.0	1.9	N/A	2.14E-03	
o-Xylene	106.0	384.6	60.0	68.0	1.1	N/A	1.24E-03	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	68.0	1.5	N/A	1.91E-03	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	68.0	2.1	N/A	2.67E-03	
				Total Emissions:	11.53	25	1.26E-02	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^6}$

Note: Sample collected prior to carbon treatment.

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Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD06 **Sample Date:** 4/28/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	68.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	68.0	0.00	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
m,p-Xylenes	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
o-Xylene	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
				Total Emissions:	**0.00**	**25**	**0.00E+00**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\text{x}(\text{Time Conv.})\text{x}(\text{Concentration})\text{x}(\text{Flow Rate})}{(\text{Conv. Constant})\text{x}10^6}$

Note: Sample collected after carbon treatment.

U.S. Navy RAC Contract No. 62472-94-D-0398
Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD002 **Sample Date:** 6/19/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	86.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	86.0	0.0	7.0	**0.00E+00**	**8.00E-03**
Toluene	92.0	384.6	60.0	86.0	0.0	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	86.0	0.22	N/A	3.13E-04	
m,p-Xylenes	106.0	384.6	60.0	86.0	0.30	N/A	4.27E-04	
o-Xylene	106.0	384.6	60.0	86.0	0.20	N/A	2.84E-04	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	86.0	0.16	N/A	2.58E-04	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	86.0	0.39	N/A	6.28E-04	
			Total Emissions:		**1.27**	**25**	**1.91E-03**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{\text{(Mol. Wt.)x(Time Conv.)x(Concentration)x(Flow Rate)}}{\text{(Conv. Constant)x}10^6}$

Note: Sample collected prior to carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD07 **Sample Date:** 6/19/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	86.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	86.0	0.00	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	86.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	86.0	0.00	N/A	0.00E+00	
m,p-Xylenes	106.0	384.6	60.0	86.0	0.00	N/A	0.00E+00	
o-Xylene	106.0	384.6	60.0	86.0	0.00	N/A	0.00E+00	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	86.0	0.00	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	86.0	0.00	N/A	0.00E+00	
				Total Emissions:	**0.00**	**25**	**0.00E+00**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD008 **Sample Date:** 7/21/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	74.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	74.0	**11.0**	**7.0**	**9.91E-03**	**8.00E-03**
Toluene	92.0	384.6	60.0	74.0	2.5	N/A	2.66E-03	
Ethylbenzene	106.0	384.6	60.0	74.0	2.9	N/A	3.55E-03	
m,p-Xylenes	106.0	384.6	60.0	74.0	4.1	N/A	5.02E-03	
o-Xylene	106.0	384.6	60.0	74.0	2.2	N/A	2.69E-03	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	74.0	1.2	N/A	1.66E-03	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	74.0	2.5	N/A	3.46E-03	
			Total Emissions:		**26.40**	**25**	**2.89E-02**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^6}$

Note: Sample collected prior to carbon treatment. The following compounds were also detected:
1,2-dichlorobenzene (0.40 ppm(v)); 1,3-dichlorobenzene (0.35 ppm(v)); 1,4-dichlorobenzene (0.40ppm(v)).

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD009 **Sample Date:** 7/21/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	74.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	74.0	0.00	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	74.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	74.0	0.00	N/A	0.00E+00	
m,p-Xylenes	106.0	384.6	60.0	74.0	0.00	N/A	0.00E+00	
o-Xylene	106.0	384.6	60.0	74.0	0.00	N/A	0.00E+00	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	74.0	0.00	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	74.0	0.00	N/A	0.00E+00	
				Total Emissions:	**0.00**	**25**	**0.00E+00**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD??? Sample Date: 8/?/2000 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	68.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	68.0	0.00	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
m,p-Xylenes	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
o-Xylene	106.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	68.0	0.00	N/A	0.00E+00	
				Total Emissions:	0.00	25	0.00E+00	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD009 **Sample Date:** 9/7/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emissi n Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	57.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	57.0	16.0	7.0	1.11E-02	8.00E-03
Toluene	92.0	384.6	60.0	57.0	3.0	N/A	2.45E-03	
Ethylbenzene	106.0	384.6	60.0	57.0	4.5	N/A	4.24E-03	
m,p-Xylenes	106.0	384.6	60.0	57.0	13.0	N/A	1.23E-02	
o-Xylene	106.0	384.6	60.0	57.0	2.9	N/A	2.73E-03	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	57.0	1.5	N/A	1.60E-03	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	57.0	3.9	N/A	4.16E-03	
			Total Emissions:		44.80	25	3.85E-02	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^6}$

Note: Sample collected prior to carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD010 **Sample Date:** 9/7/2000 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	57.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	57.0	0.030	7.0	2.08E-05	8.00E-03
Toluene	92.0	384.6	60.0	57.0	0.0	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	57.0	0.029	N/A	2.73E-05	
m,p-Xylenes	106.0	384.6	60.0	57.0	0.086	N/A	8.11E-05	
o-Xylene	106.0	384.6	60.0	57.0	0.022	N/A	2.07E-05	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	57.0	0.019	N/A	2.03E-05	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	57.0	0.059	N/A	6.30E-05	
				Total Emissions:	**0.25**	**25**	**2.33E-04**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{\text{(Mol. Wt.)x(Time Conv.)x(Concentration)x(Flow Rate)}}{\text{(Conv. Constant)x}10^6}$

Note: Sample collected after carbon treatment.

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Analytical Results of Air Samples

Bi slurper Unit #1

SAMPLE NO. 16(A)VD011 Sample Date: 10/30/2000 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	52.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	52.0	14.0	7.0	8.86E-03	8.00E-03
Toluene	92.0	384.6	60.0	52.0	1.8	N/A	1.34E-03	
Ethylbenzene	106.0	384.6	60.0	52.0	4.50	N/A	3.87E-03	
m,p-Xylenes	106.0	384.6	60.0	52.0	13.0	N/A	1.12E-02	
o-Xylene	106.0	384.6	60.0	52.0	3.1	N/A	2.67E-03	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	52.0	1.9	N/A	1.85E-03	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	52.0	4.8	N/A	4.67E-03	
				Total Emissions:	43.10	25	3.44E-02	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected prior to carbon treatment.

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Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD012 Sample Date: 10/30/2000 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	52.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	52.0	0.00	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	52.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	52.0	0.03	N/A	2.84E-05	
m,p-Xylenes	106.0	384.6	60.0	52.0	0.11	N/A	9.46E-05	
o-Xylene	106.0	384.6	60.0	52.0	0.03	N/A	2.84E-05	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	52.0	0.00	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	52.0	0.08	N/A	7.59E-05	
				Total Emissions:	**0.25**	**25**	**2.27E-04**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD013 Sample Date: 11/30/2000 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	58.0	0.000	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	58.0	0.000	7.0	0.00E+00	8.00E-03
Toluene	92.0	384.6	60.0	58.0	0.000	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	58.0	0.000	N/A	0.00E+00	
m,p-Xylenes	106.0	384.6	60.0	58.0	0.027	N/A	2.59E-05	
o-Xylene	106.0	384.6	60.0	58.0	0.000	N/A	0.00E+00	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	58.0	0.000	N/A	0.00E+00	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	58.0	0.043	N/A	4.67E-05	
				Total Emissions:	0.070	25	7.26E-05	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

U.S. Navy RAC Contract No. 62472-94-D-0398

Naval Weapons Station-Earle: Bioslurper No. 1

Analytical Results of Air Samples

Bi slurper Unit #1

SAMPLE NO.

16(A)VD011

Sample Date: 12/31/2000

mpoun	Molecular Weight bs/lbs-mo	Conversio Constant u. ft/lbs-m	Time onversio (min/hr)	Weekly Flow Rate cu. ft/min	ompoun Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	53.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	53.0	14.0	7.0	9.03E-03	8.00E-03
Toluene	92.0	384.6	60.0	53.0	1.8	N/A	1.37E-03	
thylbenze	106.0	384.6	60.0	53.0	4.50	N/A	3.94E-03	
,p-Xylene	106.0	384.6	60.0	53.0	13.0	N/A	1.14E-02	
o-Xylene	106.0	384.6	60.0	53.0	3.1	N/A	2.72E-03	
rimethylb	120.0	384.6	60.0	53.0	1.9	N/A	1.89E-03	
rimethylb	120.0	384.6	60.0	53.0	4.8	N/A	4.76E-03	
			Total Emissions:		43.10	25	3.51E-02	3.50E-02

F rmula: t Rate per Compound = (Mol. Wt.)x(Time Conv.)x(Concentration)x(Flow Rate)

(Conv. Constant)x10^6

Note: Sample collected prior to carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bi slurper Unit #1

SAMPLE NO. 16(A)VD0018 **Sample Date:** 1/29/2001 **Compound**	**Molecular Weight (lbs/lbs-mol)**	**Conversion Constant (cu. ft/lbs-mol**	**Time Conversion (min/hr)**	**Weekly Flow Rate (cu. ft/min)**	**Compound Conc. (ppm(v))**	**Compound Emission Limit ppm(v)**	**Output Rate (lbs/hr)**	**Emission Limits (lbs/hr)**
Acetone	58.1	384.6	60.0	67.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	67.0	0.03	7.0	2.28E-05	8.00E-03
Toluene	92.0	384.6	60.0	67.0	0.00	N/A	0.00E+00	
Ethylbenzene	106.0	384.6	60.0	67.0	0.04	N/A	3.88E-05	
m,p-Xylenes	106.0	384.6	60.0	67.0	0.12	N/A	1.33E-04	
o-Xylene	106.0	384.6	60.0	67.0	0.04	N/A	3.88E-05	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	67.0	0.03	N/A	3.89E-05	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	67.0	0.10	N/A	1.25E-04	
				Total Emissions:	**0.35**	**25**	**3.98E-04**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected after carbon treatment.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #2

SAMPLE NO. 16(B)VD007 Sample Date: 1/29/2001 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	47.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	47.0	0.28	7.0	1.60E-04	8.00E-03
Toluene	92.0	384.6	60.0	47.0	0.05	N/A	3.31E-05	
Ethylbenzene	106.0	384.6	60.0	47.0	1.00	N/A	7.77E-04	
m,p-Xylenes	106.0	384.6	60.0	47.0	3.40	N/A	2.64E-03	
o-Xylene	106.0	384.6	60.0	47.0	0.69	N/A	5.36E-04	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	47.0	0.70	N/A	6.16E-04	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	47.0	2.30	N/A	2.02E-03	
				Total Emissions:	**8.42**	**25**	**6.79E-03**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected at discharge stack.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(B)VD008 Sample Date: 2/28/2001 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	51.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	51.0	0.4	7.0	2.23E-04	8.00E-03
Toluene	92.0	384.6	60.0	51.0	0.04	N/A	2.93E-05	
Ethylbenzene	106.0	384.6	60.0	51.0	1.2	N/A	1.01E-03	
m,p-Xylenes	106.0	384.6	60.0	51.0	0.3	N/A	2.19E-04	
o-Xylene	106.0	384.6	60.0	51.0	0.3	N/A	2.19E-04	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	51.0	0.4	N/A	4.01E-04	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	51.0	1.3	N/A	1.24E-03	
				Total Emissions:	3.84	25	3.35E-03	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^{6}}$

Note: Sample collected at discharge stack.

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Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #1

SAMPLE NO. 16(A)VD0022 Sample Date: 3/30/2001 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	51.0	0.00	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	51.0	0.06	7.0	3.72E-05	8.00E-03
Toluene	92.0	384.6	60.0	51.0	0.02	N/A	1.39E-05	
Ethylbenzene	106.0	384.6	60.0	51.0	0.41	N/A	3.46E-04	
m,p-Xylenes	106.0	384.6	60.0	51.0	0.14	N/A	1.18E-04	
o-Xylene	106.0	384.6	60.0	51.0	0.04	N/A	3.04E-05	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	51.0	0.04	N/A	3.44E-05	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	51.0	0.10	N/A	9.55E-05	
				Total Emissions:	**0.80**	**25**	**6.75E-04**	**3.50E-02**

Formula: Output Rate per Compound = $\frac{\text{(Mol. Wt.)x(Time Conv.)x(Concentration)x(Flow Rate)}}{\text{(Conv. Constant)x}10^6}$

Note: Sample collected after carbon treatment.

U.S. Navy RAC Contract No. 62472-94-D-0398
Naval Weapons Station-Earle: Bioslurper No. 1
Analytical Results of Air Samples

Bioslurper Unit #2

SAMPLE NO. 16(B)VD008 Sample Date: 3/30/2001 Compound	Molecular Weight (lbs/lbs-mol)	Conversion Constant (cu. ft/lbs-mol	Time Conversion (min/hr)	Weekly Flow Rate (cu. ft/min)	Compound Conc. (ppm(v))	Compound Emission Limit ppm(v)	Output Rate (lbs/hr)	Emission Limits (lbs/hr)
Acetone	58.1	384.6	60.0	51.0	0.0	N/A	0.00E+00	
Benzene	78.0	384.6	60.0	51.0	0.7	7.0	4.22E-04	8.00E-03
Toluene	92.0	384.6	60.0	51.0	0.07	N/A	5.12E-05	
Ethylbenzene	106.0	384.6	60.0	51.0	0.9	N/A	7.76E-04	
m,p-Xylenes	106.0	384.6	60.0	51.0	2.3	N/A	1.94E-03	
o-Xylene	106.0	384.6	5.0	51.0	0.5	N/A	3.72E-05	
1,3,5-Trimethylbenzene	120.0	384.6	60.0	51.0	0.7	N/A	6.78E-04	
1,2,4-Trimethylbenzene	120.0	384.6	60.0	51.0	2.1	N/A	2.00E-03	
				Total Emissions:	7.31	25	5.91E-03	3.50E-02

Formula: Output Rate per Compound = $\frac{(\text{Mol. Wt.})\times(\text{Time Conv.})\times(\text{Concentration})\times(\text{Flow Rate})}{(\text{Conv. Constant})\times 10^6}$

Note: Sample collected at discharge stack.

PHONE (714) 751-3210 FAX (714) 751-6414

3190-A AIRPORT LOOP DRIVE COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0009602

April 20, 2000

Foster Wheeler Environmental
One Oxford Valley, Suite 200
Langhorne, PA 19047

Project Name: NWS-Earle
Project Number: ---

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
April 5, 2000	2	Air/Canister

The sample(s) received were analyzed for total petroleum hydrocarbons as gasoline using an HP gas chromatograph equipped with a flame ionization detector (GC/FID) and volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Environmental
PROJECT #: ---
PROJECT NAME: NWS-Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.01 Liter
INITIAL PRESSURE: 1.00 psia
FINAL PRESSURE: 1.00 psia
PRES. DILUTION : 1.00
DILUTION FACTOR: 1

CLIENT SAMPLE ID: Method Blank
AAI RFS# 0009602
AAI ID#: Method Blank

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 4/8/00

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.50	ND<	0.242
74-83-9	Bromomethane	ND<	0.50	ND<	0.129
75-01-04	Vinyl Chloride	ND<	0.50	ND<	0.196
75-00-3	Chloroethane	ND<	0.50	ND<	0.190
75-69-4	Freon 11	ND<	0.50	ND<	0.089
75-35-4	1,1-Dichloroethene	ND<	0.50	ND<	0.126
76-13-1	Freon 113	ND<	0.50	ND<	0.065
75-09-2	Methylene Chloride	ND<	0.50	ND<	0.144
75-35-3	1,1-Dichloroethane	ND<	0.50	ND<	0.124
156-60-5	trans-1,2-Dichloroethene	ND<	0.50	ND<	0.126
156-59-2	cis-1,2-Dichloroethene	ND<	0.50	ND<	0.126
67-66-3	Chloroform	ND<	0.50	ND<	0.102
71-55-6	1,1,1-Trichloroethane	ND<	0.50	ND<	0.092
56-23-5	Carbon Tetrachloride	ND<	0.50	ND<	0.080
71-43-2	Benzene	ND<	0.50	ND<	0.157
107-06-2	1,2-Dichloroethane	ND<	0.50	ND<	0.124
79-01-6	Trichloroethene	ND<	0.50	ND<	0.093
78-87-5	1,2-Dichloropropane	ND<	0.50	ND<	0.108
10061-02-6	trans-1,3-Dichloropropene	ND<	0.50	ND<	0.110
108-88-3	Toluene	ND<	0.50	ND<	0.133
10061-01-5	cis-1,3-Dichloropropene	ND<	0.50	ND<	0.110
79-00-5	1,1-2-Trichloroethane	ND<	0.50	ND<	0.092
127-18-4	Tetrachloroethene	ND<	0.50	ND<	0.074
106-93-4	Ethylene Dibromide	ND<	0.50	ND<	0.065
108-90-7	Chlorobenzene	ND<	0.50	ND<	0.109
100-41-4	Ethylbenzene	ND<	0.50	ND<	0.115
1330-20-7	m,p-Xylene	ND<	0.50	ND<	0.115
95-47-6	o-Xylene	ND<	0.50	ND<	0.115
100-42-5	Styrene	ND<	0.50	ND<	0.117
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.50	ND<	0.073
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.50	ND<	0.102
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.50	ND<	0.102
541-73-1	1,3-Dichlorobenzene	ND<	0.50	ND<	0.083
106-46-7	1,4-Dichlorobenzene	ND<	0.50	ND<	0.083
100-44-7	Chlorotoluene	ND<	0.50	ND<	0.097
95-50-1	1,2-Dichlorobenzene	ND<	0.50	ND<	0.083
67-64-1	Acetone	ND<	0.50	ND<	0.211
78-93-3	2-Butanone	ND<	0.50	ND<	0.170
108-10-1	4-methyl-2-pentanone	ND<	0.50	ND<	0.122
591-78-6	2-Hexanone	ND<	0.50	ND<	0.122

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	81	70-130
Toluene-d8 (SS2)	112	70-130
4- Bromofluorobenzene (SS3)	108	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: L[illegible] Date: 4/20/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD003
PROJECT #:	---	**AAI RFS#**	0009602
PROJECT NAME:	NWS-Earle	**AAI ID#:**	0009602-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	**DATE SAMPLED:**	3/31/00
INITIAL PRESSURE:	14.30 psia	**DATE RECEIVED:**	4/5/00
FINAL PRESSURE:	16.90 psia	**DATE ANALYZED:**	4/8/00
PRES. DILUTION :	1.18		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.59	ND<	0.286
74-83-9	Bromomethane	ND<	0.59	ND<	0.152
75-01-04	Vinyl Chloride	ND<	0.59	ND<	0.231
75-00-3	Chloroethane	ND<	0.59	ND<	0.224
75-69-4	Freon 11	ND<	0.59	ND<	0.105
75-35-4	1,1-Dichloroethene	ND<	0.59	ND<	0.149
76-13-1	Freon 113	ND<	0.59	ND<	0.077
75-09-2	Methylene Chloride	ND<	0.59	ND<	0.170
75-35-3	1,1-Dichloroethane	ND<	0.59	ND<	0.146
156-60-5	trans-1,2-Dichloroethene	ND<	0.59	ND<	0.149
156-59-2	cis-1,2-Dichloroethene	ND<	0.59	ND<	0.149
67-66-3	Chloroform	ND<	0.59	ND<	0.121
71-55-6	1,1,1-Trichloroethane	ND<	0.59	ND<	0.108
56-23-5	Carbon Tetrachloride	ND<	0.59	ND<	0.094
71-43-2	Benzene	7.2	0.59	2.3	0.185
107-06-2	1,2-Dichloroethane	ND<	0.59	ND<	0.146
79-01-6	Trichloroethene	ND<	0.59	ND<	0.110
78-87-5	1,2-Dichloropropane	ND<	0.59	ND<	0.128
10061-02-6	trans-1,3-Dichloropropene	ND<	0.59	ND<	0.130
108-88-3	Toluene	3.5	0.59	0.94	0.157
10061-01-5	cis-1,3-Dichloropropene	ND<	0.59	ND<	0.130
79-00-5	1,1-2-Trichloroethane	ND<	0.59	ND<	0.108
127-18-4	Tetrachloroethene	ND<	0.59	ND<	0.087
106-93-4	Ethylene Dibromide	ND<	0.59	ND<	0.077
108-90-7	Chlorobenzene	ND<	0.59	ND<	0.128
100-41-4	Ethylbenzene	14	0.59	3.2	0.136
1330-20-7	m,p-Xylene	19	0.59	4.4	0.136
95-47-6	o-Xylene	13	0.59	3.0	0.136
100-42-5	Styrene	ND<	0.59	ND<	0.139
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.59	ND<	0.086
108-67-8	1,3,5-Trimethyl Benzene	6.0	0.59	1.2	0.120
95-63-6	1,2,4-Trimethyl Benzene	23	0.59	4.6	0.120
541-73-1	1,3-Dichlorobenzene	ND<	0.59	ND<	0.098
106-46-7	1,4-Dichlorobenzene	ND<	0.59	ND<	0.098
100-44-7	Chlorotoluene	ND<	0.59	ND<	0.114
95-50-1	1,2-Dichlorobenzene	ND<	0.59	ND<	0.098
67-64-1	Acetone	ND<	0.59	ND<	0.249
78-93-3	2-Butanone	ND<	0.59	ND<	0.201
108-10-1	4-methyl-2-pentanone	ND<	0.59	ND<	0.145
591-78-6	2-Hexanone	ND<	0.59	ND<	0.144

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	75	70-130
Toluene-d8 (SS2)	127	70-130
4- Bromofluorobenzene (SS3)	110	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: [signature] Date: 4/20/00

ANALYTICAL RESULTS

AAI RFS #: 0009602

Client Name: Foster Wheeler Environmental
Project Name: NWS-Earle
Project #: --
Matrix: Air/Canister

Date(s) Sampled: 3/31/00
Date(s) Analyzed: 4/7/00
Analytical Method: CARB/EPA
Chemist: AS

	Units	16 (A) VD003 0009602 -001	16 (A) VD004 0009602 -002	Method Blank
EPA 8015mod				
TPH as gasoline	(ppm(v))	280	ND<10	ND<10

	Units	16 (A) VD003 0009602 -001	16 (A) VD004 0009602 -002	Method Blank
EPA 8015mod				
TPH as gasoline	(mg/m3)	1,319	ND<1.0	ND<1.0

Approved by: L3 Date: 4/20/00

QUALITY CONTROL

AAI RFS #: 0009602

Client Name: Foster Wheeler Environmental
Project Name: NWS-Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 3/31/00
Date(s) Analyzed: 4/7/00
Analytical Method: CARB/EPA
Chemist: AS

	Sample Result 0009602-002 (ppm(v))	Duplicate Result 0009602-002 (ppm(v))	RPD (%)	Quality Control Limits (%)
EPA 8015mod				
TPH as gasoline	ND<10	ND<10	---	30

	Sample Result 0009602-002 (mg/m3)	Duplicate Result 0009602-002 (mg/m3)	RPD (%)	Quality Contr l Limits (%)
EPA 8015mod				
TPH as gasoline	ND<1.0	ND<1.0	---	30

Approved by: L? Date: 4/20/00

APOLLO ANALYTICAL

EBASCO SERVICES INCORPORATED
CHAIN OF CUSTODY RECORD

PROJECT: NWIS-Earle Brasburger

SAMPLERS: (Signature) Chris Robb

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	NO. CONTAINERS	TCL VOA	TCL BNA	TCL PEST/PCB	TAL METALS	CYANIDE	VOCs	TPH	REMARKS OR SAMPLE LOCATION	ICED	SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN
~~16(A)EW~~					1					1			RFS# 0009602-		
16(A)VD003	3/3/00	14:00		Y	1					Y	X		-001		
16(A)VD004	3/3/00	14:25		Y	1					X	X		-002		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Shipped via:
(1)	4/4/00	4/5/00	(4)		
Relinquished by: (Signature) (2)	Date / Time	Received by: (Signature)	Received for Laboratory by (Signature)	Date / Time 4/5/00 1100	Shipped Ticket No. 7498138292
Relinquished by: (Signature) (3)	Date / Time	Received by: (Signature)	Remarks: 7 day turn-around		

APR 05 2000 14:06 FR FOSTER WHEELER 215 782 4345 TO 917147516414 P.02/02

** TOTAL PAGE.02 **

APOLLO ANALYTICAL

EBASCO SERVICES INCORPORATED
CHAIN OF CUSTODY RECORD

PROJECT: NWS-Earle Bioslurper

SAMPLERS: (Signature) Chris Fobb

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	NO. CONTAINERS	TCL VOA	TCL BNA	TCL PEST./PCB	TAL METALS	CYANIDE	VOCs	TPH	REMARKS OR SAMPLE LOCATION	PRESERVATION: ICED	PRESERVATION: SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN
~~16(A)EW~~					1					1					
16(A)VD003	3/3/00	14:00		Y	1					X	X				
16(A)VD004	3/3/00	14:05		Y	1					X	X				

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Shipped via:
(1)	4/4/00		(4)		
Relinquished by: (Signature) (2)	Date / Time	Received by: (Signature)	Received for Laboratory by: (Signature)	Date / Time	Shipped Ticket No.
Relinquished by: (Signature) (3)	Date / Time	Received by: (Signature)	Remarks: – 72 hr turn-around		

PHONE (714) 751-3210 FAX (714) 751-6414

3190-A AIRPORT LOOP DRIVE COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0012304

May 23, 2000

Foster Wheeler Environmental
One Oxford Valley, Suite 200
Langhorne, PA 19047

Project Name: Naval Weapons Station Earle
Project Number: ---

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
May 2, 2000	2	Air/Canister

The sample(s) received were analyzed for total petroleum hydrocarbons as gasoline using an HP gas chromatograph equipped with a flame ionization detector (GC/FID) and volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	Method Blank
PROJECT #:	---	**AAI RFS#**	0012304
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	Method Blank
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.02 Liter	**DATE SAMPLED:**	N/A
INITIAL PRESSURE:	1.00 psia	**DATE RECEIVED:**	N/A
FINAL PRESSURE:	1.00 psia	**DATE ANALYZED:**	5/6/00
PRES. DILUTION :	1.00		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.25	ND<	0.121
74-83-9	Bromomethane	ND<	0.25	ND<	0.064
75-01-04	Vinyl Chloride	ND<	0.25	ND<	0.098
75-00-3	Chloroethane	ND<	0.25	ND<	0.095
75-69-4	Freon 11	ND<	0.25	ND<	0.045
75-35-4	1,1-Dichloroethene	ND<	0.25	ND<	0.063
76-13-1	Freon 113	ND<	0.25	ND<	0.033
75-09-2	Methylene Chloride	ND<	0.25	ND<	0.072
75-35-3	1,1-Dichloroethane	ND<	0.25	ND<	0.062
156-60-5	trans-1,2-Dichloroethene	ND<	0.25	ND<	0.063
156-59-2	cis-1,2-Dichloroethene	ND<	0.25	ND<	0.063
67-66-3	Chloroform	ND<	0.25	ND<	0.051
71-55-6	1,1,1-Trichloroethane	ND<	0.25	ND<	0.046
56-23-5	Carbon Tetrachloride	ND<	0.25	ND<	0.040
71-43-2	Benzene	ND<	0.25	ND<	0.078
107-06-2	1,2-Dichloroethane	ND<	0.25	ND<	0.062
79-01-6	Trichloroethene	ND<	0.25	ND<	0.047
78-87-5	1,2-Dichloropropane	ND<	0.25	ND<	0.054
10061-02-6	trans-1,3-Dichloropropene	ND<	0.25	ND<	0.055
108-88-3	Toluene	ND<	0.25	ND<	0.066
10061-01-5	cis-1,3-Dichloropropene	ND<	0.25	ND<	0.055
79-00-5	1,1-2-Trichloroethane	ND<	0.25	ND<	0.046
127-18-4	Tetrachloroethene	ND<	0.25	ND<	0.037
106-93-4	Ethylene Dibromide	ND<	0.25	ND<	0.033
108-90-7	Chlorobenzene	ND<	0.25	ND<	0.054
100-41-4	Ethylbenzene	ND<	0.25	ND<	0.058
1330-20-7	m,p-Xylene	ND<	0.25	ND<	0.058
95-47-6	o-Xylene	ND<	0.25	ND<	0.058
100-42-5	Styrene	ND<	0.25	ND<	0.059
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.25	ND<	0.036
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.25	ND<	0.051
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.25	ND<	0.051
541-73-1	1,3-Dichlorobenzene	ND<	0.25	ND<	0.042
106-46-7	1,4-Dichlorobenzene	ND<	0.25	ND<	0.042
100-44-7	Chlorotoluene	ND<	0.25	ND<	0.048
95-50-1	1,2-Dichlorobenzene	ND<	0.25	ND<	0.042
67-64-1	Acetone	ND<	0.25	ND<	0.105
78-93-3	2-Butanone	ND<	0.25	ND<	0.085
108-10-1	4-methyl-2-pentanone	ND<	0.25	ND<	0.061
591-78-6	2-Hexanone	ND<	0.25	ND<	0.061

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	86	70-130
Toluene-d8 (SS2)	118	70-130
4- Bromofluorobenzene (SS3)	99	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: _____ Date: 5/23/2000

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD05
PROJECT #:	---	**AAI RFS#**	0012304
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	0012304-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.02 Liter	**DATE SAMPLED:**	4/28/00
INITIAL PRESSURE:	14.60 psia	**DATE RECEIVED:**	5/2/00
FINAL PRESSURE:	17.30 psia	**DATE ANALYZED:**	5/6/00
PRES. DILUTION :	1.18		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.30	ND<	0.144
74-83-9	Bromomethane	ND<	0.30	ND<	0.076
75-01-04	Vinyl Chloride	ND<	0.30	ND<	0.116
75-00-3	Chloroethane	ND<	0.30	ND<	0.112
75-69-4	Freon 11	ND<	0.30	ND<	0.053
75-35-4	1,1-Dichloroethene	ND<	0.30	ND<	0.075
76-13-1	Freon 113	ND<	0.30	ND<	0.039
75-09-2	Methylene Chloride	ND<	0.30	ND<	0.085
75-35-3	1,1-Dichloroethane	ND<	0.30	ND<	0.073
156-60-5	trans-1,2-Dichloroethene	ND<	0.30	ND<	0.075
156-59-2	cis-1,2-Dichloroethene	ND<	0.30	ND<	0.075
67-66-3	Chloroform	ND<	0.30	ND<	0.061
71-55-6	1,1,1-Trichloroethane	ND<	0.30	ND<	0.054
56-23-5	Carbon Tetrachloride	ND<	0.30	ND<	0.047
71-43-2	Benzene	8.9	0.30	2.8	0.093
107-06-2	1,2-Dichloroethane	ND<	0.30	ND<	0.073
79-01-6	Trichloroethene	ND<	0.30	ND<	0.055
78-87-5	1,2-Dichloropropane	ND<	0.30	ND<	0.064
10061-02-6	trans-1,3-Dichloropropene	ND<	0.30	ND<	0.065
108-88-3	Toluene	2.0	0.30	0.53	0.079
10061-01-5	cis-1,3-Dichloropropene	ND<	0.30	ND<	0.065
79-00-5	1,1-2-Trichloroethane	ND<	0.30	ND<	0.054
127-18-4	Tetrachloroethene	ND<	0.30	ND<	0.044
106-93-4	Ethylene Dibromide	ND<	0.30	ND<	0.039
108-90-7	Chlorobenzene	ND<	0.30	ND<	0.064
100-41-4	Ethylbenzene	7.1	0.30	1.6	0.068
1330-20-7	m,p-Xylene	8.3	0.30	1.9	0.068
95-47-6	o-Xylene	4.8	0.30	1.1	0.068
100-42-5	Styrene	ND<	0.30	ND<	0.070
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.30	ND<	0.043
108-67-8	1,3,5-Trimethyl Benzene	7.4	0.30	1.5	0.060
95-63-6	1,2,4-Trimethyl Benzene	10	0.30	2.1	0.060
541-73-1	1,3-Dichlorobenzene	ND<	0.30	ND<	0.049
106-46-7	1,4-Dichlorobenzene	ND<	0.30	ND<	0.049
100-44-7	Chlorotoluene	ND<	0.30	ND<	0.057
95-50-1	1,2-Dichlorobenzene	ND<	0.30	ND<	0.049
67-64-1	Acetone	ND<	0.30	ND<	0.125
78-93-3	2-Butanone	ND<	0.30	ND<	0.101
108-10-1	4-methyl-2-pentanone	ND<	0.30	ND<	0.072
591-78-6	2-Hexanone	ND<	0.30	ND<	0.072

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	45*	70-130
Toluene-d8 (SS2)	89	70-130
4- Bromofluorobenzene (SS3)	90	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: L³ Date: 5/23/2000

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD06
PROJECT #:	---	**AAI RFS#**	0012304
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	0012304-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	4/28/00
INITIAL PRESSURE:	14.60 psia	**DATE RECEIVED:**	5/2/00
FINAL PRESSURE:	17.20 psia	**DATE ANALYZED:**	5/6/00
PRES. DILUTION :	1.18		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.12	ND<	0.057
74-83-9	Bromomethane	ND<	0.12	ND<	0.030
75-01-04	Vinyl Chloride	ND<	0.12	ND<	0.046
75-00-3	Chloroethane	ND<	0.12	ND<	0.045
75-69-4	Freon 11	ND<	0.12	ND<	0.021
75-35-4	1,1-Dichloroethene	ND<	0.12	ND<	0.030
76-13-1	Freon 113	ND<	0.12	ND<	0.015
75-09-2	Methylene Chloride	ND<	0.12	ND<	0.034
75-35-3	1,1-Dichloroethane	ND<	0.12	ND<	0.029
156-60-5	trans-1,2-Dichloroethene	ND<	0.12	ND<	0.030
156-59-2	cis-1,2-Dichloroethene	ND<	0.12	ND<	0.030
67-66-3	Chloroform	ND<	0.12	ND<	0.024
71-55-6	1,1,1-Trichloroethane	ND<	0.12	ND<	0.022
56-23-5	Carbon Tetrachloride	ND<	0.12	ND<	0.019
71-43-2	Benzene	ND<	0.12	ND<	0.037
107-06-2	1,2-Dichloroethane	ND<	0.12	ND<	0.029
79-01-6	Trichloroethene	ND<	0.12	ND<	0.022
78-87-5	1,2-Dichloropropane	ND<	0.12	ND<	0.026
10061-02-6	trans-1,3-Dichloropropene	ND<	0.12	ND<	0.026
108-88-3	Toluene	ND<	0.12	ND<	0.031
10061-01-5	cis-1,3-Dichloropropene	ND<	0.12	ND<	0.026
79-00-5	1,1-2-Trichloroethane	ND<	0.12	ND<	0.022
127-18-4	Tetrachloroethene	ND<	0.12	ND<	0.017
106-93-4	Ethylene Dibromide	ND<	0.12	ND<	0.015
108-90-7	Chlorobenzene	ND<	0.12	ND<	0.026
100-41-4	Ethylbenzene	ND<	0.12	ND<	0.027
1330-20-7	m,p-Xylene	ND<	0.12	ND<	0.027
95-47-6	o-Xylene	ND<	0.12	ND<	0.027
100-42-5	Styrene	ND<	0.12	ND<	0.028
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.12	ND<	0.017
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.12	ND<	0.024
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.12	ND<	0.024
541-73-1	1,3-Dichlorobenzene	ND<	0.12	ND<	0.020
106-46-7	1,4-Dichlorobenzene	ND<	0.12	ND<	0.020
100-44-7	Chlorotoluene	ND<	0.12	ND<	0.023
95-50-1	1,2-Dichlorobenzene	ND<	0.12	ND<	0.020
67-64-1	Acetone	ND<	0.12	ND<	0.050
78-93-3	2-Butanone	ND<	0.12	ND<	0.040
108-10-1	4-methyl-2-pentanone	ND<	0.12	ND<	0.029
591-78-6	2-Hexanone	ND<	0.12	ND<	0.029

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	61*	70-130
Toluene-d8 (SS2)	123	70-130
4- Bromofluorobenzene (SS3)	91	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: L Date: 5/23/2000

ANALYTICAL RESULTS

AAI RFS #: 0012304

Client Name: Foster Wheeler Environmental
Project Name: Naval Weapons Station Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 4/28/00
Date(s) Analyzed: 5/5/00
Analytical Method: CARB/EPA
Chemist: AS

	Units	16 (A) VD05 0012304 -001	16 (A) VD06 0012304 -002	Method Blank
EPA 8015mod				
TPH as gasoline	(ppm(v))	220	ND<10	ND<10

	Units	16 (A) VD05 0012304 -001	16 (A) VD06 0012304 -002	Method Blank
EPA 8015mod				
TPH as gasoline	(mg/m3)	765	ND<1.0	ND<1.0

Approved by: [illegible] Date: 5/23/2000

QUALITY CONTROL

AAI RFS #: 0012304

Client Name: Foster Wheeler Environmental
Project Name: Naval Weapons Station Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 4/28/00
Date(s) Analyzed: 5/5/00
Analytical Method: CARB/EPA
Chemist: AS

	Sample Result 0012304-002 (ppm(v))	Duplicate Result 0012304-002 (ppm(v))	RPD (%)	Quality C ntr l Limits (%)
EPA 8015mod				
TPH as gasoline	ND<10	ND<10	---	30

	Sample Result 0012304-002 (mg/m3)	Duplicate Result 0012304-002 (mg/m3)	RPD (%)	Quality C ntrol Limits (%)
EPA 8015mod				
TPH as gasoline	ND<1.0	ND<1.0	---	30

Approved by: [illegible] Date: 5/23/2000

nytest environmental inc.
(516) 625-5500 FAX: (516) 625-1274

APOLLO ANALYTICAL

Chain of Custody Record

Client Name: Foster Wheeler Enviros
Address: One Oxford Valley, Suite 200
Langhorne, PA 19047

Project Manager: Mike Heffner
Phone: (215) 702-4015 FAX (215) 702-4045
Project Name: Naval Weapons Station Earle
Project Number:
P.O. #:
Analytical Protocol: Deliverables:
Sampled By: Mike Heffner

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers	TPH	VOCs
-001	Air	4/28/03	13:00	16(A)VD05	1	X	X
-002	Air	4/28/03	13:10	16(A)VD06	1	X	X

Bin #'s In/Out (For Lab Use Only)

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier:
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Comments

AAI RFS#0012304

Relinquished by:	Date / Time	Received by:	Date / Time
Print Name: Mike Heffner	4/28/03	Print Name:	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by:	Date / Time	Received by Laboratory: Leticia Zelaya	Date / Time 5/2/03 1200
Print Name:		Print Name: LETICIA ZELAYA	

Lab Use Only

Custody Seals: Intact Broken Absent
Sample Rec'd in Good Condition?: Y N
Sample Temperature: _____ Degrees Celsius
INSPECTED BY:
COMMENTS:

Special Instructions: 72 hr. Fax results

CLIENT RETAINS YELLOW COPY ONLY

PHONE (714) 751-3210 FAX (714) 751-6414

2960 AIRWAY AVENUE, SUITE B-101 COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0017304

July 10, 2000

Foster Wheeler Environmental
One Oxford Valley, Suite 200
Langhorne, PA 19047

Project Name: NWS-Earle
Project Number: ---

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
June 21, 2000	2	Air/Canister

The sample(s) received were analyzed for total petroleum hydrocarbons as gasoline using an HP gas chromatograph equipped with a flame ionization detector (GC/FID) and volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	Method Blank
PROJECT #:	---	**AAI RFS#**	0017304
PROJECT NAME:	NWS-Earle	**AAI ID#:**	Method Blank
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	N/A
INITIAL PRESSURE:	1.00 psia	**DATE RECEIVED:**	N/A
FINAL PRESSURE:	1.00 psia	**DATE ANALYZED:**	7/6/2000
PRES. DILUTION :	1.00		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.10	ND<	0.048
74-83-9	Bromomethane	ND<	0.10	ND<	0.026
75-01-04	Vinyl Chloride	ND<	0.10	ND<	0.039
75-00-3	Chloroethane	ND<	0.10	ND<	0.038
75-69-4	Freon 11	ND<	0.10	ND<	0.018
75-35-4	1,1-Dichloroethene	ND<	0.10	ND<	0.025
76-13-1	Freon 113	ND<	0.10	ND<	0.013
75-09-2	Methylene Chloride	ND<	0.10	ND<	0.029
75-35-3	1,1-Dichloroethane	ND<	0.10	ND<	0.025
156-60-5	trans-1,2-Dichloroethene	ND<	0.10	ND<	0.025
156-59-2	cis-1,2-Dichloroethene	ND<	0.10	ND<	0.025
67-66-3	Chloroform	ND<	0.10	ND<	0.020
71-55-6	1,1,1-Trichloroethane	ND<	0.10	ND<	0.018
56-23-5	Carbon Tetrachloride	ND<	0.10	ND<	0.016
71-43-2	Benzene	ND<	0.10	ND<	0.031
107-06-2	1,2-Dichloroethane	ND<	0.10	ND<	0.025
79-01-6	Trichloroethene	ND<	0.10	ND<	0.019
78-87-5	1,2-Dichloropropane	ND<	0.10	ND<	0.022
10061-02-6	trans-1,3-Dichloropropene	ND<	0.10	ND<	0.022
108-88-3	Toluene	ND<	0.10	ND<	0.027
10061-01-5	cis-1,3-Dichloropropene	ND<	0.10	ND<	0.022
79-00-5	1,1-2-Trichloroethane	ND<	0.10	ND<	0.018
127-18-4	Tetrachloroethene	ND<	0.10	ND<	0.015
106-93-4	Ethylene Dibromide	ND<	0.10	ND<	0.013
108-90-7	Chlorobenzene	ND<	0.10	ND<	0.022
100-41-4	Ethylbenzene	ND<	0.10	ND<	0.023
1330-20-7	m,p-Xylene	ND<	0.10	ND<	0.023
95-47-6	o-Xylene	ND<	0.10	ND<	0.023
100-42-5	Styrene	ND<	0.10	ND<	0.023
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.10	ND<	0.015
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.10	ND<	0.020
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.10	ND<	0.020
541-73-1	1,3-Dichlorobenzene	ND<	0.10	ND<	0.017
106-46-7	1,4-Dichlorobenzene	ND<	0.10	ND<	0.017
100-44-7	Chlorotoluene	ND<	0.10	ND<	0.019
95-50-1	1,2-Dichlorobenzene	ND<	0.10	ND<	0.017
67-64-1	Acetone	ND<	0.10	ND<	0.042
78-93-3	2-Butanone	ND<	0.10	ND<	0.034
108-10-1	4-methyl-2-pentanone	ND<	0.10	ND<	0.024
591-78-6	2-Hexanone	ND<	0.10	ND<	0.024

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	89	70-130
Toluene-d8 (SS2)	86	70-130
4- Bromofluorobenzene (SS3)	111	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: B Date: 7/10/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD007
PROJECT #:	---	**AAI RFS#**	0017304
PROJECT NAME:	NWS-Earle	**AAI ID#:**	0017304-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	6/19/2000
INITIAL PRESSURE:	12.00 psia	**DATE RECEIVED:**	6/21/2000
FINAL PRESSURE:	16.70 psia	**DATE ANALYZED:**	7/6/2000
PRES. DILUTION :	1.39		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.14	ND<	0.067
74-83-9	Bromomethane	ND<	0.14	ND<	0.036
75-01-04	Vinyl Chloride	ND<	0.14	ND<	0.054
75-00-3	Chloroethane	ND<	0.14	ND<	0.053
75-69-4	Freon 11	ND<	0.14	ND<	0.025
75-35-4	1,1-Dichloroethene	ND<	0.14	ND<	0.035
76-13-1	Freon 113	ND<	0.14	ND<	0.018
75-09-2	Methylene Chloride	ND<	0.14	ND<	0.040
75-35-3	1,1-Dichloroethane	ND<	0.14	ND<	0.034
156-60-5	trans-1,2-Dichloroethene	ND<	0.14	ND<	0.035
156-59-2	cis-1,2-Dichloroethene	ND<	0.14	ND<	0.035
67-66-3	Chloroform	ND<	0.14	ND<	0.029
71-55-6	1,1,1-Trichloroethane	ND<	0.14	ND<	0.026
56-23-5	Carbon Tetrachloride	ND<	0.14	ND<	0.022
71-43-2	Benzene	ND<	0.14	ND<	0.044
107-06-2	1,2-Dichloroethane	ND<	0.14	ND<	0.034
79-01-6	Trichloroethene	ND<	0.14	ND<	0.026
78-87-5	1,2-Dichloropropane	ND<	0.14	ND<	0.030
10061-02-6	trans-1,3-Dichloropropene	ND<	0.14	ND<	0.031
108-88-3	Toluene	ND<	0.14	ND<	0.037
10061-01-5	cis-1,3-Dichloropropene	ND<	0.14	ND<	0.031
79-00-5	1,1-2-Trichloroethane	ND<	0.14	ND<	0.026
127-18-4	Tetrachloroethene	ND<	0.14	ND<	0.021
106-93-4	Ethylene Dibromide	ND<	0.14	ND<	0.018
108-90-7	Chlorobenzene	ND<	0.14	ND<	0.030
100-41-4	Ethylbenzene	ND<	0.14	ND<	0.032
1330-20-7	m,p-Xylene	ND<	0.14	ND<	0.032
95-47-6	o-Xylene	ND<	0.14	ND<	0.032
100-42-5	Styrene	ND<	0.14	ND<	0.033
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.14	ND<	0.020
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.14	ND<	0.028
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.14	ND<	0.028
541-73-1	1,3-Dichlorobenzene	ND<	0.14	ND<	0.023
106-46-7	1,4-Dichlorobenzene	ND<	0.14	ND<	0.023
100-44-7	Chlorotoluene	ND<	0.14	ND<	0.027
95-50-1	1,2-Dichlorobenzene	ND<	0.14	ND<	0.023
67-64-1	Acetone	ND<	0.14	ND<	0.059
78-93-3	2-Butanone	ND<	0.14	ND<	0.047
108-10-1	4-methyl-2-pentanone	ND<	0.14	ND<	0.034
591-78-6	2-Hexanone	ND<	0.14	ND<	0.034

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	111	70-130
Toluene-d8 (SS2)	101	70-130
4- Bromofluorobenzene (SS3)	111	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: _____ Date: 7/10/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD002
PROJECT #:	---	**AAI RFS#**	0017304
PROJECT NAME:	NWS-Earle	**AAI ID#:**	0017304-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	6/19/2000
INITIAL PRESSURE:	12.30 psia	**DATE RECEIVED:**	6/21/2000
FINAL PRESSURE:	16.80 psia	**DATE ANALYZED:**	7/6/2000
PRES. DILUTION :	1.37		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.14	ND<	0.066
74-83-9	Bromomethane	ND<	0.14	ND<	0.035
75-01-04	Vinyl Chloride	ND<	0.14	ND<	0.053
75-00-3	Chloroethane	ND<	0.14	ND<	0.052
75-69-4	Freon 11	ND<	0.14	ND<	0.024
75-35-4	1,1-Dichloroethene	ND<	0.14	ND<	0.034
76-13-1	Freon 113	ND<	0.14	ND<	0.018
75-09-2	Methylene Chloride	ND<	0.14	ND<	0.039
75-35-3	1,1-Dichloroethane	ND<	0.14	ND<	0.034
156-60-5	trans-1,2-Dichloroethene	ND<	0.14	ND<	0.034
156-59-2	cis-1,2-Dichloroethene	ND<	0.14	ND<	0.034
67-66-3	Chloroform	ND<	0.14	ND<	0.028
71-55-6	1,1,1-Trichloroethane	ND<	0.14	ND<	0.025
56-23-5	Carbon Tetrachloride	ND<	0.14	ND<	0.022
71-43-2	Benzene	ND<	0.14	ND<	0.043
107-06-2	1,2-Dichloroethane	ND<	0.14	ND<	0.034
79-01-6	Trichloroethene	ND<	0.14	ND<	0.025
78-87-5	1,2-Dichloropropane	ND<	0.14	ND<	0.030
10061-02-6	trans-1,3-Dichloropropene	ND<	0.14	ND<	0.030
108-88-3	Toluene	ND<	0.14	ND<	0.036
10061-01-5	cis-1,3-Dichloropropene	ND<	0.14	ND<	0.030
79-00-5	1,1-2-Trichloroethane	ND<	0.14	ND<	0.025
127-18-4	Tetrachloroethene	ND<	0.14	ND<	0.020
106-93-4	Ethylene Dibromide	ND<	0.14	ND<	0.018
108-90-7	Chlorobenzene	ND<	0.14	ND<	0.030
100-41-4	Ethylbenzene	0.96	0.14	0.22	0.031
1330-20-7	m,p-Xylene	1.3	0.14	0.30	0.031
95-47-6	o-Xylene	0.87	0.14	0.20	0.031
100-42-5	Styrene	ND<	0.14	ND<	0.032
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.14	ND<	0.020
108-67-8	1,3,5-Trimethyl Benzene	0.76	0.14	0.16	0.028
95-63-6	1,2,4-Trimethyl Benzene	1.9	0.14	0.39	0.028
541-73-1	1,3-Dichlorobenzene	ND<	0.14	ND<	0.023
106-46-7	1,4-Dichlorobenzene	ND<	0.14	ND<	0.023
100-44-7	Chlorotoluene	ND<	0.14	ND<	0.026
95-50-1	1,2-Dichlorobenzene	ND<	0.14	ND<	0.023
67-64-1	Acetone	ND<	0.14	ND<	0.058
78-93-3	2-Butanone	ND<	0.14	ND<	0.046
108-10-1	4-methyl-2-pentanone	ND<	0.14	ND<	0.033
591-78-6	2-Hexanone	ND<	0.14	ND<	0.033

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	100	70-130
Toluene-d8 (SS2)	92	70-130
4- Bromofluorobenzene (SS3)	112	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: B Date: 7/10/00

ANALYTICAL RESULTS

AAI RFS #: 0017304

Client Name: Foster Wheeler Environmental
Project Name: NWS-Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 6/19/2000
Date(s) Analyzed: 6/26/2000
Analytical Method: CARB/EPA
Chemist: AS

	Units	16 (A) VD007 0017304 -001	16 (A) VD002 0017304 -002	Method Blank
EPA 8015mod				
TPH as gasoline	(ppm(v))	ND<10	ND<10	ND<10

	Units	16 (A) VD007 0017304 -001	16 (A) VD002 0017304 -002	Method Blank
EPA 8015mod				
TPH as gasoline	(mg/m3)	ND<1.0	ND<1.0	ND<1.0

Approved by: _____ Date: 7/25/00

QUALITY CONTROL

AAI RFS #: 0017304

Client Name: Foster Wheeler Environmental
Project Name: NWS-Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 6/19/2000
Date(s) Analyzed: 6/26/2000
Analytical Method: CARB/EPA
Chemist: AS

	Sample Result 0017304-002 (ppm(v))	Duplicate Result 0017304-002 (ppm(v))	RPD (%)	Quality C ntrol Limits (%)
EPA 8015mod				
TPH as gasoline	ND<10	ND<10	---	30

	Sample Result 0017304-002 (mg/m3)	Duplicate Result 0017304-002 (mg/m3)	RPD (%)	Quality C ntrol Limits (%)
EPA 8015mod				
TPH as gasoline	ND<1.0	ND<1.0	---	30

Approved by: 3 Date: 7/10/00

FOSTER WHEELER ENVIRONMENTAL CORPORATION

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Mike Heffron

PHONE: (215) 702-4015 FAX: (215) 702-4045

PROJECT INFORMATION

PROJECT NAME: NWS-Eagle

PROJECT NO.:

PROJECT MANAGER: Mike Heffron

LOCATION:

PHONE: (215) 702-4015 FAX: (215) 702-4045

BILLING INFORMATION

BILL TO: Foster Wheeler PO #:

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Mike Heffron PHONE:

DATA TURNAROUND INFORMATION

FAX: 3 DAYS *

HARD COPY: DAYS *

EDD: DAYS *

* TO BE APPROVED BY CHEMTECH

** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ NJ REDUCED
- ☐ NJ CLP
- ☐ EDD FORMAT:
- ☐ USEPA CLP
- ☐ NYS ASP "B"
- ☐ NYS ASP "A"
- ☐ EDD

ANALYSIS

1 TPH 2 VOCs 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 001	16(A)VD007	Air		X	6/19/00	14:20	1	X	X								
2. 002	16(A)VD002	Air		X	6/19/00	15:00	1	X	X								
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	

← Specify Preservativ
A – HCl B – HN
C – H_2SO_4 D – Na
E – ICE F – Oth

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/19/00	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 6/21/00 1230	RECEIVED FOR LAB BY: 3. Leticia Zelaya

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler

Comments:

AAI RFS# 0017304

Page of

Shipment Complete: Yes No

Ver. 6/2000

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY [redacted]

PHONE (714) 751-3210 FAX (714) 751-6414

2960 AIRWAY AVENUE, SUITE B-101 COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0020704

August 1, 2000

Foster Wheeler Environmental
One Oxford Valley, Suite 200
Langhorne, PA 19047

Project Name: Naval Weapons Station Earle
Project Number: ---

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
July 25, 2000	3	Air/Canister

The sample(s) received were analyzed for total petroleum hydrocarbons as gasoline using an HP gas chromatograph equipped with a flame ionization detector (GC/FID) and volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	Method Blank
PROJECT #:	—	**AAI RFS#**	0020704
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	Method Blank
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	N/A
INITIAL PRESSURE:	1.00 psia	**DATE RECEIVED:**	N/A
FINAL PRESSURE:	1.00 psia	**DATE ANALYZED:**	7/25/2000
PRES. DILUTION :	1.00		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.10	ND<	0.048
74-83-9	Bromomethane	ND<	0.10	ND<	0.026
75-01-04	Vinyl Chloride	ND<	0.10	ND<	0.039
75-00-3	Chloroethane	ND<	0.10	ND<	0.038
75-69-4	Freon 11	ND<	0.10	ND<	0.018
75-35-4	1,1-Dichloroethene	ND<	0.10	ND<	0.025
76-13-1	Freon 113	ND<	0.10	ND<	0.013
75-09-2	Methylene Chloride	ND<	0.10	ND<	0.029
75-35-3	1,1-Dichloroethane	ND<	0.10	ND<	0.025
156-60-5	trans-1,2-Dichloroethene	ND<	0.10	ND<	0.025
156-59-2	cis-1,2-Dichloroethene	ND<	0.10	ND<	0.025
67-66-3	Chloroform	ND<	0.10	ND<	0.020
71-55-6	1,1,1-Trichloroethane	ND<	0.10	ND<	0.018
56-23-5	Carbon Tetrachloride	ND<	0.10	ND<	0.016
71-43-2	Benzene	ND<	0.10	ND<	0.031
107-06-2	1,2-Dichloroethane	ND<	0.10	ND<	0.025
79-01-6	Trichloroethene	ND<	0.10	ND<	0.019
78-87-5	1,2-Dichloropropane	ND<	0.10	ND<	0.022
10061-02-6	trans-1,3-Dichloropropene	ND<	0.10	ND<	0.022
108-88-3	Toluene	ND<	0.10	ND<	0.027
10061-01-5	cis-1,3-Dichloropropene	ND<	0.10	ND<	0.022
79-00-5	1,1-2-Trichloroethane	ND<	0.10	ND<	0.018
127-18-4	Tetrachloroethene	ND<	0.10	ND<	0.015
106-93-4	Ethylene Dibromide	ND<	0.10	ND<	0.013
108-90-7	Chlorobenzene	ND<	0.10	ND<	0.022
100-41-4	Ethylbenzene	ND<	0.10	ND<	0.023
1330-20-7	m,p-Xylene	ND<	0.10	ND<	0.023
95-47-6	o-Xylene	ND<	0.10	ND<	0.023
100-42-5	Styrene	ND<	0.10	ND<	0.023
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.10	ND<	0.015
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.10	ND<	0.020
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.10	ND<	0.020
541-73-1	1,3-Dichlorobenzene	ND<	0.10	ND<	0.017
106-46-7	1,4-Dichlorobenzene	ND<	0.10	ND<	0.017
100-44-7	Chlorotoluene	ND<	0.10	ND<	0.019
95-50-1	1,2-Dichlorobenzene	ND<	0.10	ND<	0.017
67-64-1	Acetone	ND<	0.10	ND<	0.042
78-93-3	2-Butanone	ND<	0.10	ND<	0.034
108-10-1	4-methyl-2-pentanone	ND<	0.10	ND<	0.024
591-78-6	2-Hexanone	ND<	0.10	ND<	0.024

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	100	70-130
Toluene-d8 (SS2)	98	70-130
4- Bromofluorobenzene (SS3)	100	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: C Date: 8/1/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD008
PROJECT #:	---	**AAI RFS#**	0020704
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	0020704-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.025 Liter	**DATE SAMPLED:**	7/21/2000
INITIAL PRESSURE:	13.47 psia	**DATE RECEIVED:**	7/25/2000
FINAL PRESSURE:	17.30 psia	**DATE ANALYZED:**	7/25/2000
PRES. DILUTION :	1.28		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.26	ND<	0.124
74-83-9	Bromomethane	ND<	0.26	ND<	0.066
75-01-04	Vinyl Chloride	ND<	0.26	ND<	0.101
75-00-3	Chloroethane	ND<	0.26	ND<	0.097
75-69-4	Freon 11	ND<	0.26	ND<	0.046
75-35-4	1,1-Dichloroethene	ND<	0.26	ND<	0.065
76-13-1	Freon 113	ND<	0.26	ND<	0.034
75-09-2	Methylene Chloride	ND<	0.26	ND<	0.074
75-35-3	1,1-Dichloroethane	ND<	0.26	ND<	0.063
156-60-5	trans-1,2-Dichloroethene	ND<	0.26	ND<	0.065
156-59-2	cis-1,2-Dichloroethene	ND<	0.26	ND<	0.065
67-66-3	Chloroform	ND<	0.26	ND<	0.053
71-55-6	1,1,1-Trichloroethane	ND<	0.26	ND<	0.047
56-23-5	Carbon Tetrachloride	ND<	0.26	ND<	0.041
71-43-2	Benzene	36	0.26	11	0.080
107-06-2	1,2-Dichloroethane	ND<	0.26	ND<	0.063
79-01-6	Trichloroethene	ND<	0.26	ND<	0.048
78-87-5	1,2-Dichloropropane	ND<	0.26	ND<	0.056
10061-02-6	trans-1,3-Dichloropropene	ND<	0.26	ND<	0.057
108-88-3	Toluene	9.5	0.26	2.5	0.068
10061-01-5	cis-1,3-Dichloropropene	ND<	0.26	ND<	0.057
79-00-5	1,1-2-Trichloroethane	ND<	0.26	ND<	0.047
127-18-4	Tetrachloroethene	ND<	0.26	ND<	0.038
106-93-4	Ethylene Dibromide	ND<	0.26	ND<	0.033
108-90-7	Chlorobenzene	ND<	0.26	ND<	0.056
100-41-4	Ethylbenzene	12	0.26	2.9	0.059
1330-20-7	m,p-Xylene	18	0.26	4.1	0.059
95-47-6	o-Xylene	10	0.26	2.2	0.059
100-42-5	Styrene	ND<	0.26	ND<	0.060
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.26	ND<	0.037
108-67-8	1,3,5-Trimethyl Benzene	5.8	0.26	1.2	0.052
95-63-6	1,2,4-Trimethyl Benzene	12	0.26	2.5	0.052
541-73-1	1,3-Dichlorobenzene	2.1	0.26	0.35	0.043
106-46-7	1,4-Dichlorobenzene	2.4	0.26	0.40	0.043
100-44-7	Chlorotoluene	ND<	0.26	ND<	0.050
95-50-1	1,2-Dichlorobenzene	2.4	0.26	0.40	0.043
67-64-1	Acetone	ND<	0.26	ND<	0.108
78-93-3	2-Butanone	ND<	0.26	ND<	0.087
108-10-1	4-methyl-2-pentanone	ND<	0.26	ND<	0.063
591-78-6	2-Hexanone	ND<	0.26	ND<	0.063

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	95	70-130
Toluene-d8 (SS2)	100	70-130
4- Bromofluorobenzene (SS3)	121	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: C Date: 8/1/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (A) VD009
PROJECT #:	---	**AAI RFS#**	0020704
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	0020704-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	7/21/2000
INITIAL PRESSURE:	13.37 psia	**DATE RECEIVED:**	7/25/2000
FINAL PRESSURE:	17.50 psia	**DATE ANALYZED:**	7/25/2000
PRES. DILUTION :	1.31		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.13	ND<	0.063
74-83-9	Bromomethane	ND<	0.13	ND<	0.034
75-01-04	Vinyl Chloride	ND<	0.13	ND<	0.051
75-00-3	Chloroethane	ND<	0.13	ND<	0.050
75-69-4	Freon 11	ND<	0.13	ND<	0.023
75-35-4	1,1-Dichloroethene	ND<	0.13	ND<	0.033
76-13-1	Freon 113	ND<	0.13	ND<	0.017
75-09-2	Methylene Chloride	ND<	0.13	ND<	0.038
75-35-3	1,1-Dichloroethane	ND<	0.13	ND<	0.032
156-60-5	trans-1,2-Dichloroethene	ND<	0.13	ND<	0.033
156-59-2	cis-1,2-Dichloroethene	ND<	0.13	ND<	0.033
67-66-3	Chloroform	ND<	0.13	ND<	0.027
71-55-6	1,1,1-Trichloroethane	ND<	0.13	ND<	0.024
56-23-5	Carbon Tetrachloride	ND<	0.13	ND<	0.021
71-43-2	Benzene	ND<	0.13	ND<	0.041
107-06-2	1,2-Dichloroethane	ND<	0.13	ND<	0.032
79-01-6	Trichloroethene	ND<	0.13	ND<	0.024
78-87-5	1,2-Dichloropropane	ND<	0.13	ND<	0.028
10061-02-6	trans-1,3-Dichloropropene	ND<	0.13	ND<	0.029
108-88-3	Toluene	ND<	0.13	ND<	0.035
10061-01-5	cis-1,3-Dichloropropene	ND<	0.13	ND<	0.029
79-00-5	1,1-2-Trichloroethane	ND<	0.13	ND<	0.024
127-18-4	Tetrachloroethene	ND<	0.13	ND<	0.019
106-93-4	Ethylene Dibromide	ND<	0.13	ND<	0.017
108-90-7	Chlorobenzene	ND<	0.13	ND<	0.028
100-41-4	Ethylbenzene	ND<	0.13	ND<	0.030
1330-20-7	m,p-Xylene	ND<	0.13	ND<	0.030
95-47-6	o-Xylene	ND<	0.13	ND<	0.030
100-42-5	Styrene	ND<	0.13	ND<	0.031
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.13	ND<	0.019
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.13	ND<	0.027
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.13	ND<	0.027
541-73-1	1,3-Dichlorobenzene	ND<	0.13	ND<	0.022
106-46-7	1,4-Dichlorobenzene	ND<	0.13	ND<	0.022
100-44-7	Chlorotoluene	ND<	0.13	ND<	0.025
95-50-1	1,2-Dichlorobenzene	ND<	0.13	ND<	0.022
67-64-1	Acetone	ND<	0.13	ND<	0.055
78-93-3	2-Butanone	ND<	0.13	ND<	0.044
108-10-1	4-methyl-2-pentanone	ND<	0.13	ND<	0.032
591-78-6	2-Hexanone	ND<	0.13	ND<	0.032

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	104	70-130
Toluene-d8 (SS2)	97	70-130
4- Bromofluorobenzene (SS3)	103	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: 13 Date: 8/1/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Environmental	**CLIENT SAMPLE ID:**	16 (B) VD003
PROJECT #:	---	**AAI RFS#**	0020704
PROJECT NAME:	Naval Weapons Station Earle	**AAI ID#:**	0020704-003
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.025 Liter	**DATE SAMPLED:**	7/21/2000
INITIAL PRESSURE:	13.72 psia	**DATE RECEIVED:**	7/25/2000
FINAL PRESSURE:	17.90 psia	**DATE ANALYZED:**	7/25/2000
PRES. DILUTION :	1.30		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.26	ND<	0.126
74-83-9	Bromomethane	ND<	0.26	ND<	0.067
75-01-04	Vinyl Chloride	ND<	0.26	ND<	0.102
75-00-3	Chloroethane	ND<	0.26	ND<	0.099
75-69-4	Freon 11	ND<	0.26	ND<	0.046
75-35-4	1,1-Dichloroethene	ND<	0.26	ND<	0.066
76-13-1	Freon 113	ND<	0.26	ND<	0.034
75-09-2	Methylene Chloride	ND<	0.26	ND<	0.075
75-35-3	1,1-Dichloroethane	ND<	0.26	ND<	0.064
156-60-5	trans-1,2-Dichloroethene	ND<	0.26	ND<	0.066
156-59-2	cis-1,2-Dichloroethene	ND<	0.26	ND<	0.066
67-66-3	Chloroform	ND<	0.26	ND<	0.053
71-55-6	1,1,1-Trichloroethane	ND<	0.26	ND<	0.048
56-23-5	Carbon Tetrachloride	ND<	0.26	ND<	0.041
71-43-2	Benzene	ND<	0.26	ND<	0.082
107-06-2	1,2-Dichloroethane	ND<	0.26	ND<	0.064
79-01-6	Trichloroethene	ND<	0.26	ND<	0.049
78-87-5	1,2-Dichloropropane	ND<	0.26	ND<	0.056
10061-02-6	trans-1,3-Dichloropropene	ND<	0.26	ND<	0.058
108-88-3	Toluene	ND<	0.26	ND<	0.069
10061-01-5	cis-1,3-Dichloropropene	ND<	0.26	ND<	0.058
79-00-5	1,1-2-Trichloroethane	ND<	0.26	ND<	0.048
127-18-4	Tetrachloroethene	ND<	0.26	ND<	0.038
106-93-4	Ethylene Dibromide	ND<	0.26	ND<	0.034
108-90-7	Chlorobenzene	ND<	0.26	ND<	0.057
100-41-4	Ethylbenzene	0.32	0.26	0.07	0.060
1330-20-7	m,p-Xylene	0.50	0.26	0.11	0.060
95-47-6	o-Xylene	0.31	0.26	0.07	0.060
100-42-5	Styrene	ND<	0.26	ND<	0.061
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.26	ND<	0.038
108-67-8	1,3,5-Trimethyl Benzene	0.57	0.26	0.12	0.053
95-63-6	1,2,4-Trimethyl Benzene	1.5	0.26	0.30	0.053
541-73-1	1,3-Dichlorobenzene	ND<	0.26	ND<	0.043
106-46-7	1,4-Dichlorobenzene	ND<	0.26	ND<	0.043
100-44-7	Chlorotoluene	ND<	0.26	ND<	0.050
95-50-1	1,2-Dichlorobenzene	ND<	0.26	ND<	0.043
67-64-1	Acetone	ND<	0.26	ND<	0.110
78-93-3	2-Butanone	ND<	0.26	ND<	0.089
108-10-1	4-methyl-2-pentanone	ND<	0.26	ND<	0.064
591-78-6	2-Hexanone	ND<	0.26	ND<	0.064

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	104	70-130
Toluene-d8 (SS2)	97	70-130
4- Bromofluorobenzene (SS3)	104	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: C3 Date: 8/1/00

ANALYTICAL RESULTS

AAI RFS #: 0020704

Client Name: Foster Wheeler Environmental
Project Name: Naval Weapons Station Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 7/21/2000
Date(s) Analyzed: 7/27/2000
Analytical Method: CARB/EPA
Chemist: AS

	Units	16 (A) VD008 0020704 -001	16 (A) VD009 0020704 -002	16 (B) VD003 0020704 -003	Method Blank
EPA 8015mod					
TPH as gasoline	(ppm(v))	177	ND<10	ND<10	ND<10

	Units	16 (A) VD008 0020704 -001	16 (A) VD009 0020704 -002	16 (B) VD003 0020704 -003	Method Blank
EPA 8015mod					
TPH as gasoline	(mg/m3)	1,170	ND<1.0	ND<1.0	ND<1.0

Approved by: L3 Date: 8/1/00

QUALITY CONTROL

AAI RFS #: 0020704

Client Name: Foster Wheeler Environmental
Project Name: Naval Weapons Station Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 7/21/2000
Date(s) Analyzed: 7/27/2000
Analytical Method: CARB/EPA
Chemist: AS

	Sample Result 0020704-003 (ppm(v))	Duplicate Result 0020704-003 (ppm(v))	RPD (%)	Quality C ntrol Limits (%)
EPA 8015mod				
TPH as gasoline	ND<10	ND<10	---	30

	Sample Result 0020704-003 (mg/m3)	Duplicate Result 0020704-003 (mg/m3)	RPD (%)	Quality C ntrol Limits (%)
EPA 8015mod				
TPH as gasoline	ND<1.0	ND<1.0	---	30

Approved by: B Date: 8/1/00

CHEMTECH

CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

~~CHEMTECH JOB NO.~~: AAIRFS#00 20704
CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Foster Wheeler
ADDRESS: One Oxford Valley Suite 200
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Mike Heffner
PHONE: FAX: (215) 702-4045

PROJECT INFORMATION

PROJECT NAME: Naval Weapons Station Earle
PROJECT NO.:
PROJECT MANAGER: Mike Heffner
LOCATION:
PHONE: FAX:

BILLING INFORMATION

BILL TO: Same as Client PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: 3 DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

ANALYSIS

TPH VOCs

~~CHEMTECH~~ AAIRFS SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS (← Specify Preservatives A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other)
1. -001	16(A) VD008	Air		X	7/25/00	11:00		X	X								
2. -002	16(A) VD009	↓		↓	↓	11:10		X	X								72-hr
3. -003	16(B) VD003	↓		↓	↓	11:30		X	X								FAX
4.																	turn-
5.																	around
6.																	
7.																	
8.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	7/25/00	1. 7/25/00 2:00 PM
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME:	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler _____
Comments:

Page _____ of _____ Shipment Complete: Yes _____ No _____

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

33444

PHONE (714) 751-3210 FAX (714) 751-6414

3190-A AIRPORT LOOP DRIVE COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0025604

October 9, 2000

Foster Wheeler Company
One Oxford Valley, Suite 100
Langhorne, PA 19047

Project Name: Naval Weapons Station - Earle
Project Number: ---

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
September 12, 2000	3	Air/Canister

The sample(s) received were analyzed for total petroleum hydrocarbons as gasoline using an HP gas chromatograph equipped with a flame ionization detector (GC/FID) and volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Company
PROJECT #: ---
PROJECT NAME: Naval Weapons Station - Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.05 Liter
INITIAL PRESSURE: 1.00 psia
FINAL PRESSURE: 1.00 psia
PRES. DILUTION : 1.00
DILUTION FACTOR: 1

CLIENT SAMPLE ID: Method Blank
AAI RFS# 0025604
AAI ID#: Method Blank

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 9/17/2000

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.10	ND<	0.048
74-83-9	Bromomethane	ND<	0.10	ND<	0.026
75-01-04	Vinyl Chloride	ND<	0.10	ND<	0.039
75-00-3	Chloroethane	ND<	0.10	ND<	0.038
75-69-4	Freon 11	ND<	0.10	ND<	0.018
75-35-4	1,1-Dichloroethene	ND<	0.10	ND<	0.025
76-13-1	Freon 113	ND<	0.10	ND<	0.013
75-09-2	Methylene Chloride	ND<	0.10	ND<	0.029
75-35-3	1,1-Dichloroethane	ND<	0.10	ND<	0.025
156-60-5	trans-1,2-Dichloroethene	ND<	0.10	ND<	0.025
156-59-2	cis-1,2-Dichloroethene	ND<	0.10	ND<	0.025
67-66-3	Chloroform	ND<	0.10	ND<	0.020
71-55-6	1,1,1-Trichloroethane	ND<	0.10	ND<	0.018
56-23-5	Carbon Tetrachloride	ND<	0.10	ND<	0.016
71-43-2	Benzene	ND<	0.10	ND<	0.031
107-06-2	1,2-Dichloroethane	ND<	0.10	ND<	0.025
79-01-6	Trichloroethene	ND<	0.10	ND<	0.019
78-87-5	1,2-Dichloropropane	ND<	0.10	ND<	0.022
10061-02-6	trans-1,3-Dichloropropene	ND<	0.10	ND<	0.022
108-88-3	Toluene	ND<	0.10	ND<	0.027
10061-01-5	cis-1,3-Dichloropropene	ND<	0.10	ND<	0.022
79-00-5	1,1-2-Trichloroethane	ND<	0.10	ND<	0.018
127-18-4	Tetrachloroethene	ND<	0.10	ND<	0.015
106-93-4	Ethylene Dibromide	ND<	0.10	ND<	0.013
108-90-7	Chlorobenzene	ND<	0.10	ND<	0.022
100-41-4	Ethylbenzene	ND<	0.10	ND<	0.023
1330-20-7	m,p-Xylene	ND<	0.10	ND<	0.023
95-47-6	o-Xylene	ND<	0.10	ND<	0.023
100-42-5	Styrene	ND<	0.10	ND<	0.023
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.10	ND<	0.015
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.10	ND<	0.020
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.10	ND<	0.020
541-73-1	1,3-Dichlorobenzene	ND<	0.10	ND<	0.017
106-46-7	1,4-Dichlorobenzene	ND<	0.10	ND<	0.017
100-44-7	Chlorotoluene	ND<	0.10	ND<	0.019
95-50-1	1,2-Dichlorobenzene	ND<	0.10	ND<	0.017
67-64-1	Acetone	ND<	0.10	ND<	0.042
78-93-3	2-Butanone	ND<	0.10	ND<	0.034
108-10-1	4-methyl-2-pentanone	ND<	0.10	ND<	0.024
591-78-6	2-Hexanone	ND<	0.10	ND<	0.024

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	108	70-130
Toluene-d8 (SS2)	106	70-130
4- Bromofluorobenzene (SS3)	106	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: _____ Date: 9/9/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16(A)VD009
PROJECT #:	---	**AAI RFS#**	0025604
PROJECT NAME:	Naval Weapons Station - Earle	**AAI ID#:**	0025604-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	**DATE SAMPLED:**	9/7/2000
INITIAL PRESSURE:	12.20 psia	**DATE RECEIVED:**	9/12/2000
FINAL PRESSURE:	17.70 psia	**DATE ANALYZED:**	9/17/2000
PRES. DILUTION :	1.45		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.725	ND<	0.351
74-83-9	Bromomethane	ND<	0.725	ND<	0.187
75-01-04	Vinyl Chloride	ND<	0.725	ND<	0.284
75-00-3	Chloroethane	ND<	0.725	ND<	0.275
75-69-4	Freon 11	ND<	0.725	ND<	0.129
75-35-4	1,1-Dichloroethene	ND<	0.725	ND<	0.183
76-13-1	Freon 113	ND<	0.725	ND<	0.095
75-09-2	Methylene Chloride	ND<	0.725	ND<	0.209
75-35-3	1,1-Dichloroethane	ND<	0.725	ND<	0.179
156-60-5	trans-1,2-Dichloroethene	ND<	0.725	ND<	0.183
156-59-2	cis-1,2-Dichloroethene	ND<	0.725	ND<	0.183
67-66-3	Chloroform	ND<	0.725	ND<	0.149
71-55-6	1,1,1-Trichloroethane	ND<	0.725	ND<	0.133
56-23-5	Carbon Tetrachloride	ND<	0.725	ND<	0.115
71-43-2	Benzene	51	0.725	16	0.227
107-06-2	1,2-Dichloroethane	ND<	0.725	ND<	0.179
79-01-6	Trichloroethene	ND<	0.725	ND<	0.135
78-87-5	1,2-Dichloropropane	ND<	0.725	ND<	0.157
10061-02-6	trans-1,3-Dichloropropene	ND<	0.725	ND<	0.160
108-88-3	Toluene	11	0.725	3.0	0.193
10061-01-5	cis-1,3-Dichloropropene	ND<	0.725	ND<	0.160
79-00-5	1,1-2-Trichloroethane	ND<	0.725	ND<	0.133
127-18-4	Tetrachloroethene	ND<	0.725	ND<	0.107
106-93-4	Ethylene Dibromide	ND<	0.725	ND<	0.094
108-90-7	Chlorobenzene	ND<	0.725	ND<	0.158
100-41-4	Ethylbenzene	20	0.725	4.5	0.167
1330-20-7	m,p-Xylene	58	0.725	13	0.167
95-47-6	o-Xylene	12	0.725	2.9	0.167
100-42-5	Styrene	ND<	0.725	ND<	0.170
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.725	ND<	0.106
108-67-8	1,3,5-Trimethyl Benzene	7.4	0.725	1.5	0.148
95-63-6	1,2,4-Trimethyl Benzene	19	0.725	3.9	0.148
541-73-1	1,3-Dichlorobenzene	ND<	0.725	ND<	0.121
106-46-7	1,4-Dichlorobenzene	ND<	0.725	ND<	0.121
100-44-7	Chlorotoluene	ND<	0.725	ND<	0.140
95-50-1	1,2-Dichlorobenzene	ND<	0.725	ND<	0.121
67-64-1	Acetone	ND<	0.725	ND<	0.306
78-93-3	2-Butanone	ND<	0.725	ND<	0.246
108-10-1	4-methyl-2-pentanone	ND<	0.725	ND<	0.177
591-78-6	2-Hexanone	ND<	0.725	ND<	0.177

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	94	70-130
Toluene-d8 (SS2)	103	70-130
4- Bromofluorobenzene (SS3)	107	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: _____ Date: 10/9/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16(A)VD0010
PROJECT #:	---	**AAI RFS#**	0025604
PROJECT NAME:	Naval Weapons Station - Earle	**AAI ID#:**	0025604-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	9/7/2000
INITIAL PRESSURE:	20.05 psia	**DATE RECEIVED:**	9/12/2000
FINAL PRESSURE:	17.00 psia	**DATE ANALYZED:**	9/17/2000
PRES. DILUTION :	0.85		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.085	ND<	0.041
74-83-9	Bromomethane	ND<	0.085	ND<	0.022
75-01-04	Vinyl Chloride	ND<	0.085	ND<	0.033
75-00-3	Chloroethane	ND<	0.085	ND<	0.032
75-69-4	Freon 11	ND<	0.085	ND<	0.015
75-35-4	1,1-Dichloroethene	ND<	0.085	ND<	0.021
76-13-1	Freon 113	ND<	0.085	ND<	0.011
75-09-2	Methylene Chloride	ND<	0.085	ND<	0.024
75-35-3	1,1-Dichloroethane	ND<	0.085	ND<	0.021
156-60-5	trans-1,2-Dichloroethene	ND<	0.085	ND<	0.021
156-59-2	cis-1,2-Dichloroethene	ND<	0.085	ND<	0.021
67-66-3	Chloroform	ND<	0.085	ND<	0.017
71-55-6	1,1,1-Trichloroethane	ND<	0.085	ND<	0.016
56-23-5	Carbon Tetrachloride	ND<	0.085	ND<	0.013
71-43-2	Benzene	0.095	0.085	0.030	0.027
107-06-2	1,2-Dichloroethane	ND<	0.085	ND<	0.021
79-01-6	Trichloroethene	ND<	0.085	ND<	0.016
78-87-5	1,2-Dichloropropane	ND<	0.085	ND<	0.018
10061-02-6	trans-1,3-Dichloropropene	ND<	0.085	ND<	0.019
108-88-3	Toluene	ND<	0.085	ND<	0.023
10061-01-5	cis-1,3-Dichloropropene	ND<	0.085	ND<	0.019
79-00-5	1,1-2-Trichloroethane	ND<	0.085	ND<	0.016
127-18-4	Tetrachloroethene	ND<	0.085	ND<	0.013
106-93-4	Ethylene Dibromide	ND<	0.085	ND<	0.011
108-90-7	Chlorobenzene	ND<	0.085	ND<	0.018
100-41-4	Ethylbenzene	0.12	0.085	0.029	0.020
1330-20-7	m,p-Xylene	0.37	0.085	0.086	0.020
95-47-6	o-Xylene	0.097	0.085	0.022	0.020
100-42-5	Styrene	ND<	0.085	ND<	0.020
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.085	ND<	0.012
108-67-8	1,3,5-Trimethyl Benzene	0.095	0.085	0.019	0.017
95-63-6	1,2,4-Trimethyl Benzene	0.29	0.085	0.059	0.017
541-73-1	1,3-Dichlorobenzene	ND<	0.085	ND<	0.014
106-46-7	1,4-Dichlorobenzene	ND<	0.085	ND<	0.014
100-44-7	Chlorotoluene	ND<	0.085	ND<	0.016
95-50-1	1,2-Dichlorobenzene	ND<	0.085	ND<	0.014
67-64-1	Acetone	ND<	0.085	ND<	0.036
78-93-3	2-Butanone	ND<	0.085	ND<	0.029
108-10-1	4-methyl-2-pentanone	ND<	0.085	ND<	0.021
591-78-6	2-Hexanone	ND<	0.085	ND<	0.021

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	100	70-130
Toluene-d8 (SS2)	98	70-130
4- Bromofluorobenzene (SS3)	99	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: B Date: 9/9/00

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16(A)VD004
PROJECT #:	---	**AAI RFS#**	0025604
PROJECT NAME:	Naval Weapons Station - Earle	**AAI ID#:**	0025604-003
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	**DATE SAMPLED:**	9/7/2000
INITIAL PRESSURE:	12.25 psia	**DATE RECEIVED:**	9/12/2000
FINAL PRESSURE:	18.60 psia	**DATE ANALYZED:**	9/17/2000
PRES. DILUTION :	1.52		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.759	ND<	0.368
74-83-9	Bromomethane	ND<	0.759	ND<	0.196
75-01-04	Vinyl Chloride	ND<	0.759	ND<	0.297
75-00-3	Chloroethane	ND<	0.759	ND<	0.288
75-69-4	Freon 11	ND<	0.759	ND<	0.135
75-35-4	1,1-Dichloroethene	ND<	0.759	ND<	0.192
76-13-1	Freon 113	ND<	0.759	ND<	0.099
75-09-2	Methylene Chloride	ND<	0.759	ND<	0.219
75-35-3	1,1-Dichloroethane	ND<	0.759	ND<	0.188
156-60-5	trans-1,2-Dichloroethene	ND<	0.759	ND<	0.192
156-59-2	cis-1,2-Dichloroethene	ND<	0.759	ND<	0.192
67-66-3	Chloroform	ND<	0.759	ND<	0.156
71-55-6	1,1,1-Trichloroethane	ND<	0.759	ND<	0.139
56-23-5	Carbon Tetrachloride	ND<	0.759	ND<	0.121
71-43-2	Benzene	2.9	0.759	0.90	0.238
107-06-2	1,2-Dichloroethane	ND<	0.759	ND<	0.188
79-01-6	Trichloroethene	ND<	0.759	ND<	0.141
78-87-5	1,2-Dichloropropane	ND<	0.759	ND<	0.164
10061-02-6	trans-1,3-Dichloropropene	ND<	0.759	ND<	0.167
108-88-3	Toluene	1.4	0.759	0.36	0.202
10061-01-5	cis-1,3-Dichloropropene	ND<	0.759	ND<	0.167
79-00-5	1,1-2-Trichloroethane	ND<	0.759	ND<	0.139
127-18-4	Tetrachloroethene	ND<	0.759	ND<	0.112
106-93-4	Ethylene Dibromide	ND<	0.759	ND<	0.099
108-90-7	Chlorobenzene	ND<	0.759	ND<	0.165
100-41-4	Ethylbenzene	20	0.759	4.7	0.175
1330-20-7	m,p-Xylene	58	0.759	13	0.175
95-47-6	o-Xylene	17	0.759	3.8	0.175
100-42-5	Styrene	ND<	0.759	ND<	0.178
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.759	ND<	0.111
108-67-8	1,3,5-Trimethyl Benzene	12	0.759	2.5	0.154
95-63-6	1,2,4-Trimethyl Benzene	29	0.759	5.8	0.154
541-73-1	1,3-Dichlorobenzene	ND<	0.759	ND<	0.126
106-46-7	1,4-Dichlorobenzene	ND<	0.759	ND<	0.126
100-44-7	Chlorotoluene	ND<	0.759	ND<	0.147
95-50-1	1,2-Dichlorobenzene	ND<	0.759	ND<	0.126
67-64-1	Acetone	ND<	0.759	ND<	0.320
78-93-3	2-Butanone	ND<	0.759	ND<	0.258
108-10-1	4-methyl-2-pentanone	ND<	0.759	ND<	0.186
591-78-6	2-Hexanone	ND<	0.759	ND<	0.185

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	100	70-130
Toluene-d8 (SS2)	99	70-130
4- Bromofluorobenzene (SS3)	106	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: _____ Date: 10/9/00

ANALYTICAL RESULTS

AAI RFS #: 0025604

Client Name: Foster Wheeler Company
Project Name: Naval Weapons Station - Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 9/7/2000
Date(s) Analyzed: 9/13/2000
Analytical Method: CARB/EPA
Chemist: AS

	Units	16(A)VD009 0025604 -001	16(A)VD0010 0025604 -002	16(A)VD004 0025604 -003	Method Blank
EPA 8015mod					
TPH as gasoline	(ppm(v))	315	ND<10	180	ND<10

	Units	16(A)VD009 0025604 -001	16(A)VD0010 0025604 -002	16(A)VD004 0025604 -003	Method Blank
EPA 8015mod					
TPH as gasoline	(mg/m3)	1,608	ND<1.0	956	ND<1.0

Approved by: [illegible] Date: 10/9/00

QUALITY CONTROL

AAI RFS #: 0025604

Client Name: Foster Wheeler Company
Project Name: Naval Weapons Station - Earle
Project #: ---
Matrix: Air/Canister

Date(s) Sampled: 9/7/2000
Date(s) Analyzed: 9/13/2000
Analytical Method: CARB/EPA
Chemist: AS

	Sample Result 0025604-003 (ppm(v))	Duplicate Result 0025604-003 (ppm(v))	RPD (%)	Quality C ntrol Limits (%)
EPA 8015mod				
TPH as gasoline	180	160	12	30

	Sample Result 0025604-003 (mg/m3)	Duplicate Result 0025604-003 (mg/m3)	RPD (%)	Quality C ntr l Limits (%)
EPA 8015mod				
TPH as gasoline	956	856	11	30

Approved by: _____ Date: 9/15/00

P.O. # 22976

Foster Wheeler
~~EBASCO SERVICES~~ INCORPORATED
CHAIN OF CUSTODY RECORD

PROJECT Naval Weapons Station - Earle

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	NO. CONTAINERS	LAB ID#	TCL VOA	TCL BNA	TCL PEST./PCB	TAL METALS	CYANIDE	VOCs (TO14)	TPH		REMARKS OR SAMPLE LOCATION	PRESERVATION: ICED	PRESERVATION: SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN
16(A) VD009	9/7/00	12:30		X	1	-001						X	X			AAI RFS# 0025604		
16(A) VD0010	9/7/00	12:35		X	1	-002						X	X					
16(B) VD004	9/7/00	13:30		X	1	-003						X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Shipped via:
(1)	9/8/00		(4)		
Relinquished by: (Signature) (2)	Date / Time	Received by: (Signature)	Received for Laboratory by: (Signature) Felicia Zelaya	Date / Time 9/12/00 1400	Shipped Ticket No.
Relinquished by: (Signature) (3)	Date / Time	Received by: (Signature)	Remarks: Air grab samples of stack emissions		

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	Method Blank
PROJECT #:	Biosleeper Unit 1 & 2	**AAI RFS#**	0030701
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	Method Blank
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	N/A
INITIAL PRESSURE:	1.00 psia	**DATE RECEIVED:**	N/A
FINAL PRESSURE:	1.00 psia	**DATE ANALYZED:**	11/2/2000
PRES. DILUTION :	1.00		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.100	ND<	0.048
74-83-9	Bromomethane	ND<	0.100	ND<	0.026
75-01-04	Vinyl Chloride	ND<	0.100	ND<	0.039
75-00-3	Chloroethane	ND<	0.100	ND<	0.038
75-69-4	Freon 11	ND<	0.100	ND<	0.018
75-35-4	1,1-Dichloroethene	ND<	0.100	ND<	0.025
76-13-1	Freon 113	ND<	0.100	ND<	0.013
75-09-2	Methylene Chloride	ND<	0.100	ND<	0.029
75-35-3	1,1-Dichloroethane	ND<	0.100	ND<	0.025
156-60-5	trans-1,2-Dichloroethene	ND<	0.100	ND<	0.025
156-59-2	cis-1,2-Dichloroethene	ND<	0.100	ND<	0.025
67-66-3	Chloroform	ND<	0.100	ND<	0.020
71-55-6	1,1,1-Trichloroethane	ND<	0.100	ND<	0.018
56-23-5	Carbon Tetrachloride	ND<	0.100	ND<	0.016
71-43-2	Benzene	ND<	0.100	ND<	0.031
107-06-2	1,2-Dichloroethane	ND<	0.100	ND<	0.025
79-01-6	Trichloroethene	ND<	0.100	ND<	0.019
78-87-5	1,2-Dichloropropane	ND<	0.100	ND<	0.022
10061-02-6	trans-1,3-Dichloropropene	ND<	0.100	ND<	0.022
108-88-3	Toluene	ND<	0.100	ND<	0.027
10061-01-5	cis-1,3-Dichloropropene	ND<	0.100	ND<	0.022
79-00-5	1,1-2-Trichloroethane	ND<	0.100	ND<	0.018
127-18-4	Tetrachloroethene	ND<	0.100	ND<	0.015
106-93-4	Ethylene Dibromide	ND<	0.100	ND<	0.013
108-90-7	Chlorobenzene	ND<	0.100	ND<	0.022
100-41-4	Ethylbenzene	ND<	0.100	ND<	0.023
1330-20-7	m,p-Xylene	ND<	0.100	ND<	0.023
95-47-6	o-Xylene	ND<	0.100	ND<	0.023
100-42-5	Styrene	ND<	0.100	ND<	0.023
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.100	ND<	0.015
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.100	ND<	0.020
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.100	ND<	0.020
541-73-1	1,3-Dichlorobenzene	ND<	0.100	ND<	0.017
106-46-7	1,4-Dichlorobenzene	ND<	0.100	ND<	0.017
100-44-7	Chlorotoluene	ND<	0.100	ND<	0.019
95-50-1	1,2-Dichlorobenzene	ND<	0.100	ND<	0.017
67-64-1	Acetone	ND<	0.100	ND<	0.042
78-93-3	2-Butanone	ND<	0.100	ND<	0.034
108-10-1	4-methyl-2-pentanone	ND<	0.100	ND<	0.024
591-78-6	2-Hexanone	ND<	0.100	ND<	0.024

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	111	70-130
Toluene-d8 (SS2)	101	70-130
4- Bromofluorobenzene (SS3)	100	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 A VD0011
PROJECT #:	Biosleeper Unit 1 & 2	**AAI RFS#**	0030701
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0030701-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	**DATE SAMPLED:**	10/30/2000
INITIAL PRESSURE:	14.90 psia	**DATE RECEIVED:**	11/1/2000
FINAL PRESSURE:	17.50 psia	**DATE ANALYZED:**	11/2/2000
PRES. DILUTION :	1.17		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.587	ND<	0.284
74-83-9	Bromomethane	ND<	0.587	ND<	0.151
75-01-04	Vinyl Chloride	ND<	0.587	ND<	0.230
75-00-3	Chloroethane	ND<	0.587	ND<	0.223
75-69-4	Freon 11	ND<	0.587	ND<	0.105
75-35-4	1,1-Dichloroethene	ND<	0.587	ND<	0.148
76-13-1	Freon 113	ND<	0.587	ND<	0.077
75-09-2	Methylene Chloride	ND<	0.587	ND<	0.169
75-35-3	1,1-Dichloroethane	ND<	0.587	ND<	0.145
156-60-5	trans-1,2-Dichloroethene	ND<	0.587	ND<	0.148
156-59-2	cis-1,2-Dichloroethene	ND<	0.587	ND<	0.148
67-66-3	Chloroform	ND<	0.587	ND<	0.120
71-55-6	1,1,1-Trichloroethane	ND<	0.587	ND<	0.108
56-23-5	Carbon Tetrachloride	ND<	0.587	ND<	0.093
71-43-2	Benzene	45	0.587	14	0.184
107-06-2	1,2-Dichloroethane	ND<	0.587	ND<	0.145
79-01-6	Trichloroethene	ND<	0.587	ND<	0.109
78-87-5	1,2-Dichloropropane	ND<	0.587	ND<	0.127
10061-02-6	trans-1,3-Dichloropropene	ND<	0.587	ND<	0.129
108-88-3	Toluene	6.7	0.587	1.8	0.156
10061-01-5	cis-1,3-Dichloropropene	ND<	0.587	ND<	0.129
79-00-5	1,1-2-Trichloroethane	ND<	0.587	ND<	0.108
127-18-4	Tetrachloroethene	ND<	0.587	ND<	0.087
106-93-4	Ethylene Dibromide	ND<	0.587	ND<	0.076
108-90-7	Chlorobenzene	ND<	0.587	ND<	0.128
100-41-4	Ethylbenzene	19	0.587	4.5	0.135
1330-20-7	m,p-Xylene	58	0.587	13	0.135
95-47-6	o-Xylene	13	0.587	3.1	0.135
100-42-5	Styrene	ND<	0.587	ND<	0.138
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.587	ND<	0.086
108-67-8	1,3,5-Trimethyl Benzene	9.4	0.587	1.9	0.120
95-63-6	1,2,4-Trimethyl Benzene	23	0.587	4.8	0.120
541-73-1	1,3-Dichlorobenzene	ND<	0.587	ND<	0.098
106-46-7	1,4-Dichlorobenzene	ND<	0.587	ND<	0.098
100-44-7	Chlorotoluene	ND<	0.587	ND<	0.113
95-50-1	1,2-Dichlorobenzene	ND<	0.587	ND<	0.098
67-64-1	Acetone	ND<	0.587	ND<	0.248
78-93-3	2-Butanone	ND<	0.587	ND<	0.200
108-10-1	4-methyl-2-pentanone	ND<	0.587	ND<	0.144
591-78-6	2-Hexanone	ND<	0.587	ND<	0.143

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	100	70-130
Toluene-d8 (SS2)	100	70-130
4- Bromofluorobenzene (SS3)	108	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 A VD0012
PROJECT #:	Biosleeper Unit 1 & 2	**AAI RFS#**	0030701
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0030701-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	10/30/2000
INITIAL PRESSURE:	14.90 psia	**DATE RECEIVED:**	11/1/2000
FINAL PRESSURE:	17.90 psia	**DATE ANALYZED:**	11/2/2000
PRES. DILUTION :	1.20		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.120	ND<	0.058
74-83-9	Bromomethane	ND<	0.120	ND<	0.031
75-01-04	Vinyl Chloride	ND<	0.120	ND<	0.047
75-00-3	Chloroethane	ND<	0.120	ND<	0.046
75-69-4	Freon 11	ND<	0.120	ND<	0.021
75-35-4	1,1-Dichloroethene	ND<	0.120	ND<	0.030
76-13-1	Freon 113	ND<	0.120	ND<	0.016
75-09-2	Methylene Chloride	ND<	0.120	ND<	0.035
75-35-3	1,1-Dichloroethane	ND<	0.120	ND<	0.030
156-60-5	trans-1,2-Dichloroethene	ND<	0.120	ND<	0.030
156-59-2	cis-1,2-Dichloroethene	ND<	0.120	ND<	0.030
67-66-3	Chloroform	ND<	0.120	ND<	0.025
71-55-6	1,1,1-Trichloroethane	ND<	0.120	ND<	0.022
56-23-5	Carbon Tetrachloride	ND<	0.120	ND<	0.019
71-43-2	Benzene	ND<	0.120	ND<	0.038
107-06-2	1,2-Dichloroethane	ND<	0.120	ND<	0.030
79-01-6	Trichloroethene	ND<	0.120	ND<	0.022
78-87-5	1,2-Dichloropropane	ND<	0.120	ND<	0.026
10061-02-6	trans-1,3-Dichloropropene	ND<	0.120	ND<	0.026
108-88-3	Toluene	ND<	0.120	ND<	0.032
10061-01-5	cis-1,3-Dichloropropene	ND<	0.120	ND<	0.026
79-00-5	1,1-2-Trichloroethane	ND<	0.120	ND<	0.022
127-18-4	Tetrachloroethene	ND<	0.120	ND<	0.018
106-93-4	Ethylene Dibromide	ND<	0.120	ND<	0.016
108-90-7	Chlorobenzene	ND<	0.120	ND<	0.026
100-41-4	Ethylbenzene	0.14	0.120	0.033	0.028
1330-20-7	m,p-Xylene	0.48	0.120	0.11	0.028
95-47-6	o-Xylene	0.14	0.120	0.033	0.028
100-42-5	Styrene	ND<	0.120	ND<	0.028
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.120	ND<	0.018
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.120	ND<	0.024
95-63-6	1,2,4-Trimethyl Benzene	0.38	0.120	0.078	0.024
541-73-1	1,3-Dichlorobenzene	ND<	0.120	ND<	0.020
106-46-7	1,4-Dichlorobenzene	ND<	0.120	ND<	0.020
100-44-7	Chlorotoluene	ND<	0.120	ND<	0.023
95-50-1	1,2-Dichlorobenzene	ND<	0.120	ND<	0.020
67-64-1	Acetone	ND<	0.120	ND<	0.051
78-93-3	2-Butanone	ND<	0.120	ND<	0.041
108-10-1	4-methyl-2-pentanone	ND<	0.120	ND<	0.029
591-78-6	2-Hexanone	ND<	0.120	ND<	0.029

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	121	70-130
Toluene-d8 (SS2)	105	70-130
4- Bromofluorobenzene (SS3)	108	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	CLIENT SAMPLE ID:	16 B VD005
PROJECT #:	Biosleeper Unit 1 & 2	AAI RFS#	0030701
PROJECT NAME:	Naval Weapons St. Earle	AAI ID#:	0030701-003
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	DATE SAMPLED:	10/30/2000
INITIAL PRESSURE:	15.00 psia	DATE RECEIVED:	11/1/2000
FINAL PRESSURE:	17.30 psia	DATE ANALYZED:	11/2/2000
PRES. DILUTION :	1.15		
DILUTION FACTOR:	1	ANALYTICAL METHOD:	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.115	ND<	0.056
74-83-9	Bromomethane	ND<	0.115	ND<	0.030
75-01-04	Vinyl Chloride	ND<	0.115	ND<	0.045
75-00-3	Chloroethane	ND<	0.115	ND<	0.044
75-69-4	Freon 11	ND<	0.115	ND<	0.021
75-35-4	1,1-Dichloroethene	ND<	0.115	ND<	0.029
76-13-1	Freon 113	ND<	0.115	ND<	0.015
75-09-2	Methylene Chloride	ND<	0.115	ND<	0.033
75-35-3	1,1-Dichloroethane	ND<	0.115	ND<	0.029
156-60-5	trans-1,2-Dichloroethene	ND<	0.115	ND<	0.029
156-59-2	cis-1,2-Dichloroethene	ND<	0.115	ND<	0.029
67-66-3	Chloroform	ND<	0.115	ND<	0.024
71-55-6	1,1,1-Trichloroethane	ND<	0.115	ND<	0.021
56-23-5	Carbon Tetrachloride	ND<	0.115	ND<	0.018
71-43-2	Benzene	0.62	0.115	0.20	0.036
107-06-2	1,2-Dichloroethane	ND<	0.115	ND<	0.029
79-01-6	Trichloroethene	ND<	0.115	ND<	0.021
78-87-5	1,2-Dichloropropane	ND<	0.115	ND<	0.025
10061-02-6	trans-1,3-Dichloropropene	ND<	0.115	ND<	0.025
108-88-3	Toluene	ND<	0.115	ND<	0.031
10061-01-5	cis-1,3-Dichloropropene	ND<	0.115	ND<	0.025
79-00-5	1,1-2-Trichloroethane	ND<	0.115	ND<	0.021
127-18-4	Tetrachloroethene	ND<	0.115	ND<	0.017
106-93-4	Ethylene Dibromide	ND<	0.115	ND<	0.015
108-90-7	Chlorobenzene	ND<	0.115	ND<	0.025
100-41-4	Ethylbenzene	1.5	0.115	0.33	0.027
1330-20-7	m,p-Xylene	3.7	0.115	0.86	0.027
95-47-6	o-Xylene	0.88	0.115	0.20	0.027
100-42-5	Styrene	ND<	0.115	ND<	0.027
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.115	ND<	0.017
108-67-8	1,3,5-Trimethyl Benzene	1.7	0.115	0.34	0.023
95-63-6	1,2,4-Trimethyl Benzene	5.3	0.115	1.1	0.023
541-73-1	1,3-Dichlorobenzene	ND<	0.115	ND<	0.019
106-46-7	1,4-Dichlorobenzene	ND<	0.115	ND<	0.019
100-44-7	Chlorotoluene	ND<	0.115	ND<	0.022
95-50-1	1,2-Dichlorobenzene	ND<	0.115	ND<	0.019
67-64-1	Acetone	ND<	0.115	ND<	0.049
78-93-3	2-Butanone	ND<	0.115	ND<	0.039
108-10-1	4-methyl-2-pentanone	ND<	0.115	ND<	0.028
591-78-6	2-Hexanone	ND<	0.115	ND<	0.028

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	104	70-130
Toluene-d8 (SS2)	98	70-130
4- Bromofluorobenzene (SS3)	113	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Company
PROJECT #: Bioslurper Unit 1 & 2
PROJECT NAME: Naval Weapons St. Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.05 Liter
INITIAL PRESSURE: 1.00 psia
FINAL PRESSURE: 1.00 psia
PRES. DILUTION : 1.00
DILUTION FACTOR: 1

CLIENT SAMPLE ID: Method Blank
AAI RFS# 0033903
AAI ID#: Method Blank

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 12/5/2000

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.10	ND<	0.048
74-83-9	Bromomethane	ND<	0.10	ND<	0.026
75-01-04	Vinyl Chloride	ND<	0.10	ND<	0.039
75-00-3	Chloroethane	ND<	0.10	ND<	0.038
75-69-4	Freon 11	ND<	0.10	ND<	0.018
75-35-4	1,1-Dichloroethene	ND<	0.10	ND<	0.025
76-13-1	Freon 113	ND<	0.10	ND<	0.013
75-09-2	Methylene Chloride	ND<	0.10	ND<	0.029
75-35-3	1,1-Dichloroethane	ND<	0.10	ND<	0.025
156-60-5	trans-1,2-Dichloroethene	ND<	0.10	ND<	0.025
156-59-2	cis-1,2-Dichloroethene	ND<	0.10	ND<	0.025
67-66-3	Chloroform	ND<	0.10	ND<	0.020
71-55-6	1,1,1-Trichloroethane	ND<	0.10	ND<	0.018
56-23-5	Carbon Tetrachloride	ND<	0.10	ND<	0.016
71-43-2	Benzene	ND<	0.10	ND<	0.031
107-06-2	1,2-Dichloroethane	ND<	0.10	ND<	0.025
79-01-6	Trichloroethene	ND<	0.10	ND<	0.019
78-87-5	1,2-Dichloropropane	ND<	0.10	ND<	0.022
10061-02-6	trans-1,3-Dichloropropene	ND<	0.10	ND<	0.022
108-88-3	Toluene	ND<	0.10	ND<	0.027
10061-01-5	cis-1,3-Dichloropropene	ND<	0.10	ND<	0.022
79-00-5	1,1-2-Trichloroethane	ND<	0.10	ND<	0.018
127-18-4	Tetrachloroethene	ND<	0.10	ND<	0.015
106-93-4	Ethylene Dibromide	ND<	0.10	ND<	0.013
108-90-7	Chlorobenzene	ND<	0.10	ND<	0.022
100-41-4	Ethylbenzene	ND<	0.10	ND<	0.023
1330-20-7	m,p-Xylene	ND<	0.10	ND<	0.023
95-47-6	o-Xylene	ND<	0.10	ND<	0.023
100-42-5	Styrene	ND<	0.10	ND<	0.023
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.10	ND<	0.015
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.10	ND<	0.020
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.10	ND<	0.020
541-73-1	1,3-Dichlorobenzene	ND<	0.10	ND<	0.017
106-46-7	1,4-Dichlorobenzene	ND<	0.10	ND<	0.017
100-44-7	Chlorotoluene	ND<	0.10	ND<	0.019
95-50-1	1,2-Dichlorobenzene	ND<	0.10	ND<	0.017
67-64-1	Acetone	ND<	0.10	ND<	0.042
78-93-3	2-Butanone	ND<	0.10	ND<	0.034
108-10-1	4-methyl-2-pentanone	ND<	0.10	ND<	0.024
591-78-6	2-Hexanone	ND<	0.10	ND<	0.024

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	104	70-130
Toluene-d8 (SS2)	101	70-130
4- Bromofluorobenzene (SS3)	102	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	CLIENT SAMPLE ID:	16 AVD0013
PROJECT #:	Bioslurper Unit 1 & 2	AAI RFS#	0033903
PROJECT NAME:	Naval Weapons St. Earle	AAI ID#:	0033903-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	DATE SAMPLED:	11/30/2000
INITIAL PRESSURE:	15.30 psia	DATE RECEIVED:	12/4/2000
FINAL PRESSURE:	17.40 psia	DATE ANALYZED:	12/5/2000
PRES. DILUTION :	1.14		
DILUTION FACTOR:	1	ANALYTICAL METHOD:	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.114	ND<	0.055
74-83-9	Bromomethane	ND<	0.114	ND<	0.029
75-01-04	Vinyl Chloride	ND<	0.114	ND<	0.045
75-00-3	Chloroethane	ND<	0.114	ND<	0.043
75-69-4	Freon 11	ND<	0.114	ND<	0.020
75-35-4	1,1-Dichloroethene	ND<	0.114	ND<	0.029
76-13-1	Freon 113	ND<	0.114	ND<	0.015
75-09-2	Methylene Chloride	ND<	0.114	ND<	0.033
75-35-3	1,1-Dichloroethane	ND<	0.114	ND<	0.028
156-60-5	trans-1,2-Dichloroethene	ND<	0.114	ND<	0.029
156-59-2	cis-1,2-Dichloroethene	ND<	0.114	ND<	0.029
67-66-3	Chloroform	ND<	0.114	ND<	0.023
71-55-6	1,1,1-Trichloroethane	ND<	0.114	ND<	0.021
56-23-5	Carbon Tetrachloride	ND<	0.114	ND<	0.018
71-43-2	Benzene	ND<	0.114	ND<	0.036
107-06-2	1,2-Dichloroethane	ND<	0.114	ND<	0.028
79-01-6	Trichloroethene	ND<	0.114	ND<	0.021
78-87-5	1,2-Dichloropropane	ND<	0.114	ND<	0.025
10061-02-6	trans-1,3-Dichloropropene	ND<	0.114	ND<	0.025
108-88-3	Toluene	ND<	0.114	ND<	0.030
10061-01-5	cis-1,3-Dichloropropene	ND<	0.114	ND<	0.025
79-00-5	1,1-2-Trichloroethane	ND<	0.114	ND<	0.021
127-18-4	Tetrachloroethene	ND<	0.114	ND<	0.017
106-93-4	Ethylene Dibromide	ND<	0.114	ND<	0.015
108-90-7	Chlorobenzene	ND<	0.114	ND<	0.025
100-41-4	Ethylbenzene	ND<	0.114	ND<	0.026
1330-20-7	m,p-Xylene	0.12	0.114	0.027	0.026
95-47-6	o-Xylene	ND<	0.114	ND<	0.026
100-42-5	Styrene	ND<	0.114	ND<	0.027
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.114	ND<	0.017
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.114	ND<	0.023
95-63-6	1,2,4-Trimethyl Benzene	0.21	0.114	0.043	0.023
541-73-1	1,3-Dichlorobenzene	ND<	0.114	ND<	0.019
106-46-7	1,4-Dichlorobenzene	ND<	0.114	ND<	0.019
100-44-7	Chlorotoluene	ND<	0.114	ND<	0.022
95-50-1	1,2-Dichlorobenzene	ND<	0.114	ND<	0.019
67-64-1	Acetone	ND<	0.114	ND<	0.048
78-93-3	2-Butanone	ND<	0.114	ND<	0.039
108-10-1	4-methyl-2-pentanone	ND<	0.114	ND<	0.028
591-78-6	2-Hexanone	ND<	0.114	ND<	0.028

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	95	70-130
Toluene-d8 (SS2)	98	70-130
4- Bromofluorobenzene (SS3)	115	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	CLIENT SAMPLE ID:	16 BVD006
PROJECT #:	Biosturper Unit 1 & 2	AAI RFS#	0033903
PROJECT NAME:	Naval Weapons St. Earle	AAI ID#:	0033903-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	DATE SAMPLED:	11/30/2000
INITIAL PRESSURE:	15.40 psia	DATE RECEIVED:	12/4/2000
FINAL PRESSURE:	17.30 psia	DATE ANALYZED:	12/5/2000
PRES. DILUTION :	1.12		
DILUTION FACTOR:	1	ANALYTICAL METHOD:	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.562	ND<	0.272
74-83-9	Bromomethane	ND<	0.562	ND<	0.145
75-01-04	Vinyl Chloride	ND<	0.562	ND<	0.220
75-00-3	Chloroethane	ND<	0.562	ND<	0.213
75-69-4	Freon 11	ND<	0.562	ND<	0.100
75-35-4	1,1-Dichloroethene	ND<	0.562	ND<	0.142
76-13-1	Freon 113	ND<	0.562	ND<	0.073
75-09-2	Methylene Chloride	ND<	0.562	ND<	0.162
75-35-3	1,1-Dichloroethane	ND<	0.562	ND<	0.139
156-60-5	trans-1,2-Dichloroethene	ND<	0.562	ND<	0.142
156-59-2	cis-1,2-Dichloroethene	ND<	0.562	ND<	0.142
67-66-3	Chloroform	ND<	0.562	ND<	0.115
71-55-6	1,1,1-Trichloroethane	ND<	0.562	ND<	0.103
56-23-5	Carbon Tetrachloride	ND<	0.562	ND<	0.089
71-43-2	Benzene	1.6	0.562	0.49	0.176
107-06-2	1,2-Dichloroethane	ND<	0.562	ND<	0.139
79-01-6	Trichloroethene	ND<	0.562	ND<	0.105
78-87-5	1,2-Dichloropropane	ND<	0.562	ND<	0.122
10061-02-6	trans-1,3-Dichloropropene	ND<	0.562	ND<	0.124
108-88-3	Toluene	ND<	0.562	ND<	0.149
10061-01-5	cis-1,3-Dichloropropene	ND<	0.562	ND<	0.124
79-00-5	1,1-2-Trichloroethane	ND<	0.562	ND<	0.103
127-18-4	Tetrachloroethene	ND<	0.562	ND<	0.083
106-93-4	Ethylene Dibromide	ND<	0.562	ND<	0.073
108-90-7	Chlorobenzene	ND<	0.562	ND<	0.122
100-41-4	Ethylbenzene	5.1	0.562	1.2	0.129
1330-20-7	m,p-Xylene	10	0.562	2.4	0.129
95-47-6	o-Xylene	2.2	0.562	0.52	0.129
100-42-5	Styrene	ND<	0.562	ND<	0.132
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.562	ND<	0.082
108-67-8	1,3,5-Trimethyl Benzene	2.6	0.562	0.53	0.114
95-63-6	1,2,4-Trimethyl Benzene	8.9	0.562	1.8	0.114
541-73-1	1,3-Dichlorobenzene	ND<	0.562	ND<	0.093
106-46-7	1,4-Dichlorobenzene	ND<	0.562	ND<	0.093
100-44-7	Chlorotoluene	ND<	0.562	ND<	0.109
95-50-1	1,2-Dichlorobenzene	ND<	0.562	ND<	0.093
67-64-1	Acetone	ND<	0.562	ND<	0.237
78-93-3	2-Butanone	ND<	0.562	ND<	0.191
108-10-1	4-methyl-2-pentanone	ND<	0.562	ND<	0.137
591-78-6	2-Hexanone	ND<	0.562	ND<	0.137

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	87	70-130
Toluene-d8 (SS2)	94	70-130
4- Bromofluorobenzene (SS3)	117	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interference.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Company
PROJECT #: Bioslurper Unit 1 & 2
PROJECT NAME: Naval Weapons St. Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.1 Liter
INITIAL PRESSURE: 1.00 psia
FINAL PRESSURE: 1.00 psia
PRES. DILUTION : 1.00
DILUTION FACTOR: 1

CLIENT SAMPLE ID: Method Blank
AAI RFS# 0103003
AAI ID#: Method Blank

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 1/31/2001

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.050	ND<	0.024
74-83-9	Bromomethane	ND<	0.050	ND<	0.013
75-01-04	Vinyl Chloride	ND<	0.050	ND<	0.020
75-00-3	Chloroethane	ND<	0.050	ND<	0.019
75-69-4	Freon 11	ND<	0.050	ND<	0.009
75-35-4	1,1-Dichloroethene	ND<	0.050	ND<	0.013
76-13-1	Freon 113	ND<	0.050	ND<	0.007
75-09-2	Methylene Chloride	ND<	0.050	ND<	0.014
75-35-3	1,1-Dichloroethane	ND<	0.050	ND<	0.012
156-60-5	trans-1,2-Dichloroethene	ND<	0.050	ND<	0.013
156-59-2	cis-1,2-Dichloroethene	ND<	0.050	ND<	0.013
67-66-3	Chloroform	ND<	0.050	ND<	0.010
71-55-6	1,1,1-Trichloroethane	ND<	0.050	ND<	0.009
56-23-5	Carbon Tetrachloride	ND<	0.050	ND<	0.008
71-43-2	Benzene	ND<	0.050	ND<	0.016
107-06-2	1,2-Dichloroethane	ND<	0.050	ND<	0.012
79-01-6	Trichloroethene	ND<	0.050	ND<	0.009
78-87-5	1,2-Dichloropropane	ND<	0.050	ND<	0.011
10061-02-6	trans-1,3-Dichloropropene	ND<	0.050	ND<	0.011
108-88-3	Toluene	ND<	0.050	ND<	0.013
10061-01-5	cis-1,3-Dichloropropene	ND<	0.050	ND<	0.011
79-00-5	1,1-2-Trichloroethane	ND<	0.050	ND<	0.009
127-18-4	Tetrachloroethene	ND<	0.050	ND<	0.007
106-93-4	Ethylene Dibromide	ND<	0.050	ND<	0.007
108-90-7	Chlorobenzene	ND<	0.050	ND<	0.011
100-41-4	Ethylbenzene	ND<	0.050	ND<	0.012
1330-20-7	m,p-Xylene	ND<	0.050	ND<	0.012
95-47-6	o-Xylene	ND<	0.050	ND<	0.012
100-42-5	Styrene	ND<	0.050	ND<	0.012
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.050	ND<	0.007
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.050	ND<	0.010
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.050	ND<	0.010
541-73-1	1,3-Dichlorobenzene	ND<	0.050	ND<	0.008
106-46-7	1,4-Dichlorobenzene	ND<	0.050	ND<	0.008
100-44-7	Chlorotoluene	ND<	0.050	ND<	0.010
95-50-1	1,2-Dichlorobenzene	ND<	0.050	ND<	0.008
67-64-1	Acetone	ND<	0.050	ND<	0.021
78-93-3	2-Butanone	ND<	0.050	ND<	0.017
108-10-1	4-methyl-2-pentanone	ND<	0.050	ND<	0.012
591-78-6	2-Hexanone	ND<	0.050	ND<	0.012

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	126	70-130
Toluene-d8 (SS2)	111	70-130
4- Bromofluorobenzene (SS3)	107	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Company
PROJECT #: Bioslurper Unit 1 & 2
PROJECT NAME: Naval Weapons St. Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.01 Liter
INITIAL PRESSURE: 1.00 psia
FINAL PRESSURE: 1.00 psia
PRES. DILUTION : 1.00
DILUTION FACTOR: 1

CLIENT SAMPLE ID: Method Blank
AAI RFS# 01C3003
AAI ID#: Method Blank

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 2/1/2001

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.500	ND<	0.242
74-83-9	Bromomethane	ND<	0.500	ND<	0.129
75-01-04	Vinyl Chloride	ND<	0.500	ND<	0.196
75-00-3	Chloroethane	ND<	0.500	ND<	0.190
75-69-4	Freon 11	ND<	0.500	ND<	0.089
75-35-4	1,1-Dichloroethene	ND<	0.500	ND<	0.126
76-13-1	Freon 113	ND<	0.500	ND<	0.065
75-09-2	Methylene Chloride	ND<	0.500	ND<	0.144
75-35-3	1,1-Dichloroethane	ND<	0.500	ND<	0.124
156-60-5	trans-1,2-Dichloroethene	ND<	0.500	ND<	0.126
156-59-2	cis-1,2-Dichloroethene	ND<	0.500	ND<	0.126
67-66-3	Chloroform	ND<	0.500	ND<	0.102
71-55-6	1,1,1-Trichloroethane	ND<	0.500	ND<	0.092
56-23-5	Carbon Tetrachloride	ND<	0.500	ND<	0.080
71-43-2	Benzene	ND<	0.500	ND<	0.157
107-06-2	1,2-Dichloroethane	ND<	0.500	ND<	0.124
79-01-6	Trichloroethene	ND<	0.500	ND<	0.093
78-87-5	1,2-Dichloropropane	ND<	0.500	ND<	0.108
10061-02-6	trans-1,3-Dichloropropene	ND<	0.500	ND<	0.110
108-88-3	Toluene	ND<	0.500	ND<	0.133
10061-01-5	cis-1,3-Dichloropropene	ND<	0.500	ND<	0.110
79-00-5	1,1-2-Trichloroethane	ND<	0.500	ND<	0.092
127-18-4	Tetrachloroethene	ND<	0.500	ND<	0.074
106-93-4	Ethylene Dibromide	ND<	0.500	ND<	0.065
108-90-7	Chlorobenzene	ND<	0.500	ND<	0.109
100-41-4	Ethylbenzene	ND<	0.500	ND<	0.115
1330-20-7	m,p-Xylene	ND<	0.500	ND<	0.115
95-47-6	o-Xylene	ND<	0.500	ND<	0.115
100-42-5	Styrene	ND<	0.500	ND<	0.117
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.500	ND<	0.073
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.500	ND<	0.102
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.500	ND<	0.102
541-73-1	1,3-Dichlorobenzene	ND<	0.500	ND<	0.083
106-46-7	1,4-Dichlorobenzene	ND<	0.500	ND<	0.083
100-44-7	Chlorotoluene	ND<	0.500	ND<	0.097
95-50-1	1,2-Dichlorobenzene	ND<	0.500	ND<	0.083
67-64-1	Acetone	ND<	0.500	ND<	0.211
78-93-3	2-Butanone	ND<	0.500	ND<	0.170
108-10-1	4-methyl-2-pentanone	ND<	0.500	ND<	0.122
591-78-6	2-Hexanone	ND<	0.500	ND<	0.122

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	104	70-130
Toluene-d8 (SS2)	102	70-130
4- Bromofluorobenzene (SS3)	104	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interference.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Company
PROJECT #: Bioslurper Unit 1 & 2
PROJECT NAME: Naval Weapons St. Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.01 Liter
INITIAL PRESSURE: 14.60 psia
FINAL PRESSURE: 18.00 psia
PRES. DILUTION : 1.23
DILUTION FACTOR: 1

CLIENT SAMPLE ID: 16 AVD 0017
AAI RFS# 0103003
AAI ID#: 0103003-001

DATE SAMPLED: 1/29/2001
DATE RECEIVED: 1/30/2001
DATE ANALYZED: 2/1/2001

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.616	ND<	0.299
74-83-9	Bromomethane	ND<	0.616	ND<	0.159
75-01-04	Vinyl Chloride	ND<	0.616	ND<	0.241
75-00-3	Chloroethane	ND<	0.616	ND<	0.234
75-69-4	Freon 11	ND<	0.616	ND<	0.110
75-35-4	1,1-Dichloroethene	ND<	0.616	ND<	0.156
76-13-1	Freon 113	ND<	0.616	ND<	0.080
75-09-2	Methylene Chloride	ND<	0.616	ND<	0.178
75-35-3	1,1-Dichloroethane	ND<	0.616	ND<	0.152
156-60-5	trans-1,2-Dichloroethene	ND<	0.616	ND<	0.156
156-59-2	cis-1,2-Dichloroethene	ND<	0.616	ND<	0.156
67-66-3	Chloroform	ND<	0.616	ND<	0.126
71-55-6	1,1,1-Trichloroethane	ND<	0.616	ND<	0.113
56-23-5	Carbon Tetrachloride	ND<	0.616	ND<	0.098
71-43-2	Benzene	32	0.616	10	0.193
107-06-2	1,2-Dichloroethane	ND<	0.616	ND<	0.152
79-01-6	Trichloroethene	ND<	0.616	ND<	0.115
78-87-5	1,2-Dichloropropane	ND<	0.616	ND<	0.133
10061-02-8	trans-1,3-Dichloropropene	ND<	0.616	ND<	0.136
108-88-3	Toluene	4.1	0.616	1.1	0.164
10061-01-5	cis-1,3-Dichloropropene	ND<	0.616	ND<	0.136
79-00-5	1,1-2-Trichloroethane	ND<	0.616	ND<	0.113
127-18-4	Tetrachloroethene	ND<	0.616	ND<	0.091
106-93-4	Ethylene Dibromide	ND<	0.616	ND<	0.080
108-90-7	Chlorobenzene	ND<	0.616	ND<	0.134
100-41-4	Ethylbenzene	12	0.616	2.8	0.142
1330-20-7	m,p-Xylene	36	0.616	8.2	0.142
95-47-6	o-Xylene	7.8	0.616	1.8	0.142
100-42-5	Styrene	ND<	0.616	ND<	0.145
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.616	ND<	0.090
108-67-8	1,3,5-Trimethyl Benzene	6.7	0.616	1.4	0.125
95-63-6	1,2,4-Trimethyl Benzene	15	0.616	3.1	0.125
541-73-1	1,3-Dichlorobenzene	ND<	0.616	ND<	0.103
106-46-7	1,4-Dichlorobenzene	ND<	0.616	ND<	0.103
100-44-7	Chlorotoluene	ND<	0.616	ND<	0.118
95-50-1	1,2-Dichlorobenzene	ND<	0.616	ND<	0.103
67-64-1	Acetone	ND<	0.616	ND<	0.260
78-93-3	2-Butanone	ND<	0.616	ND<	0.209
108-10-1	4-methyl-2-pentanone	ND<	0.616	ND<	0.151
591-78-6	2-Hexanone	ND<	0.616	ND<	0.151

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	106	70-130
Toluene-d8 (SS2)	102	70-130
4- Bromofluorobenzene (SS3)	105	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interference.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME: Foster Wheeler Company
PROJECT #: Bioslurper Unit 1 & 2
PROJECT NAME: Naval Weapons St. Earle
MATRIX: Air/Canister
SAMPLE VOLUME: 0.1 Liter
INITIAL PRESSURE: 14.60 psia
FINAL PRESSURE: 18.70 psia
PREB. DILUTION : 1.28
DILUTION FACTOR: 1

CLIENT SAMPLE ID: 16 AVD 0018
AAI RFB# 0103003
AAI ID#: 0103003-002

DATE SAMPLED: 1/29/2001
DATE RECEIVED: 1/30/2001
DATE ANALYZED: 1/31/2001

ANALYTICAL METHOD: EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.064	ND<	0.031
74-83-9	Bromomethane	ND<	0.064	ND<	0.016
75-01-04	Vinyl Chloride	ND<	0.064	ND<	0.025
75-00-3	Chloroethane	ND<	0.064	ND<	0.024
75-69-4	Freon 11	ND<	0.064	ND<	0.011
75-35-4	1,1-Dichloroethene	ND<	0.064	ND<	0.016
76-13-1	Freon 113	ND<	0.064	ND<	0.008
75-09-2	Methylene Chloride	ND<	0.064	ND<	0.018
75-35-3	1,1-Dichloroethane	ND<	0.064	ND<	0.016
156-60-5	trans-1,2-Dichloroethene	ND<	0.064	ND<	0.016
156-59-2	cis-1,2-Dichloroethene	ND<	0.064	ND<	0.016
67-66-3	Chloroform	ND<	0.064	ND<	0.013
71-55-6	1,1,1-Trichloroethane	ND<	0.064	ND<	0.012
56-23-5	Carbon Tetrachloride	ND<	0.064	ND<	0.010
71-43-2	Benzene	0.082	0.064	0.026	0.020
107-06-2	1,2-Dichloroethane	ND<	0.064	ND<	0.016
79-01-6	Trichloroethene	ND<	0.064	ND<	0.012
78-87-5	1,2-Dichloropropane	ND<	0.064	ND<	0.014
10061-02-6	trans-1,3-Dichloropropene	ND<	0.064	ND<	0.014
108-88-3	Toluene	ND<	0.064	ND<	0.017
10061-01-5	cis-1,3-Dichloropropene	ND<	0.064	ND<	0.014
79-00-5	1,1-2-Trichloroethane	ND<	0.064	ND<	0.012
127-18-4	Tetrachloroethene	ND<	0.064	ND<	0.009
106-93-4	Ethylene Dibromide	ND<	0.064	ND<	0.008
108-90-7	Chlorobenzene	ND<	0.064	ND<	0.014
100-41-4	Ethylbenzene	0.15	0.064	0.035	0.015
1330-20-7	m,p-Xylene	0.54	0.064	0.12	0.015
95-47-6	o-Xylene	0.15	0.064	0.035	0.015
100-42-5	Styrene	ND<	0.064	ND<	0.015
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.064	ND<	0.009
108-67-8	1,3,5-Trimethyl Benzene	0.15	0.064	0.031	0.013
95-63-6	1,2,4-Trimethyl Benzene	0.50	0.064	0.10	0.013
541-73-1	1,3-Dichlorobenzene	ND<	0.064	ND<	0.011
106-46-7	1,4-Dichlorobenzene	ND<	0.064	ND<	0.011
100-44-7	Chlorotoluene	ND<	0.064	ND<	0.012
95-50-1	1,2-Dichlorobenzene	ND<	0.064	ND<	0.011
67-64-1	Acetone	ND<	0.064	ND<	0.027
78-93-3	2-Butanone	ND<	0.064	ND<	0.022
108-10-1	4-methyl-2-pentanone	ND<	0.064	ND<	0.018
591-78-6	2-Hexanone	ND<	0.064	ND<	0.016

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	120	70-130
Toluene-d8 (SS2)	108	70-130
4- Bromofluorobenzene (SS3)	106	70-130

ND- Not detected
TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 BVD 007
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	C103003
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0103003-003
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.1 Liter	**DATE SAMPLED:**	1/29/2001
INITIAL PRESSURE:	14.90 psia	**DATE RECEIVED:**	1/30/2001
FINAL PRESSURE:	17.30 psia	**DATE ANALYZED:**	1/31-2/1/2001
PRES. DILUTION :	1.16		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.058	ND<	0.028
74-83-9	Bromomethane	ND<	0.058	ND<	0.015
75-01-04	Vinyl Chloride	ND<	0.058	ND<	0.023
75-00-3	Chloroethane	ND<	0.058	ND<	0.022
75-69-4	Freon 11	ND<	0.058	ND<	0.010
75-35-4	1,1-Dichloroethene	ND<	0.058	ND<	0.015
76-13-1	Freon 113	ND<	0.058	ND<	0.008
75-09-2	Methylene Chloride	ND<	0.058	ND<	0.017
75-35-3	1,1-Dichloroethane	ND<	0.058	ND<	0.014
156-60-5	trans-1,2-Dichloroethene	ND<	0.058	ND<	0.015
156-59-2	cis-1,2-Dichloroethene	ND<	0.058	ND<	0.015
67-66-3	Chloroform	ND<	0.058	ND<	0.012
71-55-6	1,1,1-Trichloroethane	ND<	0.058	ND<	0.011
56-23-5	Carbon Tetrachloride	ND<	0.058	ND<	0.009
71-43-2	Benzene	0.91	0.058	0.28	0.018
107-06-2	1,2-Dichloroethane	ND<	0.058	ND<	0.014
79-01-6	Trichloroethene	ND<	0.058	ND<	0.011
78-87-5	1,2-Dichloropropane	ND<	0.058	ND<	0.013
10061-02-6	trans-1,3-Dichloropropene	ND<	0.058	ND<	0.013
108-88-3	Toluene	0.19	0.058	0.049	0.015
10061-01-5	cis-1,3-Dichloropropene	ND<	0.058	ND<	0.013
79-00-5	1,1-2-Trichloroethane	ND<	0.058	ND<	0.011
127-18-4	Tetrachloroethene	ND<	0.058	ND<	0.009
106-93-4	Ethylene Dibromide	ND<	0.058	ND<	0.008
108-90-7	Chlorobenzene	ND<	0.058	ND<	0.013
100-41-4	Ethylbenzene	4.5	0.058	1.0	0.013
1330-20-7	m,p-Xylene	15	0.581	3.4	0.134
95-47-6	o-Xylene	3.0	0.058	0.69	0.013
100-42-5	Styrene	ND<	0.058	ND<	0.014
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.058	ND<	0.008
108-67-8	1,3,5-Trimethyl Benzene	3.4	0.058	0.70	0.012
95-63-6	1,2,4-Trimethyl Benzene	11	0.116	2.3	0.024
541-73-1	1,3-Dichlorobenzene	ND<	0.058	ND<	0.010
106-46-7	1,4-Dichlorobenzene	ND<	0.058	ND<	0.010
100-44-7	Chlorotoluene	ND<	0.058	ND<	0.011
95-50-1	1,2-Dichlorobenzene	ND<	0.058	ND<	0.010
67-64-1	Acetone	ND<	0.058	ND<	0.024
78-93-3	2-Butanone	ND<	0.058	ND<	0.020
108-10-1	4-methyl-2-pentanone	ND<	0.058	ND<	0.014
591-78-6	2-Hexanone	ND<	0.058	ND<	0.014

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	121	70-130
Toluene-d8 (SS2)	104	70-130
4- Bromofluorobenzene (SS3)	123	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by:_____ Date:_____

CHAIN OF CUSTODY RECORD

2300 Lincoln Highway East
1 Oxford Valley Rd., Suite 200
Langhorne, PA. 19047

QUOTE NO.

FEB 15 2001 18:44

02/15/2001 15:27 17147516414

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler Env Co
2300 Lincoln Highway East
ADDRESS: 1 Oxford Valley Rd Suite 200
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Mike Heffron
PHONE: 215 702-4015 FAX: 215 702-4045

PROJECT INFORMATION

PROJECT NAME: Naval Weapons St Earle
PROJECT NO.: Bioslurper Unit #1 & 2
PROJECT MANAGER: Mike H
LOCATION: Colts Neck, NJ
PHONE: 215 702-4015 FAX: 215 702-4045

BILLING INFORMATION

BILL TO: FWENC PO #:
ADDRESS:
CITY: Langhorne STATE: PA ZIP:
ATTENTION: Sonya PHONE: 215 702-4000

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: 72 Hr DAYS *
EDD: Turnaround DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: _____

ANALYSIS

VOCs - TPH

SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. -001	16AVD0017	Air		✓	1-29-01	1300	1	✓									Pre-Carbon
2. -002	16AVD0018	Air		✓	1-29-01	1315	1	✓									Post-
3. -003	16BVD007	Air		✓	1-29-01	1330	1	✓									D/A.
4.																	AAI RFS#
5.																	0103003
6.																	
7.																	
8.																	

← Specify Preservatives
A - HCl B - HNO_3
C - H_2SO_4 D - NaOH
E - ICE F - Other

17147516414

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Rich Goldbeck	1-29-01/1400	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 1/30/01 1100	RECEIVED FOR LAB BY: 3. Leticia Zelaya

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler _____
Comments:

Page 1 of 1 Shipment Complete: Yes _____ No _____

r 9-99 WHITE - COPY FOR RETURN TO CLIENT YELLOW - COPY PINK - SAMPLER COPY

APOLLO ANALYTICS, INC

PAGE. 07

PAGE 07

PHONE (714) 751-3210 FAX (714) 751-6414

3190-A AIRPORT LOOP DRIVE COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0105901

March 12, 2001

Foster Wheeler Company
One Oxford Valley Road, Suite 200
Langhorne, PA 19047

Project Name: Naval Weapons St. Earle
Project Number: Bioslurper Unit 1 & 2

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
February 28, 2001	3	Air/Canister

The sample(s) received were analyzed for volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

Shalini Menon

for Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	Method Blank
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0105901
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	Method Blank
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.1 Liter	**DATE SAMPLED:**	N/A
INITIAL PRESSURE:	1.00 psia	**DATE RECEIVED:**	N/A
FINAL PRESSURE:	1.00 psia	**DATE ANALYZED:**	3/7/2001
PRES. DILUTION :	1.00		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.050	ND<	0.024
74-83-9	Bromomethane	ND<	0.050	ND<	0.013
75-01-04	Vinyl Chloride	ND<	0.050	ND<	0.020
75-00-3	Chloroethane	ND<	0.050	ND<	0.019
75-69-4	Freon 11	ND<	0.050	ND<	0.009
75-35-4	1,1-Dichloroethene	ND<	0.050	ND<	0.013
76-13-1	Freon 113	ND<	0.050	ND<	0.007
75-09-2	Methylene Chloride	ND<	0.050	ND<	0.014
75-35-3	1,1-Dichloroethane	ND<	0.050	ND<	0.012
156-60-5	trans-1,2-Dichloroethene	ND<	0.050	ND<	0.013
156-59-2	cis-1,2-Dichloroethene	ND<	0.050	ND<	0.013
67-66-3	Chloroform	ND<	0.050	ND<	0.010
71-55-6	1,1,1-Trichloroethane	ND<	0.050	ND<	0.009
56-23-5	Carbon Tetrachloride	ND<	0.050	ND<	0.008
71-43-2	Benzene	ND<	0.050	ND<	0.016
107-06-2	1,2-Dichloroethane	ND<	0.050	ND<	0.012
79-01-6	Trichloroethene	ND<	0.050	ND<	0.009
78-87-5	1,2-Dichloropropane	ND<	0.050	ND<	0.011
10061-02-6	trans-1,3-Dichloropropene	ND<	0.050	ND<	0.011
108-88-3	Toluene	ND<	0.050	ND<	0.013
10061-01-5	cis-1,3-Dichloropropene	ND<	0.050	ND<	0.011
79-00-5	1,1-2-Trichloroethane	ND<	0.050	ND<	0.009
127-18-4	Tetrachloroethene	ND<	0.050	ND<	0.007
106-93-4	Ethylene Dibromide	ND<	0.050	ND<	0.007
108-90-7	Chlorobenzene	ND<	0.050	ND<	0.011
100-41-4	Ethylbenzene	ND<	0.050	ND<	0.012
1330-20-7	m,p-Xylene	ND<	0.050	ND<	0.012
95-47-6	o-Xylene	ND<	0.050	ND<	0.012
100-42-5	Styrene	ND<	0.050	ND<	0.012
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.050	ND<	0.007
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.050	ND<	0.010
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.050	ND<	0.010
541-73-1	1,3-Dichlorobenzene	ND<	0.050	ND<	0.008
106-46-7	1,4-Dichlorobenzene	ND<	0.050	ND<	0.008
100-44-7	Chlorotoluene	ND<	0.050	ND<	0.010
95-50-1	1,2-Dichlorobenzene	ND<	0.050	ND<	0.008
67-64-1	Acetone	ND<	0.050	ND<	0.021
78-93-3	2-Butanone	ND<	0.050	ND<	0.017
108-10-1	4-methyl-2-pentanone	ND<	0.050	ND<	0.012
591-78-6	2-Hexanone	ND<	0.050	ND<	0.012

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	101	70-130
Toluene-d8 (SS2)	99	70-130
4- Bromofluorobenzene (SS3)	105	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: SM Date: 3/12/01

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 AVD0019
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0105901
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0105901-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	**DATE SAMPLED:**	2/26/2001
INITIAL PRESSURE:	14.65 psia	**DATE RECEIVED:**	2/28/2001
FINAL PRESSURE:	17.00 psia	**DATE ANALYZED:**	3/7/2001
PRES. DILUTION :	1.16		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.580	ND<	0.281
74-83-9	Bromomethane	ND<	0.580	ND<	0.149
75-01-04	Vinyl Chloride	ND<	0.580	ND<	0.227
75-00-3	Chloroethane	ND<	0.580	ND<	0.220
75-69-4	Freon 11	ND<	0.580	ND<	0.103
75-35-4	1,1-Dichloroethene	ND<	0.580	ND<	0.146
76-13-1	Freon 113	ND<	0.580	ND<	0.076
75-09-2	Methylene Chloride	ND<	0.580	ND<	0.167
75-35-3	1,1-Dichloroethane	ND<	0.580	ND<	0.143
156-60-5	trans-1,2-Dichloroethene	ND<	0.580	ND<	0.146
156-59-2	cis-1,2-Dichloroethene	ND<	0.580	ND<	0.146
67-66-3	Chloroform	ND<	0.580	ND<	0.119
71-55-6	1,1,1-Trichloroethane	ND<	0.580	ND<	0.106
56-23-5	Carbon Tetrachloride	ND<	0.580	ND<	0.092
71-43-2	Benzene	43	0.580	13	0.182
107-06-2	1,2-Dichloroethane	ND<	0.580	ND<	0.143
79-01-6	Trichloroethene	ND<	0.580	ND<	0.108
78-87-5	1,2-Dichloropropane	ND<	0.580	ND<	0.126
10061-02-6	trans-1,3-Dichloropropene	ND<	0.580	ND<	0.128
108-88-3	Toluene	4.3	0.580	1.1	0.154
10061-01-5	cis-1,3-Dichloropropene	ND<	0.580	ND<	0.128
79-00-5	1,1-2-Trichloroethane	ND<	0.580	ND<	0.106
127-18-4	Tetrachloroethene	ND<	0.580	ND<	0.086
106-93-4	Ethylene Dibromide	ND<	0.580	ND<	0.076
108-90-7	Chlorobenzene	ND<	0.580	ND<	0.126
100-41-4	Ethylbenzene	14	0.580	3.2	0.134
1330-20-7	m,p-Xylene	38	0.580	8.7	0.134
95-47-6	o-Xylene	7.7	0.580	1.8	0.134
100-42-5	Styrene	ND<	0.580	ND<	0.136
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.580	ND<	0.085
108-67-8	1,3,5-Trimethyl Benzene	5.2	0.580	1.1	0.118
95-63-6	1,2,4-Trimethyl Benzene	11	0.580	2.3	0.118
541-73-1	1,3-Dichlorobenzene	ND<	0.580	ND<	0.097
106-46-7	1,4-Dichlorobenzene	ND<	0.580	ND<	0.097
100-44-7	Chlorotoluene	ND<	0.580	ND<	0.112
95-50-1	1,2-Dichlorobenzene	ND<	0.580	ND<	0.097
67-64-1	Acetone	ND<	0.580	ND<	0.245
78-93-3	2-Butanone	ND<	0.580	ND<	0.197
108-10-1	4-methyl-2-pentanone	ND<	0.580	ND<	0.142
591-78-6	2-Hexanone	ND<	0.580	ND<	0.142

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	81	70-130
Toluene-d8 (SS2)	97	70-130
4- Bromofluorobenzene (SS3)	111	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: SH Date: 3/12/01

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 AVD0020
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0105901
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0105901-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.1 Liter	**DATE SAMPLED:**	2/26/2001
INITIAL PRESSURE:	14.70 psia	**DATE RECEIVED:**	2/28/2001
FINAL PRESSURE:	17.30 psia	**DATE ANALYZED:**	3/7/2001
PRES. DILUTION :	1.18		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.059	ND<	0.029
74-83-9	Bromomethane	ND<	0.059	ND<	0.015
75-01-04	Vinyl Chloride	ND<	0.059	ND<	0.023
75-00-3	Chloroethane	ND<	0.059	ND<	0.022
75-69-4	Freon 11	ND<	0.059	ND<	0.010
75-35-4	1,1-Dichloroethene	ND<	0.059	ND<	0.015
76-13-1	Freon 113	ND<	0.059	ND<	0.008
75-09-2	Methylene Chloride	ND<	0.059	ND<	0.017
75-35-3	1,1-Dichloroethane	ND<	0.059	ND<	0.015
156-60-5	trans-1,2-Dichloroethene	ND<	0.059	ND<	0.015
156-59-2	cis-1,2-Dichloroethene	ND<	0.059	ND<	0.015
67-66-3	Chloroform	ND<	0.059	ND<	0.012
71-55-6	1,1,1-Trichloroethane	ND<	0.059	ND<	0.011
56-23-5	Carbon Tetrachloride	ND<	0.059	ND<	0.009
71-43-2	Benzene	0.076	0.059	0.024	0.018
107-06-2	1,2-Dichloroethane	ND<	0.059	ND<	0.015
79-01-6	Trichloroethene	ND<	0.059	ND<	0.011
78-87-5	1,2-Dichloropropane	ND<	0.059	ND<	0.013
10061-02-6	trans-1,3-Dichloropropene	ND<	0.059	ND<	0.013
108-88-3	Toluene	ND<	0.059	ND<	0.016
10061-01-5	cis-1,3-Dichloropropene	ND<	0.059	ND<	0.013
79-00-5	1,1-2-Trichloroethane	ND<	0.059	ND<	0.011
127-18-4	Tetrachloroethene	ND<	0.059	ND<	0.009
106-93-4	Ethylene Dibromide	ND<	0.059	ND<	0.008
108-90-7	Chlorobenzene	ND<	0.059	ND<	0.013
100-41-4	Ethylbenzene	0.13	0.059	0.030	0.014
1330-20-7	m,p-Xylene	0.42	0.059	0.10	0.014
95-47-6	o-Xylene	0.12	0.059	0.027	0.014
100-42-5	Styrene	ND<	0.059	ND<	0.014
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.059	ND<	0.009
108-67-8	1,3,5-Trimethyl Benzene	0.088	0.059	0.018	0.012
95-63-6	1,2,4-Trimethyl Benzene	0.31	0.059	0.062	0.012
541-73-1	1,3-Dichlorobenzene	ND<	0.059	ND<	0.010
106-46-7	1,4-Dichlorobenzene	ND<	0.059	ND<	0.010
100-44-7	Chlorotoluene	ND<	0.059	ND<	0.011
95-50-1	1,2-Dichlorobenzene	ND<	0.059	ND<	0.010
67-64-1	Acetone	ND<	0.059	ND<	0.025
78-93-3	2-Butanone	ND<	0.059	ND<	0.020
108-10-1	4-methyl-2-pentanone	ND<	0.059	ND<	0.014
591-78-6	2-Hexanone	ND<	0.059	ND<	0.014

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	107	70-130
Toluene-d8 (SS2)	103	70-130
4- Bromofluorobenzene (SS3)	110	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: S.M Date: 3/12/01

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 BVD008
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0105901
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0105901-003
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	2/26/2001
INITIAL PRESSURE:	14.60 psia	**DATE RECEIVED:**	2/28/2001
FINAL PRESSURE:	17.00 psia	**DATE ANALYZED:**	3/7/2001
PRES. DILUTION :	1.16		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.116	ND<	0.056
74-83-9	Bromomethane	ND<	0.116	ND<	0.030
75-01-04	Vinyl Chloride	ND<	0.116	ND<	0.046
75-00-3	Chloroethane	ND<	0.116	ND<	0.044
75-69-4	Freon 11	ND<	0.116	ND<	0.021
75-35-4	1,1-Dichloroethene	ND<	0.116	ND<	0.029
76-13-1	Freon 113	ND<	0.116	ND<	0.015
75-09-2	Methylene Chloride	ND<	0.116	ND<	0.034
75-35-3	1,1-Dichloroethane	ND<	0.116	ND<	0.029
156-60-5	trans-1,2-Dichloroethene	ND<	0.116	ND<	0.029
156-59-2	cis-1,2-Dichloroethene	ND<	0.116	ND<	0.029
67-66-3	Chloroform	ND<	0.116	ND<	0.024
71-55-6	1,1,1-Trichloroethane	ND<	0.116	ND<	0.021
56-23-5	Carbon Tetrachloride	ND<	0.116	ND<	0.019
71-43-2	Benzene	1.2	0.116	0.36	0.036
107-06-2	1,2-Dichloroethane	ND<	0.116	ND<	0.029
79-01-6	Trichloroethene	ND<	0.116	ND<	0.022
78-87-5	1,2-Dichloropropane	ND<	0.116	ND<	0.025
10061-02-6	trans-1,3-Dichloropropene	ND<	0.116	ND<	0.026
108-88-3	Toluene	0.15	0.116	0.040	0.031
10061-01-5	cis-1,3-Dichloropropene	ND<	0.116	ND<	0.026
79-00-5	1,1-2-Trichloroethane	ND<	0.116	ND<	0.021
127-18-4	Tetrachloroethene	ND<	0.116	ND<	0.017
106-93-4	Ethylene Dibromide	ND<	0.116	ND<	0.015
108-90-7	Chlorobenzene	ND<	0.116	ND<	0.025
100-41-4	Ethylbenzene	2.3	0.116	0.52	0.027
1330-20-7	m,p-Xylene	5.1	0.116	1.2	0.027
95-47-6	o-Xylene	1.1	0.116	0.26	0.027
100-42-5	Styrene	ND<	0.116	ND<	0.027
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.116	ND<	0.017
108-67-8	1,3,5-Trimethyl Benzene	2.0	0.116	0.42	0.024
95-63-6	1,2,4-Trimethyl Benzene	6.2	0.116	1.3	0.024
541-73-1	1,3-Dichlorobenzene	ND<	0.116	ND<	0.019
106-46-7	1,4-Dichlorobenzene	ND<	0.116	ND<	0.019
100-44-7	Chlorotoluene	ND<	0.116	ND<	0.022
95-50-1	1,2-Dichlorobenzene	ND<	0.116	ND<	0.019
67-64-1	Acetone	ND<	0.116	ND<	0.049
78-93-3	2-Butanone	ND<	0.116	ND<	0.040
108-10-1	4-methyl-2-pentanone	ND<	0.116	ND<	0.028
591-78-6	2-Hexanone	ND<	0.116	ND<	0.028

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	103	70-130
Toluene-d8 (SS2)	99	70-130
4- Bromofluorobenzene (SS3)	107	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: SH Date: 3/12/01

FOSTER WHEELER ENVIRONMENTAL CORP.
2300 Lincoln Highway East
1 Oxford Valley Rd., Suite 200
Langhorne, PA. 19047

CHAIN OF CUSTODY RECORD

~~QUOTE NO.~~: AAF RFS# 0105901

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler Env. Co
ADDRESS: 2300 Lincoln Highway E. / Oxford Valley Rd, Suite 200
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Mike Heffron
PHONE: 215 702-4015 FAX: 215 702-4045

PROJECT INFORMATION

PROJECT NAME: Naval Weapons Sta. Earle
PROJECT NO.: Biosurgen Unit #1 + 2
PROJECT MANAGER: Mike Heffron
LOCATION: Colts Neck, N.J.
PHONE: 215 702-4015 FAX: 215 702-4045

BILLING INFORMATION

BILL TO: Fluor Daniel PO #:
ADDRESS: Same
CITY: Langhorne STATE: PA ZIP:
ATTENTION: Sanyn PHONE: 215 702-4000

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: 72 Hr Turnaround DAYS *
EDD: _____ DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☒ NJ REDUCED
- ☐ NJ CLP
- ☐ EDD FORMAT: _____
- ☐ USEPA CLP
- ☐ NYS ASP "B"
- ☐ NYS ASP "A"
- ☐ EDD

ANALYSIS

1 VOC 2 3 4 5 6 7 8 9

PRESERVATIVES / COMMENTS

SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS (← Specify Preservatives: A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other)
1. -001	16AVD0019	Air		✓	2-26-01	1652	1										Pre-Cleaner
2. -002	16AVD0020	Air		✓	2-26-01	1710	1										Post-Cleaner
3. -003	16BVD008	Air		✓	2-27-01	1145	1										Disch. Air
4.																	
5.																	
6.																	
7.																	
8.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	2-27-01 1200	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY:	DATE/TIME: 2/28/01 1200	RECEIVED FOR LAB BY: 3. Leticia Salazar

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ( ) Temp. of Cooler _____
Comments:

Pag 1 of 1 Shipment Complete: Yes No

PHONE (714) 751-3210 FAX (714) 751-6414

3190-A AIRPORT LOOP DRIVE COSTA MESA, CALIFORNIA 92626

AAI RFS #: 0109202

April 12, 2001

Foster Wheeler Company
One Oxford Valley Road, Suite 200
Langhorne, PA 19047

Project Name: Naval Weapons St. Earle
Project Number: Bioslurper Unit 1 & 2

Attention: Mike Heffron

Apollo Analytics Inc., has received the following sample(s):

Date Received	Quantity	Matrix
April 2, 2001	3	Air/Canister

The sample(s) received were analyzed for volatile organics by GC/MS using EPA method TO-14.

The results of these analyses and the quality control are enclosed. If you have any questions please do not hesitate to call (714) 751-3210.

for Leon Levan
Laboratory Manager

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	Method Blank
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0109202
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	Method Blank
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.1 Liter	**DATE SAMPLED:**	N/A
INITIAL PRESSURE:	1.00 psia	**DATE RECEIVED:**	N/A
FINAL PRESSURE:	1.00 psia	**DATE ANALYZED:**	4/9/2001
PRES. DILUTION :	1.00		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.050	ND<	0.024
74-83-9	Bromomethane	ND<	0.050	ND<	0.013
75-01-04	Vinyl Chloride	ND<	0.050	ND<	0.020
75-00-3	Chloroethane	ND<	0.050	ND<	0.019
75-69-4	Freon 11	ND<	0.050	ND<	0.009
75-35-4	1,1-Dichloroethene	ND<	0.050	ND<	0.013
76-13-1	Freon 113	ND<	0.050	ND<	0.007
75-09-2	Methylene Chloride	ND<	0.050	ND<	0.014
75-35-3	1,1-Dichloroethane	ND<	0.050	ND<	0.012
156-60-5	trans-1,2-Dichloroethene	ND<	0.050	ND<	0.013
156-59-2	cis-1,2-Dichloroethene	ND<	0.050	ND<	0.013
67-66-3	Chloroform	ND<	0.050	ND<	0.010
71-55-6	1,1,1-Trichloroethane	ND<	0.050	ND<	0.009
56-23-5	Carbon Tetrachloride	ND<	0.050	ND<	0.008
71-43-2	Benzene	ND<	0.050	ND<	0.016
107-06-2	1,2-Dichloroethane	ND<	0.050	ND<	0.012
79-01-6	Trichloroethene	ND<	0.050	ND<	0.009
78-87-5	1,2-Dichloropropane	ND<	0.050	ND<	0.011
10061-02-6	trans-1,3-Dichloropropene	ND<	0.050	ND<	0.011
108-88-3	Toluene	ND<	0.050	ND<	0.013
10061-01-5	cis-1,3-Dichloropropene	ND<	0.050	ND<	0.011
79-00-5	1,1-2-Trichloroethane	ND<	0.050	ND<	0.009
127-18-4	Tetrachloroethene	ND<	0.050	ND<	0.007
106-93-4	Ethylene Dibromide	ND<	0.050	ND<	0.007
108-90-7	Chlorobenzene	ND<	0.050	ND<	0.011
100-41-4	Ethylbenzene	ND<	0.050	ND<	0.012
1330-20-7	m,p-Xylene	ND<	0.050	ND<	0.012
95-47-6	o-Xylene	ND<	0.050	ND<	0.012
100-42-5	Styrene	ND<	0.050	ND<	0.012
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.050	ND<	0.007
108-67-8	1,3,5-Trimethyl Benzene	ND<	0.050	ND<	0.010
95-63-6	1,2,4-Trimethyl Benzene	ND<	0.050	ND<	0.010
541-73-1	1,3-Dichlorobenzene	ND<	0.050	ND<	0.008
106-46-7	1,4-Dichlorobenzene	ND<	0.050	ND<	0.008
100-44-7	Chlorotoluene	ND<	0.050	ND<	0.010
95-50-1	1,2-Dichlorobenzene	ND<	0.050	ND<	0.008
67-64-1	Acetone	ND<	0.050	ND<	0.021
78-93-3	2-Butanone	ND<	0.050	ND<	0.017
108-10-1	4-methyl-2-pentanone	ND<	0.050	ND<	0.012
591-78-6	2-Hexanone	ND<	0.050	ND<	0.012

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	116	70-130
Toluene-d8 (SS2)	104	70-130
4- Bromofluorobenzene (SS3)	113	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: SM Date: 4/12/01

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 AVD0021
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0109202
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0109202-001
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.01 Liter	**DATE SAMPLED:**	3/30/2001
INITIAL PRESSURE:	14.60 psia	**DATE RECEIVED:**	4/2/2001
FINAL PRESSURE:	17.70 psia	**DATE ANALYZED:**	4/9/2001
PRES. DILUTION :	1.21		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.606	ND<	0.294
74-83-9	Bromomethane	ND<	0.606	ND<	0.156
75-01-04	Vinyl Chloride	ND<	0.606	ND<	0.237
75-00-3	Chloroethane	ND<	0.606	ND<	0.230
75-69-4	Freon 11	ND<	0.606	ND<	0.108
75-35-4	1,1-Dichloroethene	ND<	0.606	ND<	0.153
76-13-1	Freon 113	ND<	0.606	ND<	0.079
75-09-2	Methylene Chloride	ND<	0.606	ND<	0.175
75-35-3	1,1-Dichloroethane	ND<	0.606	ND<	0.150
156-60-5	trans-1,2-Dichloroethene	ND<	0.606	ND<	0.153
156-59-2	cis-1,2-Dichloroethene	ND<	0.606	ND<	0.153
67-66-3	Chloroform	ND<	0.606	ND<	0.124
71-55-6	1,1,1-Trichloroethane	ND<	0.606	ND<	0.111
56-23-5	Carbon Tetrachloride	ND<	0.606	ND<	0.096
71-43-2	Benzene	39	0.606	12	0.190
107-06-2	1,2-Dichloroethane	ND<	0.606	ND<	0.150
79-01-6	Trichloroethene	ND<	0.606	ND<	0.113
78-87-5	1,2-Dichloropropane	ND<	0.606	ND<	0.131
10061-02-6	trans-1,3-Dichloropropene	ND<	0.606	ND<	0.134
108-88-3	Toluene	5.6	0.606	1.5	0.161
10061-01-5	cis-1,3-Dichloropropene	ND<	0.606	ND<	0.134
79-00-5	1,1-2-Trichloroethane	ND<	0.606	ND<	0.111
127-18-4	Tetrachloroethene	ND<	0.606	ND<	0.089
106-93-4	Ethylene Dibromide	ND<	0.606	ND<	0.079
108-90-7	Chlorobenzene	ND<	0.606	ND<	0.132
100-41-4	Ethylbenzene	15	0.606	3.4	0.140
1330-20-7	m,p-Xylene	39	0.606	8.9	0.140
95-47-6	o-Xylene	9.5	0.606	2.2	0.140
100-42-5	Styrene	ND<	0.606	ND<	0.142
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.606	ND<	0.088
108-67-8	1,3,5-Trimethyl Benzene	7.2	0.606	1.5	0.123
95-63-6	1,2,4-Trimethyl Benzene	15	0.606	3.1	0.123
541-73-1	1,3-Dichlorobenzene	ND<	0.606	ND<	0.101
106-46-7	1,4-Dichlorobenzene	ND<	0.606	ND<	0.101
100-44-7	Chlorotoluene	ND<	0.606	ND<	0.117
95-50-1	1,2-Dichlorobenzene	ND<	0.606	ND<	0.101
67-64-1	Acetone	ND<	0.606	ND<	0.256
78-93-3	2-Butanone	ND<	0.606	ND<	0.206
108-10-1	4-methyl-2-pentanone	ND<	0.606	ND<	0.148
591-78-6	2-Hexanone	ND<	0.606	ND<	0.148

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	89	70-130
Toluene-d8 (SS2)	103	70-130
4- Bromofluorobenzene (SS3)	105	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: SH Date: 4/12/01

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 AVD0022
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0109202
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0109202-002
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.1 Liter	**DATE SAMPLED:**	3/30/2001
INITIAL PRESSURE:	14.60 psia	**DATE RECEIVED:**	4/2/2001
FINAL PRESSURE:	17.40 psia	**DATE ANALYZED:**	4/9/2001
PRES. DILUTION :	1.19		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.060	ND<	0.029
74-83-9	Bromomethane	ND<	0.060	ND<	0.015
75-01-04	Vinyl Chloride	ND<	0.060	ND<	0.023
75-00-3	Chloroethane	ND<	0.060	ND<	0.023
75-69-4	Freon 11	ND<	0.060	ND<	0.011
75-35-4	1,1-Dichloroethene	ND<	0.060	ND<	0.015
76-13-1	Freon 113	ND<	0.060	ND<	0.008
75-09-2	Methylene Chloride	ND<	0.060	ND<	0.017
75-35-3	1,1-Dichloroethane	ND<	0.060	ND<	0.015
156-60-5	trans-1,2-Dichloroethene	ND<	0.060	ND<	0.015
156-59-2	cis-1,2-Dichloroethene	ND<	0.060	ND<	0.015
67-66-3	Chloroform	ND<	0.060	ND<	0.012
71-55-6	1,1,1-Trichloroethane	ND<	0.060	ND<	0.011
56-23-5	Carbon Tetrachloride	ND<	0.060	ND<	0.009
71-43-2	Benzene	0.19	0.060	0.060	0.019
107-06-2	1,2-Dichloroethane	ND<	0.060	ND<	0.015
79-01-6	Trichloroethene	ND<	0.060	ND<	0.011
78-87-5	1,2-Dichloropropane	ND<	0.060	ND<	0.013
10061-02-6	trans-1,3-Dichloropropene	ND<	0.060	ND<	0.013
108-88-3	Toluene	0.070	0.060	0.019	0.016
10061-01-5	cis-1,3-Dichloropropene	ND<	0.060	ND<	0.013
79-00-5	1,1-2-Trichloroethane	ND<	0.060	ND<	0.011
127-18-4	Tetrachloroethene	ND<	0.060	ND<	0.009
106-93-4	Ethylene Dibromide	ND<	0.060	ND<	0.008
108-90-7	Chlorobenzene	ND<	0.060	ND<	0.013
100-41-4	Ethylbenzene	0.18	0.060	0.041	0.014
1330-20-7	m,p-Xylene	0.60	0.060	0.14	0.014
95-47-6	o-Xylene	0.15	0.060	0.036	0.014
100-42-5	Styrene	ND<	0.060	ND<	0.014
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.060	ND<	0.009
108-67-8	1,3,5-Trimethyl Benzene	0.18	0.060	0.036	0.012
95-63-6	1,2,4-Trimethyl Benzene	0.48	0.060	0.10	0.012
541-73-1	1,3-Dichlorobenzene	ND<	0.060	ND<	0.010
106-46-7	1,4-Dichlorobenzene	ND<	0.060	ND<	0.010
100-44-7	Chlorotoluene	ND<	0.060	ND<	0.012
95-50-1	1,2-Dichlorobenzene	ND<	0.060	ND<	0.010
67-64-1	Acetone	ND<	0.060	ND<	0.025
78-93-3	2-Butanone	ND<	0.060	ND<	0.020
108-10-1	4-methyl-2-pentanone	ND<	0.060	ND<	0.015
591-78-6	2-Hexanone	ND<	0.060	ND<	0.015

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	112	70-130
Toluene-d8 (SS2)	109	70-130
4- Bromofluorobenzene (SS3)	110	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: SN Date: 4/12/01

VOLATILE ORGANIC ANALYSIS

CLIENT NAME:	Foster Wheeler Company	**CLIENT SAMPLE ID:**	16 BVD008
PROJECT #:	Bioslurper Unit 1 & 2	**AAI RFS#**	0109202
PROJECT NAME:	Naval Weapons St. Earle	**AAI ID#:**	0109202-003
MATRIX:	Air/Canister		
SAMPLE VOLUME:	0.05 Liter	**DATE SAMPLED:**	3/30/2001
INITIAL PRESSURE:	14.00 psia	**DATE RECEIVED:**	4/2/2001
FINAL PRESSURE:	16.80 psia	**DATE ANALYZED:**	4/9/2001
PRES. DILUTION :	1.20		
DILUTION FACTOR:	1	**ANALYTICAL METHOD:**	EPA TO14 (GC/MS)

CAS NUMBER	COMPOUND	CONCENTRATION mg/m3	PQL	ppm(v)	PQL
74-87-3	Chloromethane	ND<	0.120	ND<	0.058
74-83-9	Bromomethane	ND<	0.120	ND<	0.031
75-01-04	Vinyl Chloride	ND<	0.120	ND<	0.047
75-00-3	Chloroethane	ND<	0.120	ND<	0.045
75-69-4	Freon 11	ND<	0.120	ND<	0.021
75-35-4	1,1-Dichloroethene	ND<	0.120	ND<	0.030
76-13-1	Freon 113	ND<	0.120	ND<	0.016
75-09-2	Methylene Chloride	ND<	0.120	ND<	0.035
75-35-3	1,1-Dichloroethane	ND<	0.120	ND<	0.030
156-60-5	trans-1,2-Dichloroethene	ND<	0.120	ND<	0.030
156-59-2	cis-1,2-Dichloroethene	ND<	0.120	ND<	0.030
67-66-3	Chloroform	ND<	0.120	ND<	0.025
71-55-6	1,1,1-Trichloroethane	ND<	0.120	ND<	0.022
56-23-5	Carbon Tetrachloride	ND<	0.120	ND<	0.019
71-43-2	Benzene	2.2	0.120	0.68	0.038
107-06-2	1,2-Dichloroethane	ND<	0.120	ND<	0.030
79-01-6	Trichloroethene	ND<	0.120	ND<	0.022
78-87-5	1,2-Dichloropropane	ND<	0.120	ND<	0.026
10061-02-6	trans-1,3-Dichloropropene	ND<	0.120	ND<	0.026
108-88-3	Toluene	0.26	0.120	0.070	0.032
10061-01-5	cis-1,3-Dichloropropene	ND<	0.120	ND<	0.026
79-00-5	1,1-2-Trichloroethane	ND<	0.120	ND<	0.022
127-18-4	Tetrachloroethene	ND<	0.120	ND<	0.018
106-93-4	Ethylene Dibromide	ND<	0.120	ND<	0.016
108-90-7	Chlorobenzene	ND<	0.120	ND<	0.026
100-41-4	Ethylbenzene	4.0	0.120	0.92	0.028
1330-20-7	m,p-Xylene	10	0.120	2.3	0.028
95-47-6	o-Xylene	2.3	0.120	0.53	0.028
100-42-5	Styrene	ND<	0.120	ND<	0.028
79-34-5	1,1,2,2-Tetrachlorethane	ND<	0.120	ND<	0.017
108-67-8	1,3,5-Trimethyl Benzene	3.5	0.120	0.71	0.024
95-63-6	1,2,4-Trimethyl Benzene	11	0.120	2.1	0.024
541-73-1	1,3-Dichlorobenzene	ND<	0.120	ND<	0.020
106-46-7	1,4-Dichlorobenzene	ND<	0.120	ND<	0.020
100-44-7	Chlorotoluene	ND<	0.120	ND<	0.023
95-50-1	1,2-Dichlorobenzene	ND<	0.120	ND<	0.020
67-64-1	Acetone	ND<	0.120	ND<	0.051
78-93-3	2-Butanone	ND<	0.120	ND<	0.041
108-10-1	4-methyl-2-pentanone	ND<	0.120	ND<	0.029
591-78-6	2-Hexanone	ND<	0.120	ND<	0.029

Surrogate Recovery	% Recovery	
1,2-Dichloroethane-D4 (SS1)	94	70-130
Toluene-d8 (SS2)	102	70-130
4- Bromofluorobenzene (SS3)	100	70-130

ND- Not detected

TR - Trace

*Value outside QC limits due to matrix interfence.

Approved by: GM Date: 4/12/01

CHAIN OF CUSTODY RECORD

1 Oxford Valley Rd., Suite 200
Langhorne, PA. 19047

QUOTE NO.: —

CLIENT INFORMATION

REPORT TO BE SENT TO

COMPANY: FOSTER WHEELER ENV CO
2300 LINCOLN HIGHWAY E
ADDRESS: 1 OXFORD VALLEY RD, Suite 200
CITY: LANGHORNE STATE: PA ZIP: 19047
ATTENTION: MIKE HEFFRON
PHONE: 215 702-4015 FAX: 215 702-4045

PROJECT INFORMATION

PROJECT NAME: NAVAL WEAPONS ST. EARLE
PROJECT NO.: BIOSLURPER UNIT #1-2
PROJECT MANAGER: MIKE HEFFRON
LOCATION: PORTS NECK, NJ.
PHONE: 215 702-4015 FAX: 215 702-4045

BILLING INFORMATION

BILL TO: FWELC PO #:
ADDRESS: SAME
CITY: LANGHORNE STATE: PA ZIP:
ATTENTION: SONYA PHONE: 215 702-4000

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: 72 Hr DAYS *
EDD: TURNAROUND DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☒ NJ REDUCED
- ☐ NJ CLP
- ☐ EDD FORMAT: _____
- ☐ USEPA CLP
- ☐ NYS ASP "B"
- ☐ NYS ASP "A"
- ☐ EDD

ANALYSIS

1 VOC 2 3 4 5 6 7 8 9

PRESERVATIVES / COMMENTS

AAI RFS# ~~CHEMTECH~~ SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS (← Specify Preservatives: A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other)
1. -001	16AVD0021	Air		X	3-30-01	1330	1	✓									Pre-Carbon
2. -002	16AVD0022	Air		X	3-30-01	1345	1	✓									Post Carbon
3. -003	16BVD008	Air		X	3-30-01	1355	1	✓									Disch. Air
4.																	
5.																	
6.																	
7.																	
8.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. RICH GOLDBERG	3-30-01	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 4/2/01 1100	RECEIVED FOR LAB BY: 3. Leticia Zelaya

Conditions of bottles or coolers at receipt: [ ] Compliant [ ] Non-Compliant [ ] Temp. of Cooler _____
Comments:
AAI RFS# 0109202

Page 1 of 1 Shipment Complete: Yes X No

er 9-99 WHITE - [redacted] COPY FOR RETURN TO CLIENT [redacted] YEL[redacted] [redacted] P[redacted] SAM[redacted] COP[redacted]

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

DATE: 04/06/00

PROJECT # L7707 NJ

SAMPLE NUMBER- 18297
DATE SAMPLED- 04/04/00
DATE RECEIVED- 04/05/00
DELIVERED BY- CHEMTECH

SAMPLE ID- 16AEW00W3
TIME SAMPLED- 1510 SAMPLER- CLIENT
TIME RECEIVED- 0950
RECEIVED BY- SP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	04/05/00		JAA	210	mg/l

LABORATORY DIRECTOR Hm

☐ 110 Route 4
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NJDEP Certification No. 12013

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

DATE: 04/06/00

PROJECT # L7707 NJ

SAMPLE NUMBER- 18298
DATE SAMPLED- 04/04/00
DATE RECEIVED- 04/05/00
DELIVERED BY- CHEMTECH

SAMPLE ID- 16AEW00W4
TIME SAMPLED- 1515 SAMPLER- CLIENT
TIME RECEIVED- 0950
RECEIVED BY- SP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	04/05/00		JAA	0.57	mg/l

LABORATORY DIRECTOR MM

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

PROJECT NAME: L8149NJ
DATE: 05/04/00

PROJECT # L8149NJ

SAMPLE NUMBER- 20847
DATE SAMPLED- 04/28/00
DATE RECEIVED- 05/02/00
DELIVERED BY- DHL

SAMPLE ID- 16(A)EW00W5
TIME SAMPLED- 1400 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- SP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	05/03/00		JAA	340	mg/l

LABORATORY DIRECTOR

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

PROJECT NAME: L8149NJ
DATE: 05/04/00

PROJECT # L8149NJ

SAMPLE NUMBER- 20848
DATE SAMPLED- 04/28/00
DATE RECEIVED- 05/02/00
DELIVERED BY- DHL

SAMPLE ID- 16(A)EW00W6
TIME SAMPLED- 1430 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- SP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	05/03/00		JAA	0.68	mg/l

LABORATORY DIRECTOR _____

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

PROJECT NAME: L9419NJ
DATE: 07/26/00

PROJECT # L9419NJ

SAMPLE NUMBER- 29730
DATE SAMPLED- 07/21/00
DATE RECEIVED- 07/21/00
DELIVERED BY- IMPULSE

SAMPLE ID- 16(A)EW00W09
TIME SAMPLED- 1100 SAMPLER- CLIENT
TIME RECEIVED- 1400
RECEIVED BY- SP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	07/26/00		JAA	<1.0	mg/l

LABORATORY DIRECTOR [illegible]

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

PROJECT NAME: L9419NJ
DATE: 07/26/00

PROJECT # L9419NJ

SAMPLE NUMBER- 29731
DATE SAMPLED- 07/21/00
DATE RECEIVED- 07/21/00
DELIVERED BY- IMPULSE

SAMPLE ID- 16(A)EW00W10
TIME SAMPLED- 1100 SAMPLER- CLIENT
TIME RECEIVED- 1400
RECEIVED BY- SP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	07/26/00		JAA	110	mg/l

LABORATORY DIRECTOR [signature]

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

PROJECT NAME: L9419NJ
DATE: 07/26/00

PROJECT # L9419NJ

SAMPLE NUMBER- 29732
DATE SAMPLED- 07/21/00
DATE RECEIVED- 07/21/00
DELIVERED BY- IMPULSE

SAMPLE ID- 16(B)EW00W05
TIME SAMPLED- 1115 SAMPLER- CLIENT
TIME RECEIVED- 1400
RECEIVED BY- SP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	07/26/00		JAA	8.7	mg/l

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-

PROJECT NAME: L9419NJ
DATE: 07/26/00

PROJECT # L9419NJ

SAMPLE NUMBER- 29733
DATE SAMPLED- 07/21/00
DATE RECEIVED- 07/21/00
DELIVERED BY- IMPULSE

SAMPLE ID- 16(B)EW00W06
TIME SAMPLED- 1115 SAMPLER- CLIENT
TIME RECEIVED- 1400
RECEIVED BY- SP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	07/26/00		JAA	<1.0	mg/l

LABORATORY DIRECTOR Um

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CHEMTECH

LABORATORY REPORT

CLIENT: FOSTER WHEELER ENVIRO CORP.

LAB RECEIVING #: L1283

ATTN.: MIKE HEFFRON

DSCP

Analysis Meth.: 418.1

Matrix: Water
Unit: mg/L

Analyzed: 9/15/00
Analyst: JAYSHREE

Lab Sample ID:		L1283-01	L1283-02	L1283-03	L1283-04	
Client Sample ID:	Method Blank	16(B) EW07	16(B) EW08	16(A) EW11	16(A) EW12	**Detection Limit**
COMPOUNDS: **D.F.:**		1	1	1	1	
Petroleum Hydrocarbons	<1.0	18	3.1	310	5.1	1

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CHEMTECH

LABORATORY REPORT

CLIENT: Foster Wheeler Environmental Corp.

ATTN.: MIKE HEFFRON

LAB RECEIVING #: L1961

Analysis Meth.: 418.1

Matrix: Water **Analyzed:** 11/1/00

Unit: mg/L **Analyst:** JAYSHREE

Lab Sample ID:		L1961-01	L1961-02	L1961-03	L1961-04	
Client Sample ID:	Method Blank	16AEW13	16AEW14	16BEW09	16BEW10	Detection Limit
COMPOUNDS: **D.F.:**		1	1	1	1	
Total Petroleum Hydrocarbon	<1.0	610	1.4	210	1.6	1

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CHEMTECH

LABORATORY REPORT

CLIENT: Foster Wheeler Environmental Corp.

LAB RECEIVING #: L2304

ATTN.: MIKE HEFFRON

NAVAL WEAPONS STATIONS EARLE

Analysis Meth.: 418.1

Matrix: Water
Unit: mg/L

Analyzed: 12/4/00
Analyst: JAYSHREE

	Lab Sample ID:		L2304-01	L2304-02	L2304-03	L2304-04	
	Client Sample ID:	Method Blank	16AEW15	16AEW16	16AEW11	16BEW12	**Detection Limit**
COMPOUNDS:	**D.F.:**		1	1	1	1	
Total Petroleum Hydrocarbon		<1.0	400	3.1	220	2.0	1

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CHEMTECH LABORATORY REPORT

CLIENT: Foster Wheeler Environmental Corp.

LAB RECEIVING #: L2648

ATTN.: MIKE HEFFRON

NAVAL WEAPONS STATIONS EARLE

Analysis Meth.: 418.1

Matrix: Water
Unit: mg/L

Analyzed: 1/2/01
Analyst: JAYSHREE

Lab Sample ID:		L2648-01	L2648-02	L2648-03	L2648-04	Detection Limit
Client Sample ID:	Method Blank	16AEW17	16AEW18	16BEW13	16BEW14	
D.F.:		1	1	1	1	
COMPOUNDS:						
Total Petroleum Hydrocarbon	<1.0	1300	2.4	130	2.6	1

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CHEMTECH

LABORATORY REPORT

CLIENT: Foster Wheeler Environmental Corp.

ATTN.: MIKE HEFFRON

NAVAL WEAPONS STATIONS EARLE

LAB RECEIVING #: L3001

Analysis Meth.: 418.1

Matrix: Water
Unit: mg/L

Analyzed: 2/2/01
Analyst: JAYSHREE

Lab Sample ID:		L3001-01	L3001-02	L3001-03	L3001-04	
Client Sample ID:	Method Blank	16AEW19	16AEW20	16AEW15	16AEW16	**Detection**
COMPOUNDS: **D.F.:**		1	1	1	1	**Limit**
Total Petroleum Hydrocarbon	<1.0	210	1.6	75	1.6	1

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CHEMTECH

LABORATORY REPORT

CLIENT: Foster Wheeler Environmental Corp

ATTN.: MIKE HEFFRON

NAVAL WEAPONS STATIONS EARLE

LAB RECEIVING #: L3354

Analysis Meth.: 418 1

Matrix: Water
Unit: mg/L

Analyzed: 3/2/01
Analyst: JAYSHREE

Lab Sample ID:		L3354-09	L3354-10	L3354-11	L3354-12	
Client Sample ID:	Method Blank	16AEW21	16AEW22	16BEW17	16BEW18	Detection
D.F.:		1	1	1	1	Limit
COMPOUNDS:						
Total Petroleum Hydrocarbon	<1 0	160	1.2	67	2.1	1

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NJDEP Certification No. 12013

CHEMTECH

CHAIN OF CUSTODY RECORD

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Fax (201) 567-1333

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Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

CHEMTECH JOB NO. L3354055

CHEMTECH QUOTE NO.

MAR 02 2001 16:04

Mar. 2. 2001 3:52PM

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler Env. Co.

ADDRESS: 2300 Lincoln Highway East / Oxford Valley Rd Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Mike Heffron

PHONE: 215 702-4015 FAX: 215 702-4045

PROJECT INFORMATION

PROJECT NAME: Naval Weapon St Earle

PROJECT NO.: Bioslurper Units

PROJECT MANAGER: Mike Heffron

LOCATION: Colts Neck N.J.

PHONE FAX

BILLING INFORMATION

BILL TO: FWENC PO #: 032744

ADDRESS: Same

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Sonya PHONE: 215 702-4000

DATA TURNAROUND INFORMATION

FAX. _____ DAYS *

HARD COPY: 72 hr DAYS *

EDD: Turnaround DAYS *

* TO BE APPROVED BY CHEMTECH

** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP

☐ RESULTS + QC ☐ NYS ASP "B"

☑ NJ REDUCED ☐ NYS ASP "A"

☐ NJ CLP ☐ EDD

☐ EDD FORMAT: _____

ANALYSIS

TPH

PRESERVATIVES

COMMENTS

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

	CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1	09	16AEW21	AQ		✓	2-26-01	1645	1	✓									Pre-C, 21-1
2.	10	16AEW22	AQ		✓	2-26-01	1648	1	✓									Post-C, 21-1
3.	11	16BEW17	AQ		✓	2-27-01	1135	1	✓									Pre-C, 21-2
4.	12	16BEW18	AQ		✓	2-27-01	1140	1	✓									Post-C, 21-2
5.																		
6.																		
7																		
8.																		

No. 6380

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. Ral Gardecki	2-27-01 1600	1. [signature]
2. [signature]	2/27 1715	2. Sunny Fritz
3.		RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☑ Temp. of Cooler 5.0

Comments:

Custody Seal # 120872

Page 1 of 1 Shipment Complete Yes ✓ No _____

Ver. 6/2000

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

41966

ÆMTECH

LABORATORY REPORT

CLIENT: Foster Wheeler Environmental Corp.

ATTN.: MIKE HEFFRON

PSE&G Morristown

LAB RECEIVING #: L3756

Analysis Meth.: 418 1

Matrix: Water
Unit: mg/L

Analyzed: 4/5/01
Analyst: HETAL

COMPOUNDS:	Lab Sample ID: / Client Sample ID: / D.F.:	Method Blank	L3756-01 16AEW23 1	L3756-02 16AEW24 1	L3756-03 16BEW19 1	L3756-04 16BEW20 1	Detection Limit
Total Petroleum Hydrocarbon		<1.0	180	1.0	360	2.4	1

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Please check one:

CHEMTECH

CHAIN OF CUSTODY RECORD

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CHEMTECH JOB NO. L3

CHEMTECH QUOTE NO.

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: FOSTER WHEELER ENV Co
ADDRESS: 2300 LINCOLN HIGHWAY EAST / OXFORD VALLEY Rd, Suite 200
CITY: LANGHORNE STATE: PA ZIP: 19047
ATTENTION: MIKE HEFFRON
PHONE: 215 702-4015 FAX: 215 702-4045

PROJECT INFORMATION

PROJECT NAME: NAVAL WEAPON ST. EARLE
PROJECT NO. BIOSLURPER UNITS
PROJECT MANAGER MIKE HEFFRON
LOCATION COLTS NECK, N.J
PHONE: 215 702-4015 FAX: 215 702-4045

BILLING INFORMATION

BILL TO: FWENC PO #
ADDRESS: SAME
CITY: LANGHORNE STATE: PA ZIP
ATTENTION: SONYA PHONE: 215 702-4000

DATA TURNAROUND INFORMATION

FAX. _____ DAYS *
HARD COPY: 10 Hr. DAYS *
EDD: TURNAROUND DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ NYS ASP "B"
☒ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: _____

ANALYSIS

TPH

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS (← Specify Preservatives: A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other)
1 01	16AEW23	AQ		✓	3-30-01	1215	1.										#1 Pre-C
2. 02	16AEW24	AQ		✓	3-30-01	1220	1.										#1 Post
3. 03	16BEW19	AQ		✓	3-30-01	1230	1.										#2 Pre-C
4 04	16BEW20	AQ		✓	3-30-01	1235	1.										#2 Post
5.																	
6.																	
7																	
8.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. Rich Gordark	3-30-01 1430	1. Valerie Dunne
2. Valerie Dunne	3/30/01 5:30	2.
3.		3.

RECEIVED FOR LAB BY:

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non-Compliant ☒ Temp. of Cooler 5.0 °C
Comments: Custody Seal # 124909

Page 1 of 1 Shipment Complete: Yes X No

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42908

2001 5:24PM No.8300 P. 1/3 No.8300 P. 2/3