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LETTER TRANSMITTING MARCH 1998 SAMPLING RESULTS FOR BUILDING 200 MAIN BASE NTC ORLANDO FL
5/28/1996
HARDING LAWSON ASSOCIATES

Harding Lawson Associates

May 28, 1998

Document No. 02530.081

Mr. John Mitchell
State of Florida
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: **Building 200, Main Base**
March 1998 Sampling Results
CTO 107, Contract No.: N62467-89-D-0317/107

Dear Mr. Mitchell:

As proposed in the Orlando Partnering Team meeting held on January 21, 1998, ABB Environmental Services, Inc. (presently Harding Lawson Associates [HLA]), sampled monitoring wells MW-2, MW-3, MW-6, and MW-8 at the aforementioned site. The locations of the monitoring wells are shown in the site plan included in Attachment A.

The monitoring wells were sampled on March 19 and 20, 1998 and the groundwater samples were transported to Savannah Laboratories and Environmental Services, Inc., for analysis using U.S. Environmental Protection Agency Methods 602 (volatile organic aromatics plus methyl tert-butyl ether) and 610 (polynuclear aromatic hydrocarbons), 239.2 (total lead), 504 (1,2-ethylene dibromide), and Florida-Petroleum Residual Organics for total recoverable petroleum hydrocarbons (TRPH). Attachment B contains the laboratory analytical report and chain-of-custody record for review.

The laboratory analytical results for the March 19 and 20, 1998, sampling event show all parameters were below laboratory standard detection limits, except for TRPH which was detected in MW-8 at 18 milligrams per liter. The results of the previous sampling as well as the March 1998 sampling are presented in Table 1 in Attachment C.

Per the Florida Department of Environmental Protection request, HLA (formerly ABB-ES) will sample monitoring wells MW-2, MW-3, MW-6, and MW-8 three months from the March 19 and 20, 1998, sampling date and compare the analytical results to the previous sampling event. Based on the results of the future sampling, HLA (formerly ABB-ES) will recommend a no further action or monitoring only plan for Building 200, Main Base.

We believe this to be a cost-effective and prudent coarse of action in light of the property transfer and reuse objectives. Should you have any questions regarding this letter, please contact the undersigned at (407) 895-8845.

Very Truly Yours,
HARDING LAWSON ASSOCIATES

5/27/98

Manuel Alonso, P.G.
Senior Geologist
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Mirna Barq
Engineer

PMW
NTC-B200.LTR

Enclosures

cc: Wayne Hansel, Code 18B7, Southern Division
Nick Ugolini, Code 1843, Southern Division
Lt. Gary Whipple, NTC, Orlando
Mark Zill, NTC, Orlando

ATTACHMENT A

FDEP PETROLEUM OR PETROLEUM PRODUCTS WATER SAMPLING LOG

FLORIDA

DEP Form # 62-770.900(3)
Form Title Petroleum or Petroleum Products Water Sampling Log
Effective Date September 23, 1997

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-2	SAMPLE ID: 200MW-2	DATE: 3/20/98
SITE NAME: NTC Orlando		SITE LOCATION: Building 7174	

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 12.5	DEPTH TO WATER (ft): 4.75	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY =

= (12.5 - 4.75) x 0.16 = 1.24

PURGE METHOD:	PURGING INITIATED AT: 1030	PURGING ENDED AT: 1110	
	PURGE RATE (gpm): 0.155	TOTAL VOLUME PURGED (gal): 6.2	

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
	1	6.45	21.6	200	Light Brown	—	Muddy	
	2	6.37	20	210	↓	—	↓	
	3	6.25	20	200	↓	—	↓	
	4	6.23	20	200	↓	—	↓	
	6	6.23	20	200	↓	—	↓	

SAMPLING DATA

SAMPLED BY / AFFILIATION	ABB-ES	SAMPLER(S) SIGNATURE(S)	Mirna Barg
SAMPLING METHOD(S):	Peristaltic	SAMPLING INITIATED AT: 1110	SAMPLING ENDED AT: 1115

FIELD DECONTAMINATION: Y (N) | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
3	CG	40ml	HCl	—		EPA 601/602
2	AG	1L	—	—	—	EPA 610
2	AG	1L	HCl	—		FL PRO
3	CG	40ml	—	—	—	EPA 504
1	HDP	250ml	HNO_3	—		EPA 239.2

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

FLORIDA

DEP Form # 62-770.900(3)
Form Title Petroleum or Petroleum Products Water Sampling Log
Effective Date September 23, 1997

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-6	SAMPLE ID: 200 MW-6	DATE: 3/20/98
SITE NAME: NTC Orlando	SITE LOCATION: Building 200		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 13.9	DEPTH TO WATER (ft): 4.55	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY =

= (13.9 - 4.55) x 0.16 = 1.49

PURGE METHOD:	PURGING INITIATED AT: 1120	PURGING ENDED AT: 1150
	PURGE RATE (gpm): 0.25	TOTAL VOLUME PURGED (gal): 7.48

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
	1	6.48	19	160	light brown	—	Muddy	
	2	6.33	19	160		—		
	3	6.39	19	160		—		
	4	6.27	19	160		—		
	6	6.27	19	160		—		

SAMPLING DATA

SAMPLED BY / AFFILIATION	ABB-ES	SAMPLER(S) SIGNATURE(S)	Mirna Barq
SAMPLING METHOD(S):	peristaltic	SAMPLING INITIATED AT: 1150	SAMPLING ENDED AT: 1200

FIELD DECONTAMINATION: Y (N) | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
3	CG	40 ml	HCl	—		EPA 601/602
2	AG	1L	—	—	—	EPA 610
2	AG	1L	HCl	—		FL PRO
3	CG	40ml	—	—	—	EPA 504
1	HDP	250ml	HNO3	—		EPA 239.2

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

ATTACHMENT B

FIGURES

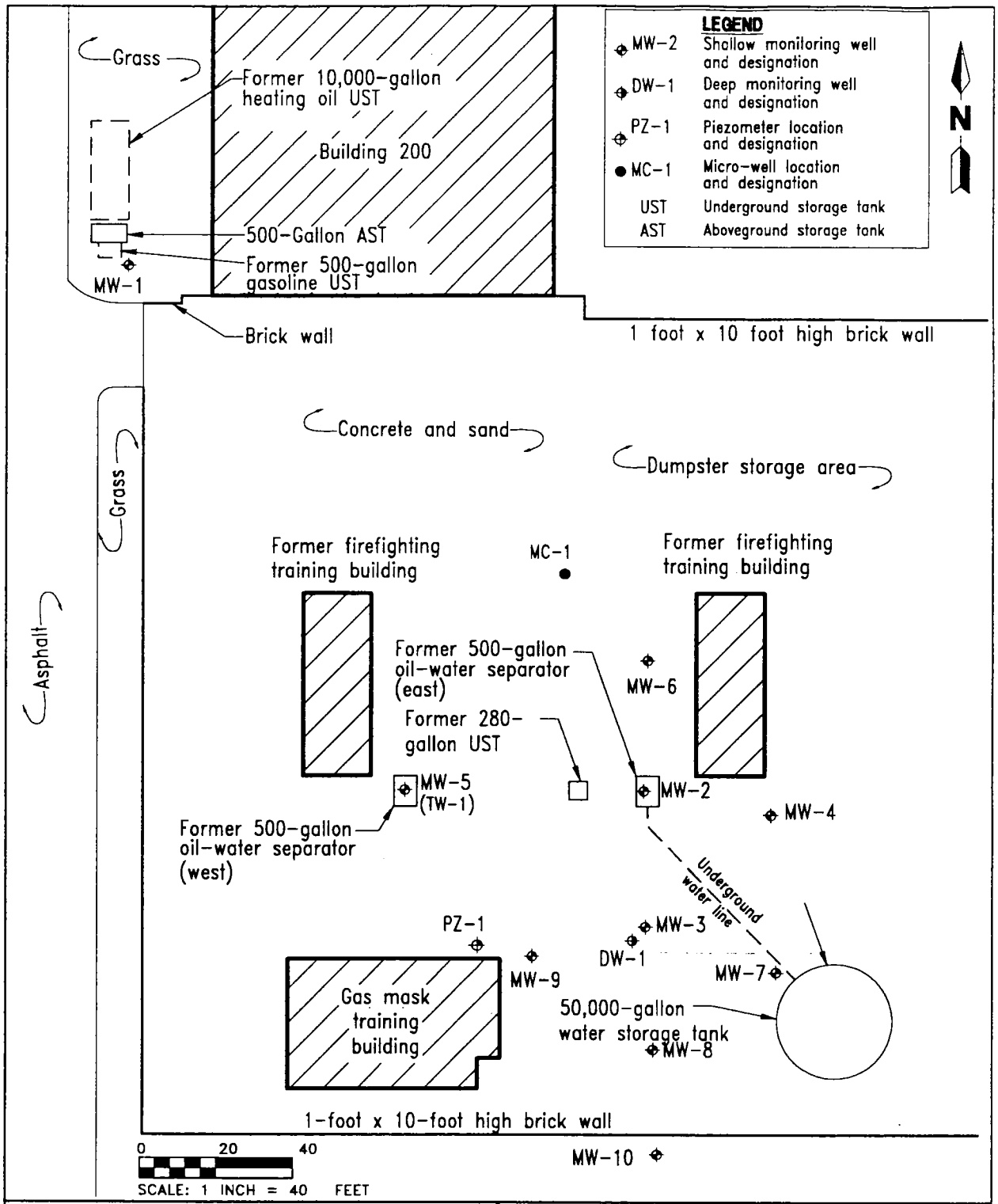

FIGURE 1
MONITORING WELL LOCATION PLAN

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BUILDING 200, MAIN BASE
MARCH 1998 SAMPLING RESULTS

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

ATTACHMENT C

TABLES

Table C-1
Summary of Groundwater Analytical Results

Contamination Assessment Report
Building 200, Main Base
Naval Training Center
Orlando, Florida

Parameter	Chapter 62-770, FAC Target Cleanup Levels (ppb) (Revised)	Monitoring Well/Sample Date						
		TW-1 9/3/96	MW-1 7/18/96	MW-1 10/8/97	MW-2 7/17/96	MW-2 2/3/97	MW-2 10/9/97	MW-2 3/20/98
Benzene	1	<10	<1	<1	<5	<1	<1	<1
Ethylbenzene	30	<10	<1	<1	5	2.6	<1	<1
Toluene	40	<10	<1	<1	<5	<1	<1	<1
Xylenes	20	NA	<1	<2	NA	13.5	<2	<2
MTBE	35	NA	<1	<10	NA	<5	<10	<10
TRPH (mg/ℓ)	5	1.73	0.6	0.43	105	1.4	3.3	1.9
EDB	0.02	NA	<0.02	<0.02	NA	<0.02	<0.02	<0.02
Total lead	15	<3	19.8	0.0051	14.8	<3	0.0099	<0.005
Acenaphthene	20	3	14	<10	28	<10	<10	<2
Acenaphthylene	210	NA	NA	<10	NA	NA	15	12
Anthracene	2,100	<10	5	<10	<200	<10	17	0.4
Benzo(a)anthracene	0.2	NA	NA	NA	NA	NA	NA	<0.4
Benzo(a)pyrene	0.2	NA	NA	<10	NA	NA	<10	<0.4
Benzo(b)fluoranthene	0.2	NA	NA	<10	NA	NA	<10	<0.4
Benzo(g,h,i)perylene	210	NA	NA	<10	NA	NA	<10	<1
Benzo(k)fluoranthene	0.5	NA	NA	NA	NA	NA	NA	<0.4
Chrysene	5	NA	NA	NA	NA	NA	NA	<0.4
Dibenz(a,h)anthracene	0.2	NA	NA	NA	NA	NA	NA	<1
Fluoranthene	280	<10	3	<10	<200	<10	<10	<1
Fluorene	280	3	12	<10	53	<10	17	3.7
Indeno(1,2,3-cd)pyrene	0.2	NA	NA	<10	NA	NA	<10	<1
Naphthalene	20	<10	3	<10	44	<10	<10	2.6
Phenanthrene	210	1	28	<10	160	<10	17	3.7
Pyrene	210	<10	<2	<10	20	<10	<10	<1
1,2-Dichloroethane	3	NA	NA	NA	NA	NA	NA	NA

See notes at end of table.

Table C-1 (Continued)
Summary of Groundwater Analytical Results

Contamination Assessment Report
Building 200, Main Base
Naval Training Center
Orlando, Florida

Parameter	Chapter 62-770, FAC Target Cleanup Levels (ppb) (Revised)	Monitoring Well/Sample Date							
		MW-6 2/3/97	MW-6 10/9/97	MW-6 3/20/98	MW-7 3/13/97	MW-7 10/8/97	MW-8 3/13/97	MW-8 10/8/97	MW-8 3/19/98
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	30	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	40	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes	20	<1	<2	<2	<1	<2	5	<2	<2
MTBE	35	<5	<10	<10	<5	<10	<5	<10	<10
TRPH (mg/ℓ)	5	<1	**11**	0.63	<1	<0.3	<1	3.4	18
EDB	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total lead	15	4	0.0143	<0.005	<3	0.0114	<3	0.005	<0.005
Acenaphthene	20	<5	20	<4	<5	<10	<5	**41**	<4
Acenaphthylene	210	NA	64	4.8	NA	<10	NA	<10	<4
Anthracene	2,100	<5	17	<0.8	<5	<10	<5	23	<0.8
Benzo(a)anthracene	0.2	NA	NA	<0.8	NA	NA	NA	NA	<0.8
Benzo(a)pyrene	0.2	NA	NA	<0.8	NA	<10	NA	<10	<0.8
Benzo(b)fluoranthene	0.2	NA	NA	<0.8	NA	<10	NA	<10	<0.8
Benzo(g,h,i)perylene	210	NA	<10	<2	NA	<10	NA	<10	<2
Benzo(k)fluoranthene	0.5	NA	NA	<0.2	NA	NA	NA	NA	<0.8
Chrysene	5	NA	NA	<0.8	NA	NA	NA	NA	<0.8
Dibenz(a,h)anthracene	0.2	NA	NA	2	NA	NA	NA	NA	<2
Fluoranthene	280	<5	<10	<2	<5	<10	<5	<10	<2
Fluorene	280	<5	<10	3.6	<5	<10	<5	41	<2
Indeno(1,2,3-cd)pyrene	0.2	NA	<10	<2	NA	<10	NA	<10	<2
Naphthalene	20	<5	**49**	<4	<5	<10	24	**55**	6
Phenanthrene	210	6	17	4.8	<5	<10	<5	23	1.2
Pyrene	210	<5	34	<2	<5	<10	<5	<10	<2
1,2-Dichloroethane	3	NA	NA	NA	NA	NA	NA	NA	NA

See notes at end of table.

Table C-1 (Continued)
Summary of Groundwater Analytical Results

Contamination Assessment Report
Building 200, Main Base
Naval Training Center
Orlando, Florida

[1] The Florida Department of Environmental Protection target cleanup level is defined as the best achievable detection limit given conditions of the sample, 10 micrograms per liter maximum.

Notes: All concentrations in micrograms per liter, unless otherwise noted.
Concentrations in bold represent values exceeding Chapter 62-70, FAC, Target Cleanup Levels.

FAC = Florida Administrative Code.
ppb = parts per billion.
< = less than.
NA = not available.
MTBE = methyl tert-butyl ether.
TRPH = total recoverable petroleum hydrocarbons.
mg/ℓ = milligrams per liter.
EDB = ethylene dibromide.