N00204.AR.005008
NAS PENSACOLA
5090.3a

CONTAMINATION ASSESSMENT REPORT ADDENDUM NAVAL AIR STATION RADAR SITE BUILDING 3255 NAS PENSACOLA FL

02/26/1996

NAVAL PUBLIC WORKS CENTER

CONTAMINATION ASSESSMENT REPORT ADDENDUM

NAVAL AIR STATION
RADAR SITE (BLDG. 3255)
NAVAL AIR STATION
PENSACOLA, FLORIDA

PREPARED BY:

NAVY PUBLIC WORKS CENTER
BUILDING 3691, NAS PENSACOLA
PENSACOLA, FL 32508-6500

AUTHOR: GREG CAMPBELL, P.E.

FEBRUARY 1996

PREPARED FOR:

ENVIRONMENTAL DEPARTMENT
NAVAL AIR STATION
PENSACOLA, FLORIDA

DEAN SPENCER, P.E., CODE 00500, ENGINEER-IN-CHARGE

Department of Environmental Protection

Lawton C
Governo

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

February 26, 1996

Mr ver
Co
So sion
Na ties Engineering Command
21 tive
P. 010
No ston, South Carolina 29419-9010

RE cility (Building 3255), Naval Air Station Pensacola
9202973

De ver:

ompleted the technical review of the Contamination Ass port (CAR) Addendum and Monitoring Only Plan (MOP) dat y 1996 (received February 15, 1996), submitted for thi ilding 3255). Based upon my review, the enclosed Mon ly Plan Approval Order was signed by Mr. John M. Rud ector of the Division of Waste Management.

I be of any further assistance with this matter, please ct me at (904) 921-9989.

Sincerely,

John W. Mitchell
Remedial Project Manager

cc: [redacted] AS Pensacola
g Campbell, NAS Pensacola
Moody, FDEP Northwest District

Revi ed by:

2/27/96
Timothy J. hr, P.G.
Professional Geologist Supervisor
Bureau of ste Cleanup

TIMOTHY J. BAHR
LICENSE
NO. 1200
STATE OF
FLORIDA
PROFESSIONAL GEOLOGIST

JJC ESN ESN

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 1
To Greg Campbell	From Glenn Spencer
Co.	Co.
Dept.	Phone #
Fax # 2387	Fax #

"Protect, Conserve and Manage t

PROFESSIONAL REVIEW CERTIFICATION

The Contamination Assessment Report Addendum contained in this report was prepared using sound, hydrogeologic principles and judgement. This assessment is based on the geologic investigation and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned engineer should be notified to evaluate the effects of any additional information on the assessment described in this report. This Contamination Assessment Report Addendum was developed for the diesel fuel leak located South of Building 3255 at the Naval Air Station, Pensacola, Florida and should not be construed to apply to any other site.

G. A. Campbell

G. A. CAMPBELL
Professional Engineer
P.E. No. 38572

2/12/96

Date

CONTAMINATION ASSESSMENT REPORT ADDENDUM

NAVAL AIR STATION
RADAR SITE (BLDG. 3255)
NAVAL AIR STATION
PENSACOLA, FLORIDA

PREPARED BY:

NAVY PUBLIC WORKS CENTER
BUILDING 3691, NAS PENSACOLA
PENSACOLA, FL 32508-6500

AUTHOR: GREG CAMPBELL, P.E.

FEBRUARY 1996

PREPARED FOR:

ENVIRONMENTAL DEPARTMENT
NAVAL AIR STATION
PENSACOLA, FLORIDA

DEAN SPENCER, P.E., CODE 00500, ENGINEER-IN-CHARGE

DEPARTMENT OF THE NAVY
NAVY PUBLIC WORKS CENTER
310 JOHN TOWER ROAD
PENSACOLA, FLORIDA 32508-5303

IN REPLY REFER TO:
5090
Code 911.4
SER 1819
12 Feb 1996

Mr. John W. Mitchell
Remedial Project Manager
Florida Department of Environmental Protection
Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: CONTAMINATION ASSESSMENT ADDENDUM, RADAR FACILITY (BLDG. 3255), NAVAL AIR STATION, PENSACOLA, FL

Dear Mr. Mitchell:

This letter is in reference to your October 23, 1995 letter addressing comments to the Contamination Assessment Report (CAR) and Monitoring Only Plan (MOP) dated September 25, 1995 for the Radar Site (Building 3255) located at the Naval Air Station, Pensacola, Florida. Per your request, this CAR addendum is in response to your comments as summarized below:

COMMENT 1: An additional monitoring well should be installed in the area of excavation of excessively contaminated soil at sample boring location BH-27. Another monitoring well should be installed downgradient of MW-2 (25 feet east-southeast of MW-2 and 25 feet north of MW-6) to adequately delineate the extent of the contamination.

RESPONSE 1: On December 20, 1995 two monitoring wells were installed by W.E.S. Inc. as recommended. A new monitoring well, MW-11, was installed at sample boring location BH-27. Another new monitoring well, MW-12, was installed 25 feet southeast of MW-2 and 25 feet north of MW-6. The location of the newly constructed and existing monitoring wells, the lithologic logs and the well construction diagrams for the two new wells is shown in Appendix A.

COMMENT 2: All wells should be resampled for VOAs and PAHs. Monitoring wells MW-9 and MW-10 should be resampled using a quiescent sampling technique and reanalyzed for lead.

RESPONSE 2: Groundwater samples were collected from monitoring wells MW-1 thru MW-12 on January 10, 1996 and analyzed for VOAs and PAHs. Groundwater samples collected from monitoring wells MW-9 and MW-10 were also analyzed for lead using a quiescent sampling technique. The levels of lead in monitoring wells MW-9 and MW-10 were below detection limit (BDL).

A summary of the VOA and PAH analytical results for monitoring wells MW-1 thru MW-12 is shown in Appendix B. Total VOA and Naphthalene analytical results and monitoring well locations are shown in Figures A and B of Appendix B. No VOAs or PAHs were detected in monitoring wells MW-7 thru MW-12. Benzene was detected in groundwater samples collected from monitoring wells MW-1, MW-2 and MW-5 at concentrations of 2 ppb, 4 ppb and 1 ppb, respectively. The level of benzene detected in monitoring wells MW-1 and MW-2 were above the FDEP regulatory limit of 1 ppb. Total VOAs were detected in groundwater samples collected from monitoring wells MW-1 thru MW-6 at concentrations of 89 ppb, 30 ppb, 23 ppb, 22 ppb, 29 ppb and 7 ppb, respectively. The total VOA level in monitoring well MW-1 exceeded the FDEP regulatory level of 50 ppb.

Total Naphthalenes were detected in groundwater samples from monitoring wells MW-1 and MW-2 at concentrations of 113 ppb and 10 ppb, respectively. The levels of total naphthalenes detected in groundwater monitoring well MW-1 were above the FDEP regulatory limit of 100 ppb. The levels of naphthalene, 1-methylnaphalene and 2-methylnaphalene detected in the groundwater sample collected from monitoring well MW-1 exceeded the FDEP regulatory limit of 10 ppb for each compound. No PAHs were detected in monitoring wells MW-3 thru MW-12.

Monitoring well groundwater measurements and elevations of the January 10, 1996 sampling event and a groundwater direction flow map (Figure C) are shown in Appendix B. The groundwater flow direction is toward the Southeast as shown in Figure C of Appendix B. Laboratory analytical results and chain-of-custody forms are shown in Appendix C.

Based upon the findings of the CAR Addendum, PWC recommends that a Monitoring Only Plan be implemented for the Radar Facility Site (Building 3255) located at NAS Pensacola as follows:

(1) Monitoring wells MW-1, MW-6 and MW-8 be sampled and analyzed for volatile organic aromatic compounds by EPA Method 602 and polynuclear aromatic hydrocarbon compounds by EPA Method 610, quarterly for one year.

(2) Monitoring well MW-1, which had the highest petroleum hydrocarbon concentrations, is considered the source monitoring well. Monitoring MW-8 and MW-6 are considered the upgradient and downgradient monitoring wells, respectively.

If you have any questions concerning this CAR Addendum please contact Mr. Greg Campbell at (904) 452-3180.

Sincerely,

KELLY MCCARTHY
LT, CEC, USN
By direction of the
Commanding Officer

PROFESSIONAL REVIEW CERTIFICATION

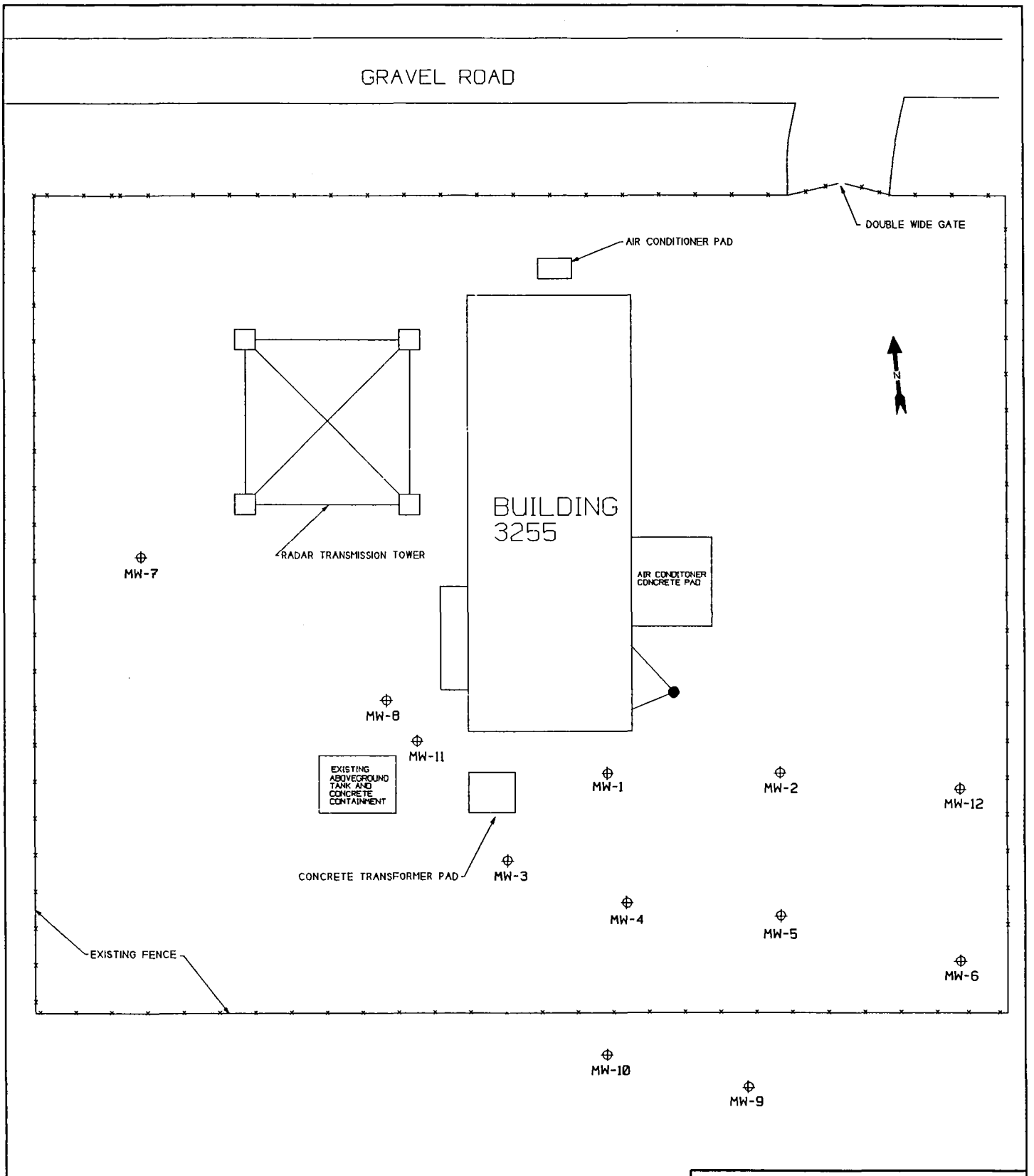
The Contamination Assessment Report Addendum contained in this report was prepared using sound, hydrogeologic principles and judgement. This assessment is based on the geologic investigation and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned engineer should be notified to evaluate the effects of any additional information on the assessment described in this report. This Contamination Assessment Report Addendum was developed for the diesel fuel leak located South of Building 3255 at the Naval Air Station, Pensacola, Florida and should not be construed to apply to any other site.

G. A. Campbell

G. A. CAMPBELL
Professional Engineer
P.E. No. 38572

2/12/96
Date

APPENDIX A



LEGEND

FENCE

MW-1 MONITORING WELL NUMBER

0 20 40
SCALE FEET

NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA

SCALE: 1" = 20'	FIGURE A	DRAWN BY: GAC
DATE: 1/15/96		DWG. NO.: RADMON
		REVISED BY:

MONITORING WELL LOCATIONS

CLIENT: NAS ENVIRONMENTAL DEPARTMENT, NAS PENSACOLA

Sherman Field Radar Facility	LOGGED BY: Patrick J. Brown	SHEET 1 OF 1
Building 3255	Contractor: WES, Inc.	Dr. Method: HSA
NAS, Pensacola FL	Driller: South Florida Testing & Drilling	Dr. Rig: Mobile
	Start Date: 12/20/94	Completed: 12/20/94
MONITOR WELL NO.: MW-11	Start Time: 09:45	Finish Time: 10:30
Contract/Purch.Order No: N65114-95-D-2126	Delivery Order No. 0001	CONTAMINATION DATA

TYPE	NUMB	BLOW	SAMP. INTV. (FT.)	SAMP. RECV. (IN)	DEPTH	DESCRIPTION OF MATERIALS AND CONDITIONS	OVA RESULTS (PPM) CARBON FILTER W/O	WITH	NOTES NET
POST				100%	1	0'-1'; Dark Brown, Fine Sand w/ Humus (organics).	0	NR	0
					2	6"-8" Shell sub-base.			
				100%					
HOLE			Water Table @ approx. 3' bls			1'-3'; Light Brown/Tan, Silty, Fine Sand.	0	NR	0
				100%	4				
					5	3'-8'; Becoming Grey, Silty, Fine Sand.			
				100%					
HSA					6				
				100%	7				
					8	Contact at 8' bls			
				100%		Abrupt Color Change			
HSA					9				
				100%	10	8'-13'; Dark Red/Brown, Silty, Fine Sand, organics?			
					11				
				100%					
					12				
				100%	13				
						End of Boring @ 13' bls			

Sherman Field Radar Facility	LOGGED BY: Patrick J. Brown	SHEET 1 OF 1
Building 3255	Contractor: WES, Inc.	Dr. Method: HSA
NAS, Pensacola FL	Driller: South Florida Testing & Drilling	Dr. Rig: Mobile
	Start Date: 12/20/94	Completed: 12/20/94
MONITOR WELL NO. MW-12	Start Time: 10:45	Finish Time: 11:30
Contract/Purch.Order No. N65114-95-D-2126	Delivery Order No. 0001	CONTAMINATION DATA

TYPE	NUMB	BLOW	SAMP. INTV. (FT.)	SAMP. RECV. (IN)	DEPTH	DESCRIPTION OF MATERIALS AND CONDITIONS	OVA RESULTS (PPM) CARBON FILTER W/O	WITH	NOTES NET
POST HOLE HSA				100%	1	0'-1'; Dark Brown, Fine Sand w/ Humus (organics),	0	NR	0
					2				
				100%					
			Water Table @ approx. 3' bls			1'-3'; Light Brown/Tan, Silty, Fine Sand.	0	NR	0
				100%	4	Becoming Lighter w/ Depth.			
					5				
				100%		3'-8'; Becoming Grey,			
					6	Silty, Fine Sand.			
				100%	7				
					8	Contact at 8' bls			
				100%		Abrupt Color Change			
					9				
				100%	10	8'-13'; Dark Red/Brown, Silty, Fine Sand. organics?			
					11				
				100%					
					12				
				100%	13				
						End of Boring @ 13' bls			

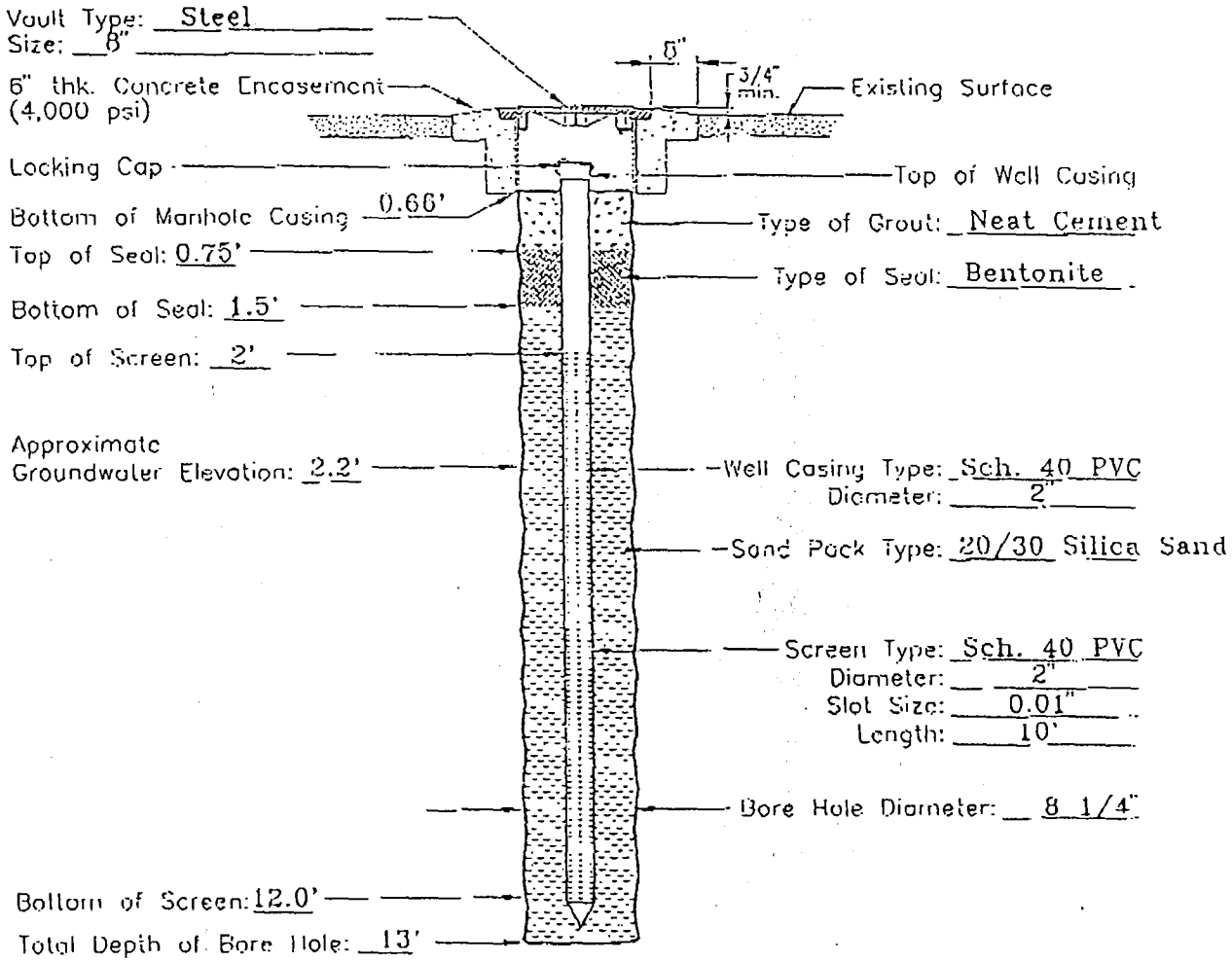
W.E.S., Inc.
Environmental Division
6389 Tower [illegible]
Sarasota, FL [illegible]40-8810
(941) 371-76[illegible]
(941) 378-52[illegible] Fax

MONITOR WELL CONSTRUCTION DETAIL

LOGGED BY: Patrick J. Brown
DRILLING CONTRACTOR: S.F.T. & D.
DRILLER'S NAME: Craig Griffey
WELL NUMBER: MW-12
TOC ELEVATION:

CLIENT: ROICC NAS, Pensacola, Fl.
LOCATION: Sherman Field Radar Facility
JOB NUMBER: N65114-95-D-2126 D.O. 0001
DATE Start: 12/20/95 Finish: 12/20/95
TIME Start: 10:45 Finish: 11:30

COMMENTS: (Lost circulation interval, Water level changes, Hole collapse interval, etc.):



NOTE: DEPTHS SHOWN ARE BELOW LAND SURFACE (B.L.S.)

DRAWING ABOVE IS NOT TO SCALE

CAD FILE @STA3> C:\ACADR13\MW-DETL1.DWG STA3-19951128.1143

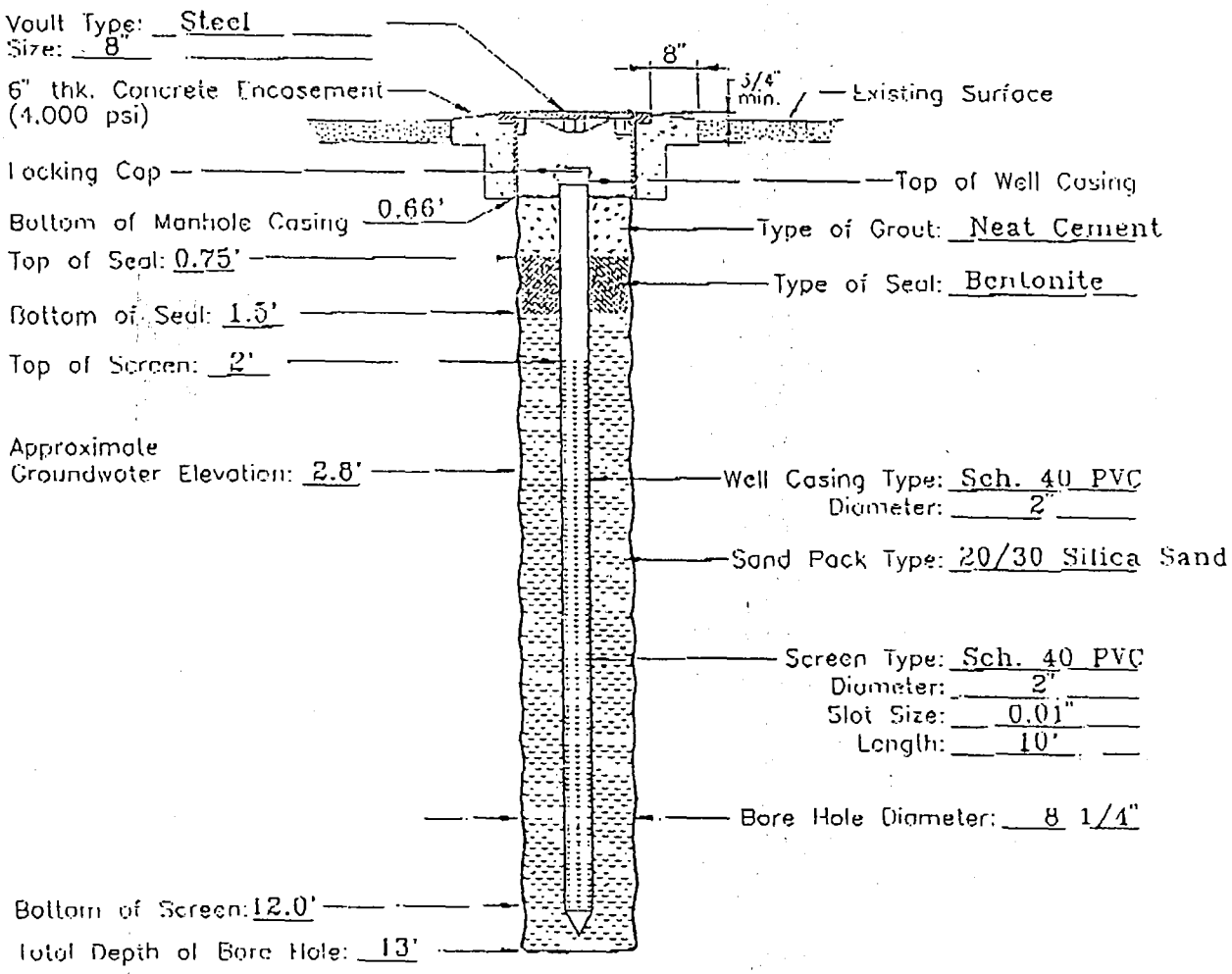
W.E.S., Inc.
Environmental Division
6389 Tower L[illegible]
Sarasota, FL 3[illegible]-8810
(941) 371-76[illegible]
(941) 378-52[illegible]

MONITOR WELL CONSTRUCTION DETAIL

LOGGED BY: Patrick J. Brown
DRILLING CONTRACTOR: S.F.T. & D.
DRILLER'S NAME: Craig Griffey
WELL NUMBER: MW-11
TOC ELEVATION:

CLIENT: ROICC NAS, Pensacola, FL
LOCATION: Sherman Field Radar Facility
JOB NUMBER: N65114-95-D-2126 D.O. 0001
DATE Start: 12/20/95 Finish: 12/20/95
TIME Start: 9:45 Finish: 10:30

COMMENTS: (Lost circulation interval, Water level changes, Hole collapse interval, etc.):



NOTE: DEPTHS SHOWN ARE BELOW LAND SURFACE (B.L.S.)

DRAWING ABOVE IS NOT TO SCALE

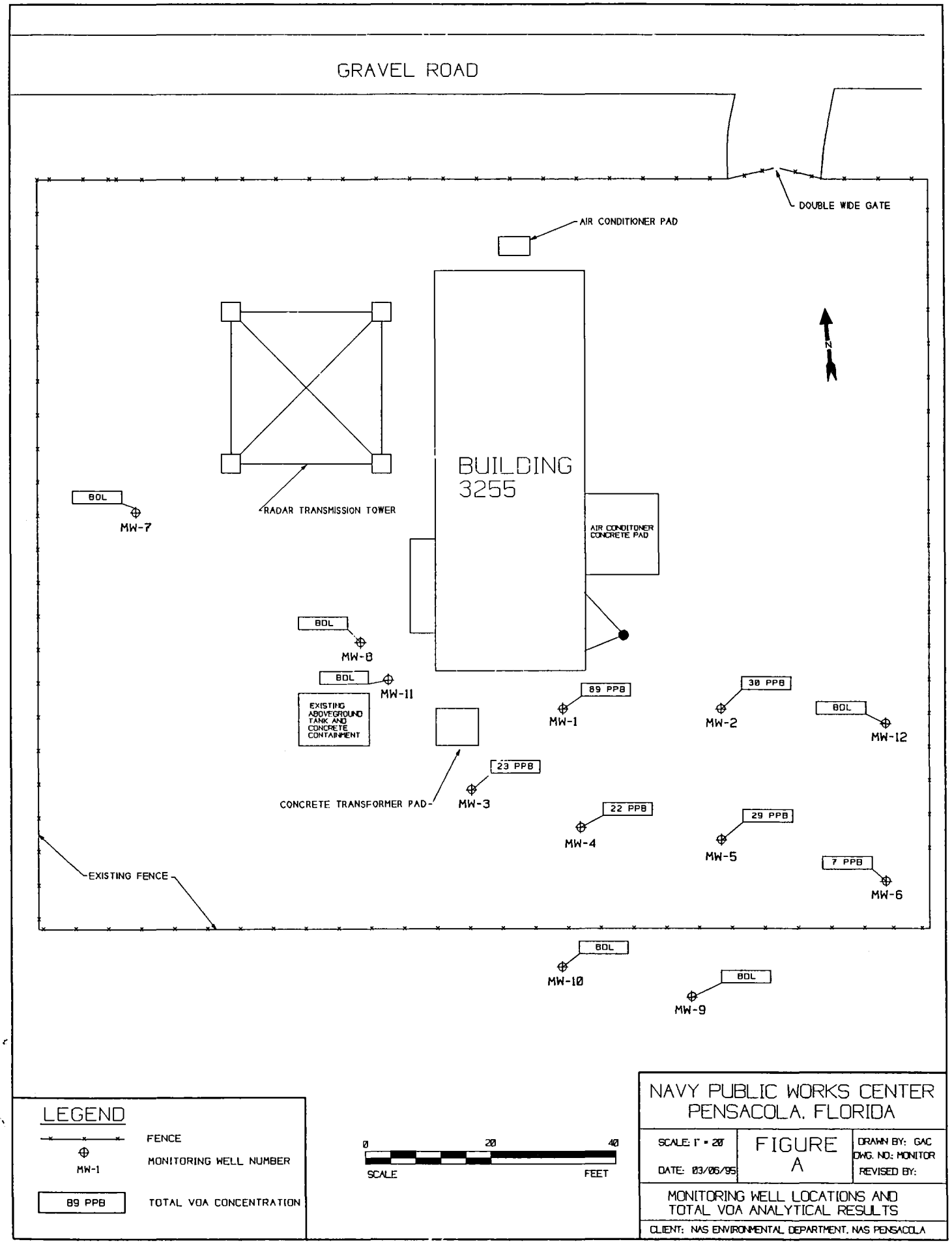
CAD FILE #51A3> C:\ACADR13\MW-DETL1.DWG STA3-19951228.1143

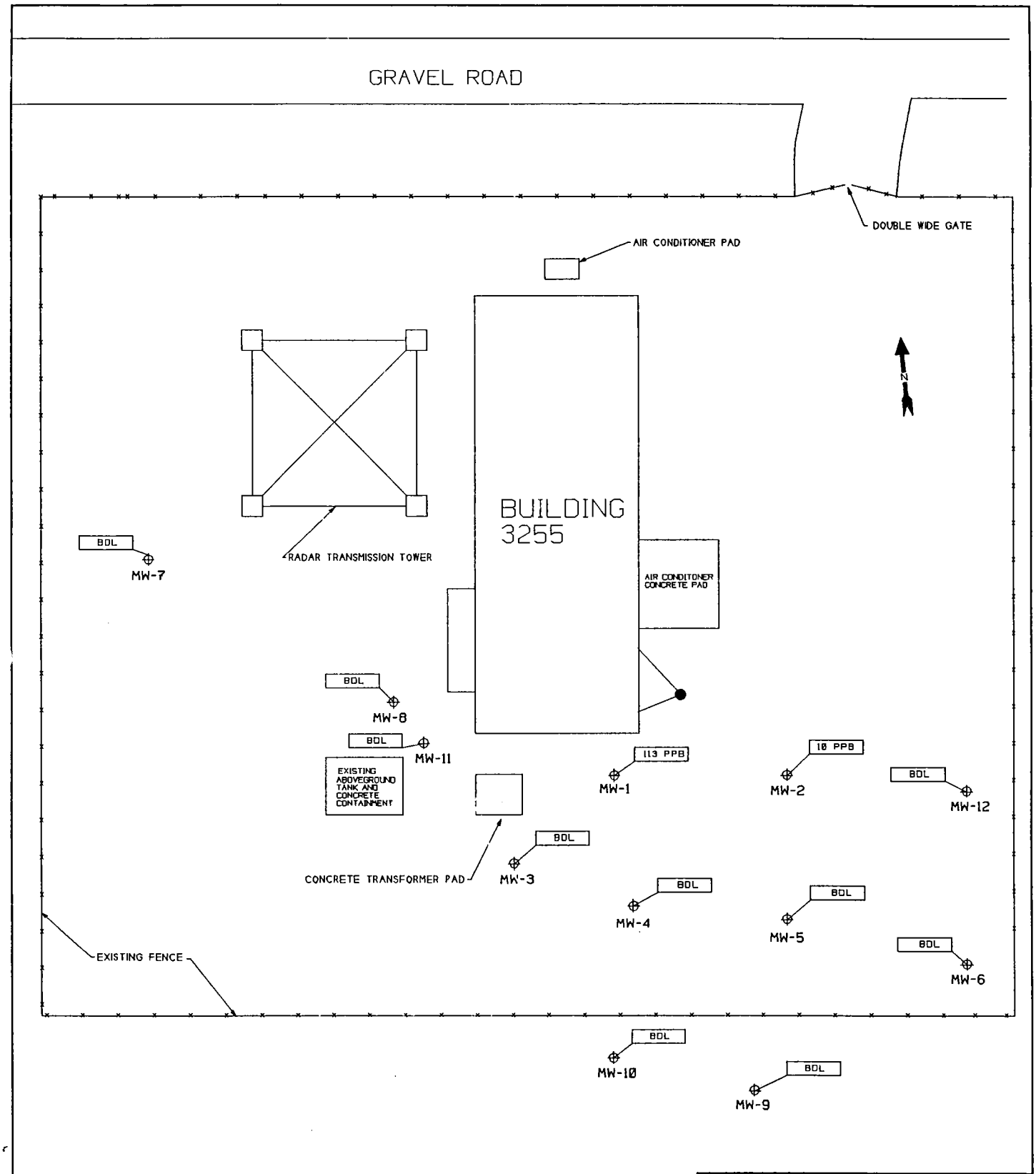
APPENDIX B

SUMMARY OF VOA AND PAH ANALYTICAL RESULTS

PARAMETER	MONITORING WELL NUMBER											
	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10	MW11	MW12
BENZENE	2	4	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ETHYL BENZENE	13	4	2	3	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL
TOLUENE	1	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
XYLENES (TOTAL)	73	22	21	17	28	4	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL VOA	89	30	23	22	29	7	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	27	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1-METHYL-NAPHTHALENE	35	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-METHYL-NAPHTHALENE	51	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL NAPHTHALENE	113	10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NOTES: BDL = BELOW DETECTION LIMIT
RESULTS ARE IN PARTS PER BILLION (PPB) UNLESS OTHERWISE NOTED.


GRAVEL ROAD
DOUBLE WIDE GATE
AIR CONDITIONER PAD
BUILDING 3255
AIR CONDITONER CONCRETE PAD
RADAR TRANSMISSION TOWER
N
BDL
MW-7
BDL
MW-8
BDL
MW-11
EXISTING ABOVEGROUND TANK AND CONCRETE CONTAINMENT
89 PPB
MW-1
30 PPB
MW-2
BDL
MW-12
23 PPB
MW-3
CONCRETE TRANSFORMER PAD
22 PPB
MW-4
29 PPB
MW-5
7 PPB
MW-6
EXISTING FENCE
BDL
MW-10
BDL
MW-9
LEGEND
FENCE
MW-1
MONITORING WELL NUMBER
89 PPB
TOTAL VOA CONCENTRATION
0
20
40
SCALE
FEET
NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA
SCALE: 1" = 20'
DATE: 03/06/95
FIGURE A
DRAWN BY: GAC
DWG. NO: MONITOR
REVISED BY:
MONITORING WELL LOCATIONS AND TOTAL VOA ANALYTICAL RESULTS
CLIENT: NAS ENVIRONMENTAL DEPARTMENT, NAS PENSACOLA



LEGEND

—×—×—×—	FENCE
⊕ MW-1	MONITORING WELL NUMBER
89 PPB	TOTAL NAPHTHALENE CONCENTRATION

0 20 40
SCALE FEET

NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA

SCALE: 1" = 20'	FIGURE B	DRAWN BY: GAC
DATE: 03/06/95		DWG. NO: MONITOR
		REVISED BY:

MONITORING WELL LOCATIONS AND TOTAL NAPHTHALENE ANALYTICAL RESULTS

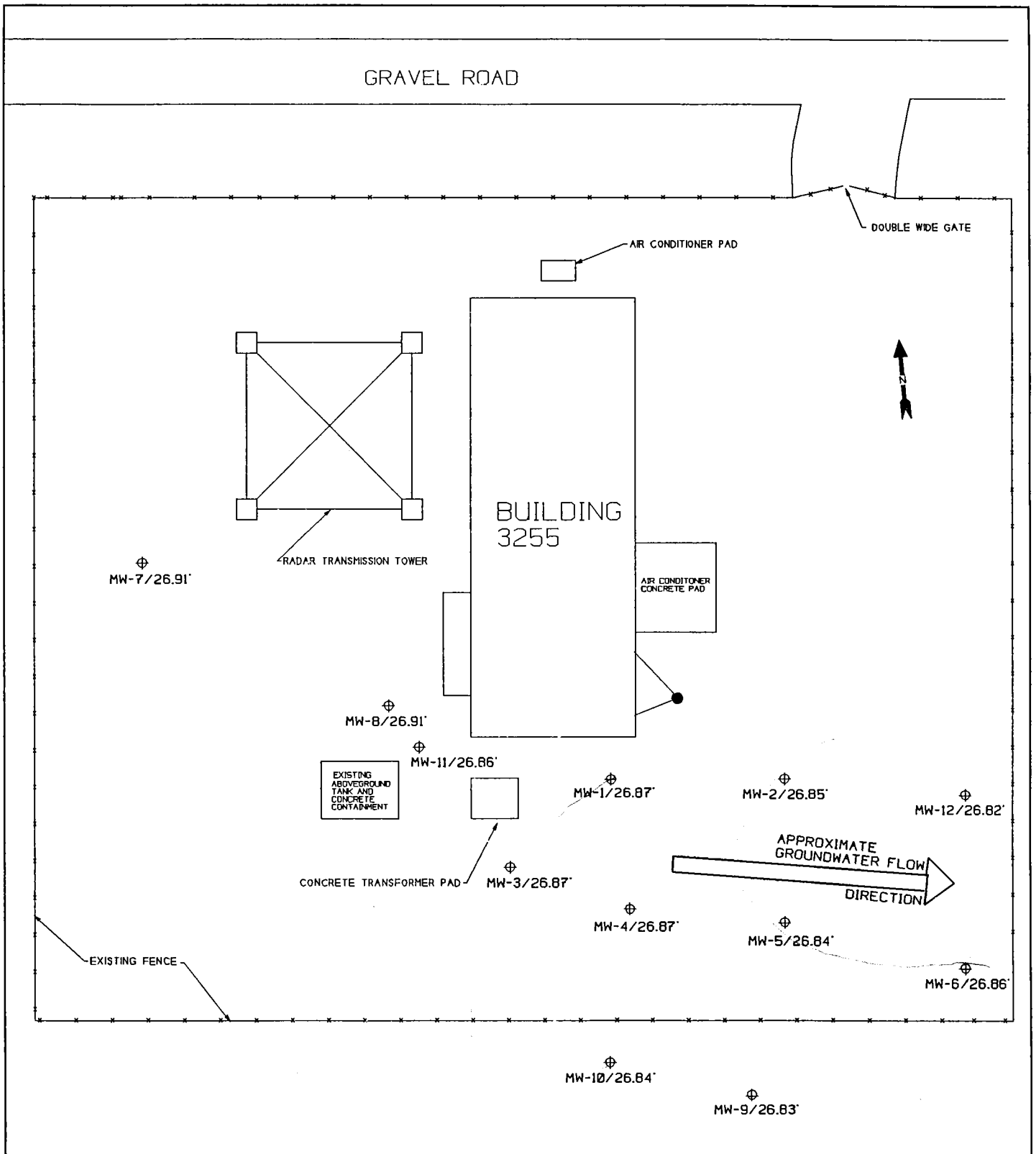
CLIENT: NAS ENVIRONMENTAL DEPARTMENT, NAS PENSACOLA

TOP OF CASING AND GROUNDWATER ELEVATIONS
FOR JANUARY 10, 1996 SAMPLING EVENT

WELL NUMBER	TOC (FT. M.S.L.)	DTW (FT)	GROUNDWATER ELEVATION (FT. M.S.L.)
MW-1	29.38	2.51	26.87
MW-2	28.90	2.05	26.85
MW-3	29.13	2.26	26.87
MW-4	28.89	2.02	26.87
MW-5	28.89	2.05	26.84
MW-6	28.21	1.40	26.86
MW-7	29.20	2.29	26.91
MW-8	29.18	2.27	26.91
MW-9	28.39	1.56	26.83
MW-10	28.62	1.78	26.84
MW-11	29.36	2.50	26.86
MW-12	28.63	1.81	26.82

NOTES: TOC = TOP OF CASING
DTW = DEPTH TO WATER

Assumed elevation of Southeast corner of concrete transformer slab to be 30.00 ft. M.S.C.



LEGEND

FENCE

MW-1/2.65' — MONITORING WELL NUMBER/ GROUNDWATER ELEVATION

GROUNDWATER FLOW DIRECTION

0 20 40
SCALE FEET

NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA

SCALE: 1" = 20'	FIGURE C	DRAWN BY: GAC
DATE: 1/15/96		DWG. NO.: RADMON
		REVISED BY:

GROUNDWATER FLOW DIRECTION MAP

CLIENT: NAS ENVIRONMENTAL DEPARTMENT, NAS PENSACOLA

APPENDIX C

Navy Public Works Center
Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508
Phone (904) 452-4728/3642
Autovon 922-4728/3642

Requester: NPWC Environmental
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Laboratory Report

Total Volatile Aromatics by Method 8260

Report Number: 9601046 B
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60126	2- 60127	3- 60128	4- 60129
Sample Name	Requester	MW-5	MW-2	MW-1	MW-4
Collector Name		A.M.C.	A.M.C.	A.M.C.	A.M.C.
Date/Time	Comp start				
Collected	Comp stop				
(Military)	Grab	10 Jan 96 @ 1510	10 Jan 96 @ 1535	10 Jan 96 @ 1545	10 Jan 96 @ 1555
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab
Analyst		J. Moore	J. Moore	J. Moore	J. Moore
Date of Analysis		13 Jan 96	13 Jan 96	14 Jan 96	14 Jan 96
Sample Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 60126	units	Limit	2- 60127	units	Limit	3- 60128	units	Limit	4- 60129	units	Limit
Benzene	EPA 8260	1	ug/l	1	4	ug/l	1	2	ug/l	1	BDL	ug/l	1
Ethylbenzene	EPA 8260	BDL	ug/l	1	4	ug/l	1	13	ug/l	1	3	ug/l	1
Toluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	1	ug/l	1	2	ug/l	1
Xylenes (Total)	EPA 8260	28	ug/l	2	22	ug/l	2	73	ug/l	2	17	ug/l	2
Methyl-tert-butyl ether (MTBE)	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Total VOA	EPA 8260	29	ug/l	1	30	ug/l	1	89	ug/l	1	22	ug/l	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	76-114	98	97	94	96
Toluene-d8	88-110	100	102	101	100
Bromoflourobenzene	86-115	93	96	96	92

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director

Date/Time: 25-Jan-96 @ 13:25
Report Generated

PWC 5090/14

End of Report

for Jerry Dees

Navy Public Works Center
Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508
Phone (904) 452-4728/3642
Autovon 922-4728/3642

Requester: NPWC Environmental
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Laboratory Report

Total Volatile Aromatics by Method 8260

Report Number: 9601046 A
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60122			2- 60123			3- 60124			4- 60125		
Sample Name	Requester	MW-10			MW-9			MW-7			MW-8		
Collector Name		A.M.C.			A.M.C.			A.M.C.			A.M.C.		
Date/Time	Comp start												
Collected	Comp stop												
(Military)	Grab	10 Jan 96 @ 1020			10 Jan 96 @ 1050			10 Jan 96 @ 1421			10 Jan 96 @ 1615		
Sample Type	Comp/Grab	Grab			Grab			Grab			Grab		
Analyst		J. Moore			J. Moore			J. Moore			J. Moore		
Date of Analysis		12 Jan 96			13 Jan 96			13 Jan 96			13 Jan 96		
Sample Matrix		Groundwater			Groundwater			Groundwater			Groundwater		
Dilution		Dilution X 1			Dilution X 1			Dilution X 1			Dilution X 1		
PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 60122	units	Limit	2- 60123	units	Limit	3- 60124	units	Limit	4- 60125	units	Limit
Benzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Ethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Toluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Xylenes (Total)	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Methyl-tert-butyl ether (MTBE)	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Total VOA	EPA 8260	0	ug/l	1	0	ug/l	1	0	ug/l	1	0	ug/l	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	76-114	98	98	97	98
Toluene-d8	88-110	103	102	102	102
Bromoflourobenzene	86-115	95	97	96	97

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J. W. Moore, Chemist
Jerry Dees, Laboratory Director

Date/Time: 25-Jan-96 @ 13:23
Report Generated

PWC 5090/14

End of Report

for Jerry Dees

Navy Public Works Center
Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508
Phone (904) 452-4728/3642
Autovon 922-4728/3642

Requester: **NPWC Environmental**
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Laboratory Report

Total Volatile Aromatics by Method 8260

Report Number: 9601047 A
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60130			2- 60131			3- 60132			4- 60133		
Sample Name	Requester	MW-11			MW-3			MW-12			MW-6		
Collector Name		A.M.C.			A.M.C.			A.M.C.			A.M.C.		
Date/Time	Comp start												
Collected	Comp stop												
(Military)	Grab	10 Jan 96	@	1025	10 Jan 96	@	1605	10 Jan 96	@	1500	10 Jan 96	@	1440
Sample Type	Comp/Grab	Grab			Grab			Grab			Grab		
Analyst		J. Moore			J. Moore			J. Moore			J. Moore		
Date of Analysis		14 Jan 96			14 Jan 96			14 Jan 96			14 Jan 96		
Sample Matrix		Groundwater			Groundwater			Groundwater			Groundwater		
Dilution		Dilution	X	1	Dilution	X	1	Dilution	X	1	Dilution	X	1
PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 60130	units	Limit	2- 60131	units	Limit	3- 60132	units	Limit	4- 60133	units	Limit
Benzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Ethylbenzene	EPA 8260	BDL	ug/l	1	2	ug/l	1	BDL	ug/l	1	3	ug/l	1
Toluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Xylenes (Total)	EPA 8260	BDL	ug/l	2	21	ug/l	2	BDL	ug/l	2	4	ug/l	2
Methyl-tert-butyl ether (MTBE)	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Total VOA	EPA 8260	0	ug/l	1	23	ug/l	1	0	ug/l	1	7	ug/l	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	76-114	93	100	96	95
Toluene-d8	88-110	101	102	102	100
Bromofluorobenzene	86-115	98	96	98	95

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director

Date/Time: 25-Jan-96 @ 13:52
Report Generated

PWC 5090/14

End of Report

for Jerry Dees

Navy Public Works Center
Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508
Phone (904) 452-4728/3642
Autovon 922-4728/3642

Laboratory Report

Total Volatile Aromatics by Method 82

Requester:	NPWC Environmental
Address:	Bldg. 3887
	NAS Pensacola, FL 32508
Phone #:	452-4728
Contact:	Greg Campbell

Report Number:	9601047 B
Sample Date:	10 Jan 96
Received Date:	11 Jan 96
Sample Site:	NASP Bldg. 3255
Job Order #:	160 5001

Sample ID#	Lab	1- 60134	2- 60135	3- 60136	4-
Sample Name	Requester	Trip Blank	NAS 3255 Dup #1	NAS 3255 Equip Blank	
Collector Name		A.M.C.	A.M.C.	A.M.C.	
Date/Time	Comp start				
Collected	Comp stop				
(Military)	Grab	10 Jan 96 @ 1000	10 Jan 96 @ 1440	10 Jan 96 @ 1415	
Sample Type	Comp/Grab	Grab	Grab	Grab	
Analyst		J. Moore	J. Moore	J. Moore	
Date of Analysis		18 Jan 96	14 Jan 96	14 Jan 96	
Sample Matrix		Groundwater	Groundwater	Groundwater	
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 60134	units	Limit	2- 60135	units	Limit	3- 60136	units	Limit	4-	units	Limit
Benzene	EPA 8260	BDL	ug/l	1	1	ug/l	1	BDL	ug/l	1		ug/l	1
Ethylbenzene	EPA 8260	BDL	ug/l	1	3	ug/l	1	BDL	ug/l	1		ug/l	1
Toluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1		ug/l	1
Xylenes (Total)	EPA 8260	BDL	ug/l	2	4	ug/l	2	BDL	ug/l	2		ug/l	2
Methyl-tert-butyl ether (MTBE)	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1		ug/l	1
Total VOA	EPA 8260	0	ug/l	1	8	ug/l	1	0	ug/l	1		ug/l	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	76-114	98	92	91	
Toluene-d8	88-110	103	101	102	
Bromofluorobenzene	86-115	99	96	98	

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director

Date/Time: 25-Jan-96 @ 13:55
Report Generated

PWC 5090/14

End of Report

for Jerry Dees

Navy Public Works Center
Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508-6500
Phone (904) 452-4728
Autovon 922-4728

Laboratory Report
Total PAH's by Method 8270A

Requester: NPWC Environmental
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Report Number: 9601046 D
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60126	2- 60127	3- 60128	4- 60129
Sample Name	Requester	MW-5	MW-2	MW-1	MW-4
Collector Name		A.M.C.	A.M.C.	A.M.C.	A.M.C.
Date/Time	Comp start				
Collected	Comp stop				
(Military)	Grab	10 Jan 96 @ 1510	10 Jan 96 @ 1535	10 Jan 96 @ 1545	10 Jan 96 @ 1555
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab
Analyst		M. Chambers	M. Chambers	M. Chambers	M. Chambers
Date of Analysis		22 Jan 96	22 Jan 96	22 Jan 96	22 Jan 96
Sample Matrix		Groundwater	Groundwater	Blank	Groundwater
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Polynuclear Aromatics (PAH's)	METHOD #	1- 60126	units	Limit	2- 60127	units	Limit	3- 60128	units	Limit	4- 60129	units	Limit
Acenaphthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Acenaphthylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Anthracene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Benzo(a)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Benzo(a)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Benzo(b)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Benzo(g,h,i)perylene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Benzo(k)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Chrysene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Dibenzo(a,h)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Fluoranthene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Fluorene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Indeno(1,2,3-cd)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Naphthalene	EPA 8270A	BDL	ug/l	7	5*	ug/l	7	27	ug/l	7	BDL	ug/l	7
Phenanthrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Pyrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
1-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	5	ug/l	5	35	ug/l	5	BDL	ug/l	5
2-Methylnaphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7	51	ug/l	7	BDL	ug/l	7

SURROGATE RECOVERIES Compound	Acceptance Limits				
Nitrobenzene-d5	35-114	95	94	92	93
2-Fluorobiphenyl	43-116	105	100	101	94
Terphenyl-d14	33-141	116	113	112	116

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.
* = The compound was detected below the detection limit; therefore, it is an estimated value.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director
for Jerry Dees

Date/Time: 29-Jan-96 @ 08:37
Report Generated
End of Report

PWC 5090/14

Navy Public Works Center
Environmental Laboratory

Laboratory Report
Total PAH's by Method 8270A

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508-6500
Phone (904) 452-4728
Autovon 922-4728

Requester: NPWC Environmental
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Report Number: 9601046 C
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60122	2- 60123	3- 60124	4- 60125
Sample Name	Requester	MW-10	MW-9	MW-7	MW-8
Collector Name		A.M.C.	A.M.C.	A.M.C.	A.M.C.
Date/Time	Comp start				
Collected	Comp stop				
(Military)	Grab	10 Jan 96 @ 1020	10 Jan 96 @ 1050	10 Jan 96 @ 1421	10 Jan 96 @ 1615
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab
Analyst		M. Chambers	M. Chambers	M. Chambers	M. Chambers
Date of Analysis		18 Jan 96	18 Jan 96	19 Jan 96	22 Jan 96
Sample Matrix		Groundwater	Groundwater	Blank	Groundwater
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Polynuclear Aromatics (PAH's)	METHOD #	1- 60122	units	Limit	2- 60123	units	Limit	3- 60124	units	Limit	4- 60125	units	Limit
Acenaphthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Acenaphthylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Anthracene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Benzo(a)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Benzo(a)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Benzo(b)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Benzo(g,h,i)perylene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Benzo(k)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Chrysene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Dibenzo(a,h)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Fluoranthene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Fluorene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Indeno(1,2,3-cd)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Naphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7
Phenanthrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Pyrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
1-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
2-Methylnaphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7

SURROGATE RECOVERIES Compound	Acceptance Limits				
Nitrobenzene-d5	35-114	95	94	113	95
2-Fluorobiphenyl	43-116	98	97	113	104
Terphenyl-d14	33-141	111	109	125	119

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director

Date/Time: 25-Jan-96 @ 13:38
Report Generated

End of Report

for Jerry Dees

PWC 5090/14

Navy Public Works Center
Environmental Laboratory

Laboratory Report
Total PAH's by Method 8270A

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508-6500
Phone (904) 452-4728
Autovon 922-4728

Requester: NPWC Environmental
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Report Number: 9601047 C
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60130	2- 60131	3- 60132	4- 60133
Sample Name	Requester	MW-11	MW-3	MW-12	MW-6
Collector Name		A.M.C.	A.M.C.	A.M.C.	A.M.C.
Date/Time	Comp start				
Collected	Comp stop				
(Military)	Grab	10 Jan 96 @ 1025	10 Jan 96 @ 1605	10 Jan 96 @ 1500	10 Jan 96 @ 1440
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab
Analyst		M. Chambers	M. Chambers	M. Chambers	M. Chambers
Date of Analysis		22 Jan 96	22 Jan 96	22 Jan 96	22 Jan 96
Sample Matrix		Groundwater	Groundwater	Blank	Groundwater
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Polynuclear Aromatics (PAH's)	METHOD #	1- 60130	units	Limit	2- 60131	units	Limit	3- 60132	units	Limit	4- 60133	units	Limit
Acenaphthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Acenaphthylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Anthracene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Benzo(a)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Benzo(a)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Benzo(b)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Benzo(g,h,i)perylene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Benzo(k)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Chrysene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Dibenzo(a,h)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Fluoranthene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Fluorene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
Indeno(1,2,3-cd)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Naphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7
Phenanthrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
Pyrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3	BDL	ug/l	3
1-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
2-Methylnaphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7	BDL	ug/l	7

SURROGATE RECOVERIES Compound	Acceptance Limits				
Nitrobenzene-d5	35-114	98	94	95	93
2-Fluorobiphenyl	43-116	98	94	97	95
Terphenyl-d14	33-141	116	110	116	114

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director
For Jerry Dees

Date/Time: 25-Jan-96 @ 13:58
Report Generated
End of Report

PWC 5090/14

Navy Public Works Center
Environmental Laboratory

Laboratory Report
Total PAH's by Method 8270A

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508-6500
Phone (904) 452-4728
Autovon 922-4728

Requester: **NPWC Environmental**
Address: Bldg. 3887
NAS Pensacola, FL 32508
Phone #: 452-4728
Contact: Greg Campbell

Report Number: 9601047 D
Sample Date: 10 Jan 96
Received Date: 11 Jan 96
Sample Site: NASP Bldg. 3255
Job Order #: 160 5001

Sample ID#	Lab	1- 60135	2- 60136	3-	4-
Sample Name	Requester	NAS 3255 Dup #1	NAS 3255 Equip Blank		
Collector Name		A.M.C.	A.M.C.		
Date/Time	Comp start				
Collected	Comp stop				
(Military)	Grab	10 Jan 96 @ 1440	10 Jan 96 @ 1415		
Sample Type	Comp/Grab	Grab	Grab		
Analyst		M. Chambers	M. Chambers		
Date of Analysis		22 Jan 96	22 Jan 96		
Sample Matrix		Groundwater	Groundwater		
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Polynuclear Aromatics (PAH's)	METHOD #	1- 60135	units	Limit	2- 60136	units	Limit	3- 0	units	Limit	4- 0	units	Limit
Acenaphthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5		ug/l	5		ug/l	5
Acenaphthylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5		ug/l	5		ug/l	5
Anthracene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2		ug/l	2		ug/l	2
Benzo(a)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3		ug/l	3		ug/l	3
Benzo(a)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2		ug/l	2		ug/l	2
Benzo(b)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4		ug/l	4		ug/l	4
Benzo(g,h,i)perylene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3		ug/l	3		ug/l	3
Benzo(k)fluoranthene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4		ug/l	4		ug/l	4
Chrysene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3		ug/l	3		ug/l	3
Dibenzo(a,h)anthracene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3		ug/l	3		ug/l	3
Fluoranthene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2		ug/l	2		ug/l	2
Fluorene	EPA 8270A	BDL	ug/l	4	BDL	ug/l	4		ug/l	4		ug/l	4
Indeno(1,2,3-cd)pyrene	EPA 8270A	BDL	ug/l	2	BDL	ug/l	2		ug/l	2		ug/l	2
Naphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7		ug/l	7		ug/l	7
Phenanthrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3		ug/l	3		ug/l	3
Pyrene	EPA 8270A	BDL	ug/l	3	BDL	ug/l	3		ug/l	3		ug/l	3
1-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5		ug/l	5		ug/l	5
2-Methylnaphthalene	EPA 8270A	BDL	ug/l	7	BDL	ug/l	7		ug/l	7		ug/l	7

SURROGATE RECOVERIES Compound	Acceptance Limits				
Nitrobenzene-d5	35-114	97	99		
2-Fluorobiphenyl	43-115	98	97		
Terphenyl-d14	33-141	115	113		

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: J.W. Moore, Chemist
Jerry Dees, Laboratory Director

Date/Time: 25-Jan-96 @ 14:00
Report Generated

End of Report

for Jerry Dees

PWC 5090/14

Navy Public Works Center
Environmental Laboratory

Bldg 3887, Code 920
NAS Pensacola, Fl. 32508-6500
Phone (904) 452-4728
Autovon 922-4728
FAX (904) 452-2387/2799

Laboratory Report
Total Lead

Requester:	NPWC Environmental	Report Number:	9601046 E
Address:	Bldg. 3887	Sample Date:	10 Jan 96
	NAS Pensacola, Fl 32508	Received Date:	11 Jan 96
Phone #:	452-4728	Sample Site:	NASP Bldg. 3255
Contact:	Greg Campbell	Job Order #:	160 5001

Sample ID#	Lab	1- 60122	2- 60123	3-	4-	Analyst(s):
Sample Name	Requester	MW-10	MW-9			ICP - Brian Nelson
Collector Name		A.M.C.	A.M.C.			
Date/Time Collected (Military)	Comp start					
	Comp stop					Date(s) of analysis:
	Grab	10 Jan 96 @ 1020	10 Jan 96 @ 1050			ICP - 23 Jan 96
Sample Type	Comp/Grab	Grab	Grab			
Sample Matrix		Groundwater	Groundwater			

PARAMETER Metals:	METHOD #	ID# 1- 60122	units	Det. Limit	ID# 2- 60123	units	Det. Limit	ID# 3-	units	Det. Limit	ID# 4-	units	Det. Limit	Preservative(s)
Lead(Pb)	SW 6010A	X BDL	mg/l	0.05	X BDL	mg/l	0.05		mg/l	0.05		mg/l	0.05	None

Comments: mg/kg=milligrams per kilogram. mg/l=milligrams per liter. BDL=Below Detection Limit.

Approved by: J W Moore, Chemist
Jerry Dees, Laboratory Director
for Jerry Dees

Date/Time: 29-Jan-96 08:53

End of Report

PWC 5090/14

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory
Bldg. 3691, Code 920
NAS Pensacola, Fl. 32508-6500
Ph# - (904)452-4728/6587
Fax# - (904) 452-2799/2387
Autovon 922 prefix

Requester: NPWC Environmental
Address: Bldg 3887
NAS Pensacola Fl 32508
Phone #: 452-4728
Contact: Greg Campbell
Job Order #: 160 5001

Report Required? (Yes) No DEP? Yes (No)
Lab ID Number:
Sample Date: 1/10/96
Received Date: 1/10/96
Sample Site: NASP Bldg 3255
Lab Due Date: 1/24/96

Sample ID #	Lab	#1-6-0122	#2-6-0123	#3-6-0124	#4-6-0125
Sample Name or Location	----------	MW-10	MW-9	MW-7	MW-8
Sampled by	----------	aric			→
Composite Date/Time Collected	Begin				
	Frequency				
	End				
Grab Time	----------	1020	1050	1421	1615
Sample Matrix	----------	GW			→

Notes:

SINGLE PARAMETER by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
Gas Chromatogrphy	EPA SW 8000									5	40 ml x 2/4 oz.	HCl to pH<2/4°C
Halo. Vol. Org./GC	EPA SW 8010									5	40 ml x 2/4 oz.	HCl to pH<2/4°C
EDB & DBCP/GC	EPA SW 8011									3	40 ml x 2/4 oz.	HCl to pH<2/4°C
Non-Halo. Vol. Org./GC	EPA SW 8015(MOD)									5	1L (A) x 2/4 oz.	4°C
Arom. Vol. Org./GC	EPA SW 8020									3	40 ml x 2/4 oz.	HCl to pH<2/4°C
Halo./Arom. Vol. Org./GC	EPA 8010/8020									7	40 ml x 2/4 oz.	HCl to pH<2/4°C
Organochlor. Pest./PCB/GC	EPA SW 8080A									8	1Lx2/4 oz.	4°C
Chlor. Herb./GC	EPA SW 8150A									9	40 ml x 2/4 oz.	4°C
VOC/GCMS-Cap.	EPA SW 8260	X	VOA's						→	14	40 ml x 2/4 oz.	HCl to pH<2/4°C
Semivol. Org./GCMS-Cap.	EPA SW 8270A	X	BNA's						→	18	1Lx3/4 oz.	4°C

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Characterization (complete)	EPA SW-846									60	See below	See below
Ignitability (Flashpoint)	EPA SW 1010									2	250mV4 oz.	4°C
Reactivity (Cyanide & Sulfide)	SW 846									4	1L/4 oz.	4°C
Corrosivity (pH)	SW 9040 or 9045									1	250mV4 oz.	4°C
Toxicity (TCLP) complete	EPA SW-846									55	See below	See below
Non Volatile TCLP Extraction	EPA SW 1311									5	40 mlx3/4 oz.	4°C
ZHE TCLP Extraction	EPA SW 1311									6	1Lx4/32 oz.	HCl to pH<2/4°C
TCLP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
TCLP Herbicides	EPA SW 8150A									9	1L/4 oz.	4°C
TCLP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4°C
TCLP Metals (8)	EPA SW-846									7	500 mV4 oz.	HNO_3 to pH<2
Priority Pollutants (complete)	EPA SW-846									42	See below	See below
PP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
PP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4°C
PP Metals (13)	EPA SW-846									9	500 mV4 oz.	HNO_3 to pH<2
PP Cyanide & Phenol	EPA 600									4	1Lx2/4 oz.	NaOH-H_2SO_4/None
F001 - F005 Solvents	EPA SW-846									28	1Lx2&40mlx3/16 oz.	HNO_3 to pH<2
RCRA Metals (8)	EPA SW-846									7	500 mV4 oz.	HNO_3 to pH<2
PCBs in Oil	EPA SW 8080A									3	40 ml	4°C
Other:		X	LEAD →									

Comments:

Relinquished by: [signature]
Date/Time: 10 JAN 96 1715

Received by: [signature]
Date/Time: 1/11/96 0630

PWC 9310/6

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory
Bldg. 3891, Code 920
NAS Pensacola, Fl. 32508-6500
Ph#-(904)452-4728/6587
Fax# - (904) 452-2799/2387
Autovon 922 prefix

Requester: NPWC Environmental
Address: Bldg 3887
NAS Pensacola, Fl 32508
Phone #: 452-4728
Contact: Greg Campbell
Job Order #: 160 5001

Report Required? Yes No DEP? Yes No

Lab ID Number:
Sample Date: 1/10/96
Received Date: 1/10/96
Sample Site: NAP Bldg 3255
Lab Due Date: 1/24/96

Sample ID #	Lab	#1-6-0126	#2-6-0127	#3-6-0128	#4-6-0129
Sample Name or Location	----------	MW-5	MW-2	MW-1	MW-4
Sampled by	----------	QMC	→	→	→
Composite Date/Time Collected	Begin				
	Frequency				
	End				
Grab Time	----------	1510	1535	1545	1555
Sample Matrix	----------	GW	→	→	→

Notes:

SINGLE PARAMETER by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
Gas Chromatography	EPA SW 8000									5	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo. Vol. Org./GC	EPA SW 8010									5	40 ml x 2/4 oz.	HCl to pH<2/4° C
EDB & DBCP/GC	EPA SW 8011									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Non-Halo. Vol. Org./GC	EPA SW 8015(MOD)									5	1L (A) x 2/4 oz.	4°C
Arom. Vol. Org./GC	EPA SW 8020									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8010/8020									7	40 ml x 2/4 oz.	HCl to pH<2/4° C
Organochlor. Pest./PCB/GC	EPA SW 8080A									8	1Lx2/4 oz.	4°C
Chlor. Herb./GC	EPA SW 8150A									9	40 ml x 2/4 oz.	4°C
VOC/GCMS-Cap.	EPA SW 8260		VOATs		→		→		→	7	40 ml x 2/4 oz.	HCl to pH<2/4° C
Semivol. Org./GCMS-Cap.	EPA SW 8270A		PAHs		→		→		→	10	1Lx3/4 oz.	4°C

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Characterization (complete)	EPA SW-846									60	See below	See below
Ignitability (Flashpoint)	EPA SW 1010									2	250ml/4 oz.	4°C
Reactivity (Cyanide & Sulfide)	SW 846									4	1L/4 oz.	4°C
Corrosivity (pH)	SW 9040 or 9045									1	250ml/4 oz.	4°C
Toxicity (TCLP) complete	EPA SW-846									55	See below	See below
Non Volatile TCLP Extraction	EPA SW 1311									5	40 mlx3/4 oz.	4°C
ZHE TCLP Extraction	EPA SW 1311									6	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
TCLP Herbicides	EPA SW 8150A									9	1L/4 oz.	4°C
TCLP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									7	500 ml/4 oz.	HNO_3 to pH<2
Priority Pollutants (complete)	EPA SW-846									42	See below	See below
PP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
PP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									9	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide & Phenol	EPA 600									4	1Lx2/4 oz.	NaOH/H_2SO_4/None
F001 - F005 Solvents	EPA SW-846									28	1Lx2&40mlx3/16 oz.	HNO_3 to pH<2
RCRA Metals (8)	EPA SW-846									7	500 ml/4 oz.	HNO_3 to pH<2
PCBs in Oil	EPA SW 8080A									3	40 ml	4°C
Other:												

Comments:

Relinquished by: [signature]
Date/Time: 10 Jan 96 1715

Received by: [signature]
Date/Time: 1/11/96 0630

PWC 9510/8

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory
Bldg. 3891, Code 920
NAS Pensacola, Fl. 32508-6500
Ph#-(904)452-4728/6587
Fax# - (904) 452-2789/2387
Autovon 922 prefix

Requester: NPWC Environmental
Address: Bldg 3887
NAS Pensacola, Fl 32508
Phone #: 452-4728
Contact: Greg Campbell
Job Order #: 160 5001

Report Required? (Yes) No DEP? Yes (No)
Lab ID Number:
Sample Date: 1/10/96
Received Date: 1/10/96
Sample Site: NAS Bldg 3255
Lab Due Date: 1/24/96

Sample ID #	Lab	#1-6-0130	#2-6-0131	#3-6-0132	#4-6-0133	Notes:
Sample Name or Location	----------	MW-11	MW-3	MW-12	MW-6	
Sampled by	----------	GWC				
Composite Date/Time Collected	Begin					
	Frequency					
	End					
Grab Time	----------	1625	1605	1500	1440	
Sample Matrix	----------	GW				

SINGLE PARAMETER by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
Gas Chromatography	EPA SW 8000									5	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo. Vol. Org./GC	EPA SW 8010									5	40 ml x 2/4 oz.	HCl to pH<2/4° C
EDB & DBCP/GC	EPA SW 8011									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Non-Halo. Vol. Org./GC	EPA SW 8015(MOD)									5	1L (A) x 2/4 oz.	4°C
Arom. Vol. Org./GC	EPA SW 8020									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8010/8020									7	40 ml x 2/4 oz.	HCl to pH<2/4° C
Organochlor. Pest./PCB/GC	EPA SW 8080A									8	1Lx2/4 oz.	4°C
Chlor. Herb./GC	EPA SW 8150A									9	40 ml x 2/4 oz.	4°C
VOC/GCMS-Cap.	EPA SW 8260	X	VOAs							9	40 ml x 2/4 oz.	HCl to pH<2/4° C
Semivol. Org./GCMS-Cap.	EPA SW 8270A	X	PAHs							18	1Lx3/4 oz.	4°C

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Characterization (complete)	EPA SW-846									60	See below	See below
Ignitability (Flashpoint)	EPA SW 1010									2	250ml/4 oz.	4°C
Reactivity (Cyanide & Sulfide)	SW 846									4	1L/4 oz.	4°C
Corrosivity (pH)	SW 9040 or 9045									1	250ml/4 oz.	4°C
Toxicity (TCLP) complete	EPA SW-846									55	See below	See below
Non Volatile TCLP Extraction	EPA SW 1311									5	40 mlx3/4 oz.	4°C
ZHE TCLP Extraction	EPA SW 1311									6	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
TCLP Herbicides	EPA SW 8150A									9	1L/4 oz.	4°C
TCLP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									7	500 ml/4 oz.	HNO_3 to pH<2
Priority Pollutants (complete)	EPA SW-846									42	See below	See below
PP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
PP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									9	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide & Phenol	EPA 600									4	1Lx2/4 oz.	NaOH/H_2SO_4/None
F001 - F005 Solvents	EPA SW-846									28	1Lx2&40mlx3/16 oz.	HNO_3 to pH<2
RCRA Metals (8)	EPA SW-846									7	500 ml/4 oz.	HNO_3 to pH<2
PCBs in Oil	EPA SW 8080A									3	40 ml	4°C
Other:												

Comments:

Relinquished by: [signature]
Date/Time: 10 JAN 96 17 15

Received by: [signature]
Date/Time: 1/11/96

PWC 8510/8

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory
Bldg. 3691, Code 920
NAS Pensacola, Fl. 32508-6500
Ph# -(904)452-4728/8587
Fax# -- (904) 452-2789/2387
Autovon 922 prefix

Requester: NPWC Environmental
Address: Bldg 3887
NAS Pensacola, Fl 32508
Phone #: 452-4728
Contact: Greg Campbell
Job Order #: 160 5001

Report Required? (Yes) No DEP? Yes (No)
Lab ID Number:
Sample Date: 1/10/96
Received Date: 1/10/96
Sample Site: NAS P Bldg 3255
Lab Due Date: 1/24/96

Sample ID #	Lab	#1- 6-0134	#2- 6-0135	#3- 6-0136	#4-
Sample Name or Location	----------	TRIP BLANK	NAS 3255 Dup #1	NAS 3255 Equip BLANK	
Sampled by	----------	CROW	CROW	CROW	
Composite Date/Time Collected	Begin				
	Frequency				
	End				
Grab Time	----------	1000	1440	1415	
Sample Matrix	----------	GW	GW	GW	

Notes:

SINGLE PARAMETER by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
Gas Chromatogrrphy	EPA SW 8000									5	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo. Vol. Org./GC	EPA SW 8010									5	40 ml x 2/4 oz.	HCl to pH<2/4° C
EDB & DBCP/GC	EPA SW 8011									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Non-Halo. Vol. Org./GC	EPA SW 8015(MOD)									5	1L (A) x 2/4 oz.	4°C
Arom. Vol. Org./GC	EPA SW 8020									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8010/8020									7	40 ml x 2/4 oz.	HCl to pH<2/4° C
Organochlor. Pest./PCB/GC	EPA SW 8080A									8	1Lx2/4 oz.	4°C
Chlor. Herb./GC	EPA SW 8150A									9	40 ml x 2/4 oz.	4°C
VOC/GCMS-Cap.	EPA SW 8260	X	4		14		14			14	40 ml x 2/4 oz.	HCl to pH<2/4° C
Semivol. Org./GCMS-Cap.	EPA SW 8270A	X	PAH 3/4	X	PAH	X	PAH			10	1Lx3/4 oz.	4°C

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Characterization (complete)	EPA SW-846									60	See below	See below
Ignitability (Flashpoint)	EPA SW 1010									2	250ml/4 oz.	4°C
Reactivity (Cyanide & Sulfide)	SW 846									4	1L/4 oz.	4°C
Corrosivity (pH)	SW 9040 or 9045									1	250ml/4 oz.	4°C
Toxicity (TCLP) complete	EPA SW-846									55	See below	See below
Non Volatile TCLP Extraction	EPA SW 1311									5	40 mlx3/4 oz.	4°C
ZHE TCLP Extraction	EPA SW 1311									6	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
TCLP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
TCLP Herbicides	EPA SW 8150A									9	1L/4 oz.	4°C
TCLP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									7	500 ml/4 oz.	HNO_3 to pH<2
Priority Pollutants (complete)	EPA SW-846									42	See below	See below
PP Acid Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP B/N Extractables	EPA SW 8270A									10	1L/4 oz.	4°C
PP Pesticides	EPA SW 8080A									8	1L/4 oz.	4°C
PP Volatiles	EPA SW 8260									9	40 mlx3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									9	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide & Phenol	EPA 600									4	1Lx2/4 oz.	NaOH/H_2SO_4/None
F001 -- F005 Solvents	EPA SW-846									28	1Lx2&40mlx3/16 oz.	HNO_3 to pH<2
RCRA Metals (8)	EPA SW-846									7	500 ml/4 oz.	HNO_3 to pH<2
PCBs in Oil	EPA SW 8080A									3	40 ml	4°C
Other:												