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NAS PENSACOLA
5090.3a

SITE ASSESSMENT LETTER REPORT ADDENDUM WITH TRANSMITTAL FOR UNDERGROUND STORGE TANK SITE 1120 OUTLYING LANDING FIELD BRONSON NAS PENSACOLA FL
05/23/2001
TETRA TECH INC

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0027

May 23, 2001

04010569

Project Number 0401

Joe Fugitt, P.G.
Remedial Project Manager
Technical Review/Federal Facilities
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Reference: Clean Contract No. N62467-94-D0888
Contract Task Order No. 0112

Subject: Site Assessment Report Addendum
For Underground Storage Tank Site 1120
U.S. Navy Outlying Landing Field Bronson
Pensacola, Florida
FDEP Site Number 179202973

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit the Site Assessment Report (SAR) Addendum for the referenced Contract Task Order (CTO). This report has been prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) under CTO-0112, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

Site Assessment Report Addendum Objectives. The objective of the Site Assessment Report Addendum (SARA) is to address comments on the SAR provided by the Florida Department of Environmental Protection (FDEP) in a technical review letter dated April 9, 1998.

Previous Investigations. Previous investigations at the site include an Underground Storage Tank (UST) Closure Assessment completed in July 1994 and May 1995, and the initial SAR field investigation completed in August 1997.

SAR field activities were conducted at Site 1120 during February through December 1996 and January through August 1997. The SAR field activities included the drilling and sampling of twenty soil borings and the installation and sampling of thirty-three monitoring wells including thirty-two shallow-depth wells and one intermediate-depth well. In March 1998, the Naval Air Station Pensacola (NASP) Navy Public Works Center submitted the SAR based on the findings of all investigations.

Upon review of the SAR, FDEP issued a letter providing comments on the SAR and requiring the preparation of a SAR Addendum for the site. The letter detailed seven (7) comments to be addressed in order to meet the requirements of Chapter 62-770, Florida Administrative Code (FAC). A copy of the letter is provided in Attachment A. This letter report addresses these comments and provides a summary of the work performed by TtNUS and the resulting data.

Response To Comments.

Comment 1. Soil samples should be collected for laboratory analysis in accordance with the Department's "Interim Guidance for Laboratory Analysis of Soil Samples for Petroleum Contamination Site Assessments." While it appears that laboratory analyses of soil samples was conducted as part of the tank closure and initial remediation action at the site in July 1994, the location and depth these samples were taken were not provided and therefore cannot be correlated to monitoring wells and soil borings installed as part of the site assessment. Also, headspace readings at the locations soil samples were taken for analyticals were not provided.

Soil sample data from the Tank Closure and initial remedial action are currently not available. Therefore, on June 1, 2000, TtNUS drilled three soil borings for the collection of confirmation soil samples. The boring locations, adjacent to monitoring wells MW–11, MW–12, and DMW–34 (Figure 1, Attachment B), were selected based on organic vapor analysis (OVA) headspace results from the initial SAR. The soil borings were advanced from the land surface to 14 feet (ft) using hollow stem augers (HSA), and were sampled continuously (at 2-foot intervals) by split spoon. Soil boring logs are provided in Attachment C.

Seven subsurface soil samples (two samples from each soil boring and one duplicate) were collected at Site 1120 based on OVA headspace screening results, field observations, and/or proximity to the seasonal high groundwater level. Because the OVA headspace concentrations were low, ranging from 0 parts per million (ppm) to 3 ppm (Table 1, Attachment D), other factors, such as staining and/or odor, were considered important in choosing the sampling intervals. The analytical results for the soil samples are summarized in Table 2, Attachment D. A copy of the laboratory analytical and data validation reports is provided in Attachment E.

Each sample was analyzed for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons (TPH).

Toluene was detected in four of the soil samples at estimated concentrations ranging from 0.0012 milligrams/kilogram (mg/kg) to 1.5 mg/kg. All of the detected concentrations were below the Florida Soil Cleanup Target Levels (SCTL). No other VOCs were detected in the soil samples collected at the site.

Ten PAH compounds were detected in the soil sample from soil boring SB03 at 10 to 12 ft (OLFB20SB031012). All of the detected analytes, except benzo(a)pyrene, were detected at concentrations less than the Florida SCTLs. Benzo(a)pyrene was detected at a concentration of 0.108 mg/kg, which exceeds the Florida residential direct exposure SCTL of 0.1 mg/kg. However, because the sample was collected from a depth of 10 to 12 ft below land surface (bls), an actual direct exposure is unlikely. None of the other soil samples contained PAH compounds above instrument detection limits.

Six of the seven samples (OLFB20SB021214 is the exception) contained TPH. All detections were below the Florida SCTL.

Comment 2. The FDEP groundwater cleanup target level for acenaphthene is 20 µg/L, not 210 µg/L as stated in the report. It appears that some confusion occurred between groundwater cleanup target levels for acenaphthene and acenaphthalene.

The appropriate FDEP groundwater cleanup target levels are used to evaluate the current data.

Comment 3. The averaging of groundwater velocities calculated for three sites located at OLF Bronson in order to estimate groundwater velocity at this site is not valid. One may, assuming that the geologic properties are very similar, use averaging to estimate a hydraulic conductivity for the site. But this estimated hydraulic conductivity should be used in conjunction with a hydraulic gradient specific to the site in order to calculate a groundwater velocity.

On July 21, 2000, Tetra Tech conducted slug tests at wells MW–5, MW–30, and DMW–35. Falling head (slug introduced to the well) and rising head (slug removed from the well) tests were performed. Slug test data was recorded using an InSitu Hermit 2000® data logger and down well pressure transducer. A minimum of two falling head and two rising head tests were performed at wells MW–5 and MW–30. Because well DMW–35's screen was submerged, only rising head tests were recorded. In each well tested, each successive test was initiated once the well returned to 90% (minimum) of equilibrium conditions. Slug test data is provided in Attachment F.

Thirteen slug tests were performed on three of the Site 1120 monitoring wells (MW–5, MW–30, DMW–35) on July 21, 2000. Of the thirteen tests, nine runs (three from each well) were considered to be representative and were used in calculating the groundwater seepage velocity. Slug test data logs, seepage velocity calculations, average hydraulic conductivity calculations, and hydraulic gradient calculations are provided in Attachment F.

The horizontal hydraulic gradient calculation, using three monitoring well pairs (MW-18/MW-27, MW-4/MW-28, and MW-6/MW-30), estimated the average at 0.0014 ft/ft. Using this average, An average hydraulic conductivity of 2.067×10^{-3} ft/second, and an effective porosity for silty sand of 0.15, the calculated groundwater seepage velocity is 608 ft/year (yr). The calculation of this velocity does not take into consideration natural processes that effect groundwater movement such as advection, dispersion, and retardation. When retardation is taken into account, by introducing a retardation factor into the velocity equation (Attachment F), the calculated groundwater seepage velocity decreases to 336 ft/yr.

Comment 4. Based on the information in Table 2-1, the groundwater elevation at monitoring well MW-24 should be 13.88 feet. The groundwater elevation contours in Figure 2-3 should be redrawn incorporating this corrected information.

Additional groundwater elevation measurements were recorded on July 6, 2000. Table 4, Attachment D provides the recorded groundwater elevations measurements. Figure 2, Attachment B depicts the current groundwater elevation contours.

Comment 5. A deep monitoring well should be installed between monitoring wells MW-10 and MW-14. The well should be screened between 35 and 40 feet below land surface.

A single deep monitoring well, designated DMW–35, was installed by Groundwater Protection Inc. of Orlando, Florida on May 22, 2000. The monitoring well was installed using HSA and was located between existing monitoring wells MW–10 and MW–14 (Figure 1, Attachment B). The well is screened from 35 ft to 40 ft bls as per FDEP direction. Split-spoon soil samples were collected at 5 ft intervals from the land surface to the water table at approximately 18 ft bls. OVA headspace measurements were recorded from the samples to investigate "excessively contaminated soils" as per Chapter 62-770, FAC. Table 1 in Attachment D summarizes the OVA readings. Figure 1, Attachment B depicts the monitoring well locations. The soil boring and well construction logs for monitoring well DMW–35 are provided in Attachment C.

Comment 6. The proposed sampling and analysis of monitoring wells MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14, MW-16, MW-25, MW-19, AND

MW-24 for VOAs, PAHs, and TPH is acceptable. However, I feel that MW-1 and MW-5, located within the contaminated area, downgradient wells MW-26 and MW-30, deep monitoring well DMW-34 and the well requested above should also be sampled and analyzed for VOAs, PAHs, and TPH. The use of EPA Method 8310 should be considered for the analysis of PAHs as this method may have lower detection limits.

On July 6 through 8, 2000, TtNUS collected groundwater samples from eighteen monitoring wells located onsite. Groundwater sampling activities were conducted in accordance with TtNUS' FDEP approved, Comprehensive Quality Assurance Plan (CQAP) No. 980038. An equipment rinsate blank was collected and analyzed for the same parameters to satisfy quality assurance and quality control requirements. A trip blank was also collected and analyzed for VOCs to assure that the samples were not compromised during shipping.

Prior to groundwater sampling, TtNUS personnel recorded water level measurements in the monitoring wells to be sampled and calculated well volumes for purging. Purging and sampling were performed using low flow sampling techniques with Teflon™ tubing and a peristaltic pump. Following the collection of the groundwater samples, the sample bottles were packed on ice and shipped via overnight transport to Accutest in Orlando, Florida for analysis. Groundwater sampling field forms are provided in Attachment G.

Eighteen groundwater samples (plus two duplicate samples) were collected from Site 1120 and analyzed for VOCs, PAHs, and TPH. Seven of the onsite monitoring wells were reported to be dry (MW–1, MW–8, MW–9, MW–14, MW–15, MW–16, and MW–20). Four of those wells (MW–8, MW–9, MW–14, and MW–16) were to be sampled per FDEP direction. Monitoring wells MW-17 and MW-18 were sampled as substitutes for monitoring wells MW–8 and MW–9. The analytical results for the groundwater samples are summarized in Table 3, Attachment D. A copy of the laboratory analytical and data validation reports are provided in Attachment E.

Three VOCs, including 2-chloroethyl vinyl ether, ethylbenzene, and xylenes, were detected in the groundwater samples collected at Site 1120. However, total xylenes, reported in four of the samples, were the only VOC detected at concentrations exceeding the Florida Groundwater Cleanup Target Level (GCTL). The detected concentrations of xylenes ranged from 17.2 to 116 micrograms per liter (µg\L) and three of the detected concentrations (monitoring wells MW-4, MW-5, and MW-10) exceeded the Florida GCTL of 20 µg\L.

Three PAH compounds, including 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene, were detected in the groundwater samples. All three compounds were detected in groundwater samples from four monitoring wells (MW-4, MW-5, MW-10, and MW-25) at concentrations exceeding the Florida GCTLs of 20 µg\L. 1-Methylnaphthalene and 2-methylnaphthalene were detected in the groundwater samples from monitoring well MW-26 at concentrations exceeding the Florida GCTLs.

All of the detected groundwater concentrations with the exception of 2-methylnaphthalene in the groundwater sample from monitoring well MW-10 (203 µg\L) were less than the Florida Natural Attenuation Default Concentrations (FNADC). The FNADC for 2-methyl naphthalene is 200 µg\L. The duplicate sample for Monitoring Well MW-5 also contained 2-methylnaphthalene at a concentration (202 µg\L) exceeding the FGNADC; however, the concentration reported in the original sample (166 µg\L) was less than the default criteria.

TPH was detected in groundwater samples from fourteen of the monitoring wells at concentrations ranging from 328 to 9,350 µg\L. Four of the detected concentrations of TPH (monitoring wells MW-4, MW-5 duplicate sample, MW-10 and MW-26) exceeded the Florida GCTLs of 5,000 µg\L.

Figure 3 (Attachment B) depicts the lateral distribution of xylenes, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and TPH (analytes that exceed the GCTLs).

Comment 7. Water table elevations of all wells should be taken prior to groundwater sampling to determine groundwater flow direction and gradient. Water table elevations of deep wells should be used to determine if there are vertical gradients at the site.

Additional water level elevation measurements were recorded on July 6, 2000, prior to the groundwater sampling event. At this time, water levels were reported to be approximately 3 feet lower than during the last groundwater sampling event (1996). The lower water levels are attributed to ongoing drought conditions in the area, and resulted in several wells being dry. No free product was fond at the site. The groundwater level data are provided in Table 4, Attachment D and a groundwater isocontour map based on these measurements is provided as Figure 2, Attachment B. Groundwater flows predominately to the southwest towards the Perdido Bay. This is consistent with historical data on groundwater flow direction.

Vertical hydraulic gradient calculations were performed on two pairs of non-nested wells (MW-2/DMW-34 and MW-10/DMW-35) and resulted in vertical gradients of similar magnitude, but opposite direction. Monitoring well pair MW-2/DMW-34 calculations estimated the vertical gradient at 0.0036 ft/ft upwards; whereas monitoring well pair MW-10/DMW-35 calculations resulted in a vertical gradient of 0.0029 ft/ft downwards.

Conclusions.

- The soil sample from soil boring SB03 at 10 to 12 ft contained benzo(a)pyrene at a concentration of 0.108 mg/kg, which exceeds the Florida SCTL of 0.1 mg/kg for a residential area direct exposure limit. However, because the sample was collected from a depth of 10 to 12 feet below land surface (bls), an actual direct exposure is unlikely.

- An average horizontal hydraulic gradient was estimated at 0.0014 feet/foot. Using this average, a hydraulic conductivity of 2.067×10^{-3} ft/second, and an effective porosity of 0.15, the calculated groundwater seepage velocity is 608 ft/yr. When retardation is taken into account, the calculated groundwater seepage velocity decreases to 3 ft/yr.

- Groundwater samples from monitoring wells MW-4, MW-5, and MW-10 contained concentrations of total xylenes that exceeded the Florida GCTL of 20 µg\L. 1-Methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected in groundwater samples from five monitoring wells (MW-4, MW-5, MW-10, MW-25, and MW-26) at concentrations exceeding the Florida GCTLs of 20 µg\L. Four of the detected concentrations of TPH (monitoring wells MW-4, MW-5 duplicate sample, MW-10 and MW-26) exceeded the Florida GCTLs of 5000 µg\L.

- All of the detected groundwater concentrations, with the exception of 2-methylnaphthalene in one groundwater sample, were less than the Florida Natural Attenuation Default Concentrations.

- Groundwater flows predominately to the southwest towards Perdido Bay located approximately 5,000 ft from the site. Vertical hydraulic gradient calculations were performed on two pairs of non-nested wells and resulted in vertical gradients of similar magnitude, but opposite direction. Therefore, the vertical gradient results are inconclusive.

- Based on the SAR investigation, no free product is present at Site 1120. This conclusion is supported by the current investigation.

Recommendations. Groundwater contamination at concentrations exceeding Florida GCTL has been confirmed at the site. However, the detected concentrations do not generally exceed the Florida Natural Attenuation Default Criteria. Based on the findings and conclusions contained in the SAR dated March 1998 and the fieldwork and analytical results of this SAR Addendum, it is anticipated that the site would meet the No Further Action criteria within a five-year period. Therefore, TtNUS proposes that a Natural Attenuation Monitoring Plan be completed for groundwater only at Site 1120.

If you have any questions with regard to this submittal, please contact me at (850) 385 -9899.

Sincerely,

Gerald A Walker

Gerald A. Walker, P.G.
Task Order Manager
Florida License No. PG-0001180

GW/sb/sis

Enclosures

CC: B. Glover, SOUTHNAVFACENGCOM
G. Campbell, NASP PWD
D. Wroblewski (cover letter only), TtNUS
M. Perry/(unbound), TtNUS
Tallahassee file, TtNUS

ATTACHMENT A

FDEP SAR LETTER OF REVIEW

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 9, 1998

Mr. Byas Glover
Code 18410
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: U.S. Navy Outlying Field (OLF) Bronson, Site 1120
Pensacola, Florida
FDEP #179300938

Dear Mr. Glover:

I have completed the technical review of the Site Assessment Report (SAR) dated March 1998 (received March 24, 1998), submitted for this site 1120 OLF Bronson. Please submit a Site Assessment Report Addendum which addresses the comments in the attached memorandum from David Grabka.

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

Sincerely,

John W. Mitchell
Remedial Project Manager

cc: Dean Spencer, NAS Pensacola
[redacted], NAS Pensacola
Tom Moody, FDEP Northwest District

TJB TB JJC JJC ESN ESN

Florida Department of

Memorandum

Environmental Protection

TO: John Mitchell, E.S. III, Remedial Project Manager

THROUGH: Tim Bahr, P.G. Supervisor, Technical Review Section

FROM: David P. Grabka, E.S. I, Technical Review Section

DATE: April 7, 1998

SUBJECT: Site Assessment Report, March 18, 1998, Site 1120, U.S. Navy Outlying Landing Field (OLF) Bronson, Pensacola, FL, FDEP Facility #179300938

I have completed my review of the Site Assessment Report (SAR) prepared and submitted by Navy Public Works Center for the above-referenced site. In order to meet the requirements of Chapter 62-770, Florida Administrative Code (F.A.C.), a Site Assessment Report Addendum should be prepared and should address the following comments:

(1) Soil samples should be collected for laboratory analysis in accordance with the Department's "Interim Guidance for Laboratory Analyses of Soil Samples for Petroleum Contamination Site Assessments." While it appears that laboratory analyses of soil samples was conducted as part of the tank closure and initial remedial action at the site in July 1994, the location and depth these samples were taken were not provided and therefore cannot be correlated to monitoring wells and soil borings installed as part of the site assessment. Also, headspace readings at the locations soil samples were taken for analyticals were not provided.

(2) The FDEP groundwater cleanup target level for acenaphthene is 20 µg/l, not 210 µg/l as stated in the report. It appears that some confusion occurred between groundwater cleanup target levels for acenaphthene and acenaphthalene.

(3) The averaging of the groundwater velocities calculated for three sites located at OLF Bronson in order to estimate groundwater velocity at this site is not valid. One may, assuming that the geologic properties are very similar, use averaging to estimate a hydraulic conductivity for the site. But this estimated hydraulic conductivity should be used in conjunction with a hydraulic gradient specific to the site in order to calculate a groundwater velocity.

(4) Based on the information in Table 2-1, the groundwater elevation at monitoring well MW-24 should be 13.88 feet. The groundwater elevation contours in Figure 2-3 should be redrawn incorporating this corrected information.

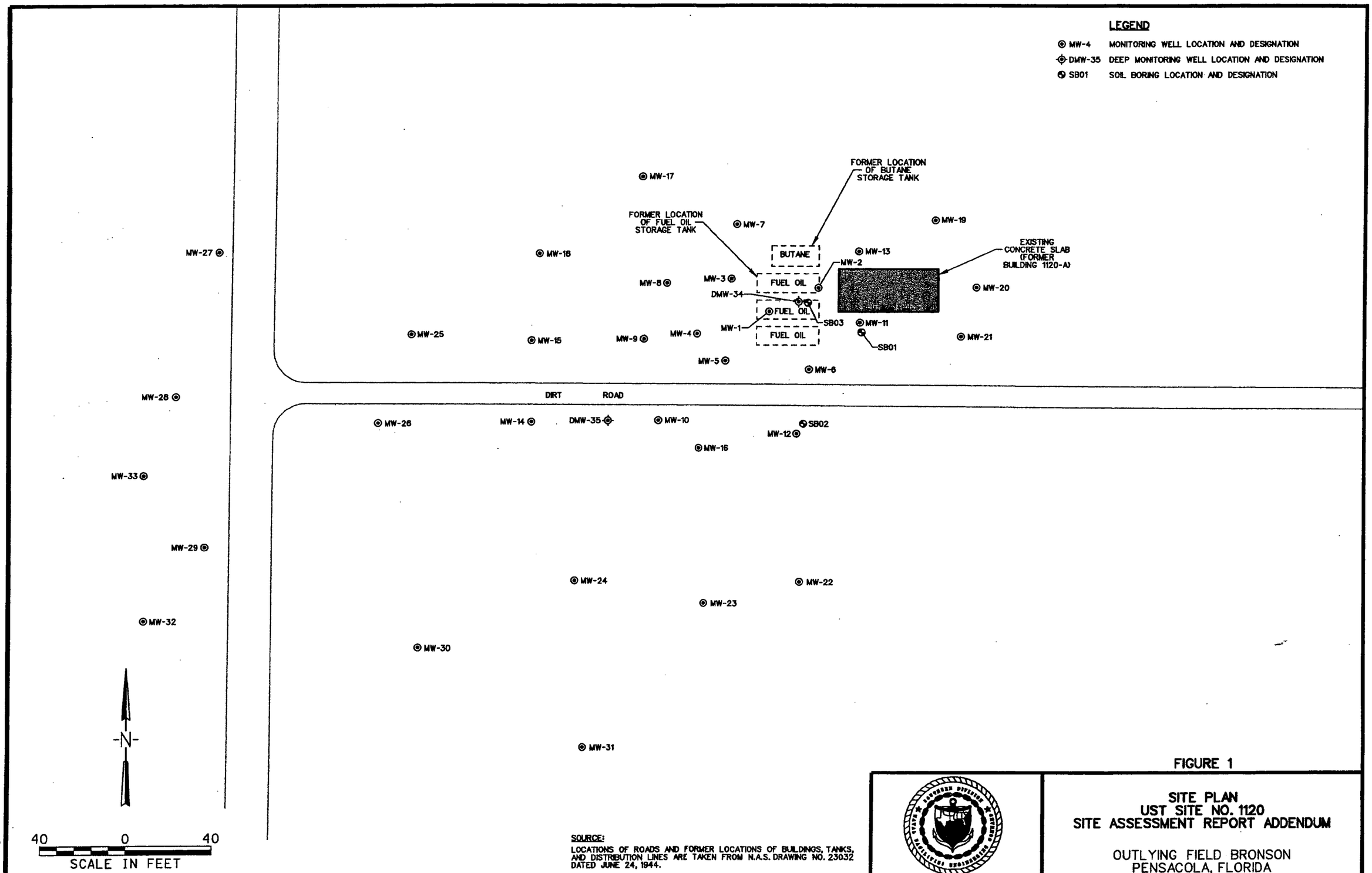
(5) A deep monitoring well should be installed between monitoring wells MW-10 and MW-14. The well should be screened between 35 and 40 feet below land surface.

(6) The proposed sampling and analysis of monitoring wells MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14, MW-16, MW-25, MW-19 and MW-24 for VOAs, PAHs and TPH is acceptable. However, I feel that MW-1 and MW-5, located within the contaminated area, downgradient wells MW-26 and MW-30, deep monitoring well DMW-34 and the well requested above should also be sampled and analyzed for VOAs, PAHs and TPH. The use of EPA Method 8310 should be considered for the analysis for PAHs as this method may have lower detection limits.

(7) Water table elevations of all wells should be taken prior to groundwater sampling to determine groundwater flow direction and gradient. Water table elevations of deep wells should be used to determine if there are vertical gradients at the site.

ATTACHMENT B

FIGURES



SOURCE:
LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS, TANKS, AND DISTRIBUTION LINES ARE TAKEN FROM N.A.S. DRAWING NO. 23032 DATED JUNE 24, 1944.

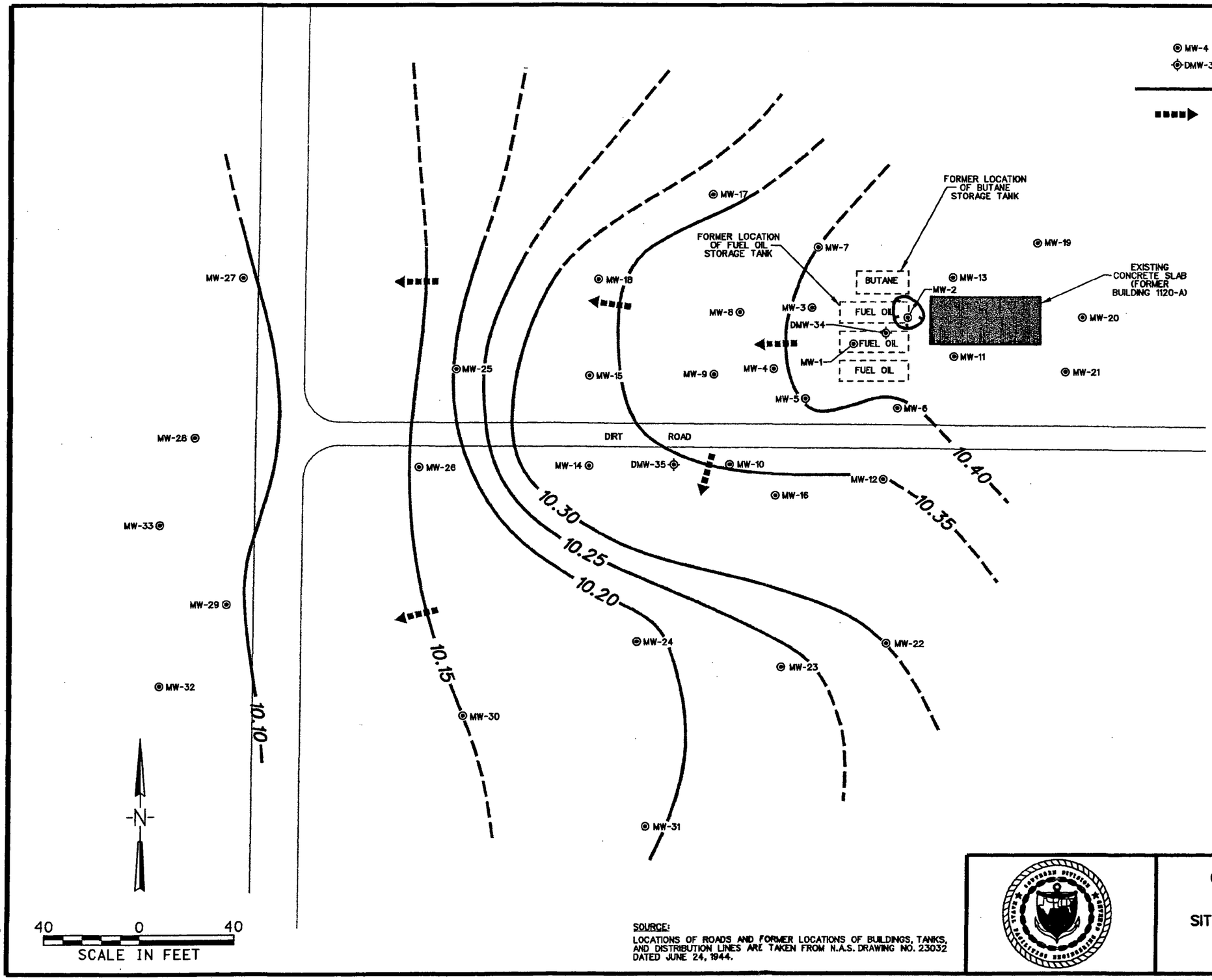
FIGURE 1

SITE PLAN
UST SITE NO. 1120
SITE ASSESSMENT REPORT ADDENDUM

OUTLYING FIELD BRONSON
PENSACOLA, FLORIDA

n11x17b.dgn

CAD FILE NO./DATE: 0401A001.dgn/4-9-01



LEGEND

- MW-4 — MONITORING WELL LOCATION AND DESIGNATION
- DMW-35 — DEEP MONITORING WELL LOCATION AND DESIGNATION
- POTENTIOMETRIC SURFACE ISOCONTOUR[1] (DASHED WHERE APPROX.)
- GROUNDWATER FLOW DIRECTION (APPROX.)

WELL NUMBER	GROUNDWATER[1] ELEVATION
MW-1	DRY
MW-2	10.39
MW-3	10.45
MW-4	10.38
MW-5	10.44
MW-6	10.39
MW-7	10.40
MW-8	DRY
MW-9	DRY
MW-10	10.36
MW-11	10.43
MW-12	10.35
MW-13	10.41
MW-14	DRY
MW-15	DRY
MW-16	DRY
MW-17	10.32
MW-18	10.33
MW-19	10.47
MW-20	DRY
MW-21	10.42
MW-22	10.30
MW-23	10.23
MW-24	10.17
MW-25	10.21
MW-26	10.16
MW-27	10.09
MW-28	10.04
MW-29	10.08
MW-30	10.15
MW-31	10.19
MW-32	10.01
MW-33	10.01
DMW-34	10.45
DMW-35	10.31

1-ELEVATIONS BASED UPON ARBITRARY TOC ELAVATION OF 30 FT. ABOVE MEAN SEA LEVEL ASSIGNED TO MW-1.

SOURCE:
LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS, TANKS, AND DISTRIBUTION LINES ARE TAKEN FROM N.A.S. DRAWING NO. 23032 DATED JUNE 24, 1944.

FIGURE 2

GROUNDWATER ISOCONTOUR MAP
ON JULY 6, 2000
UST SITE NO. 1120
SITE ASSESSMENT REPORT ADDENDUM

OUTLYING FIELD BRONSON
PENSACOLA, FLORIDA

n11x17b.dgn

CAD FILE NO./DATE: 0401A002.dgn/4-9-01

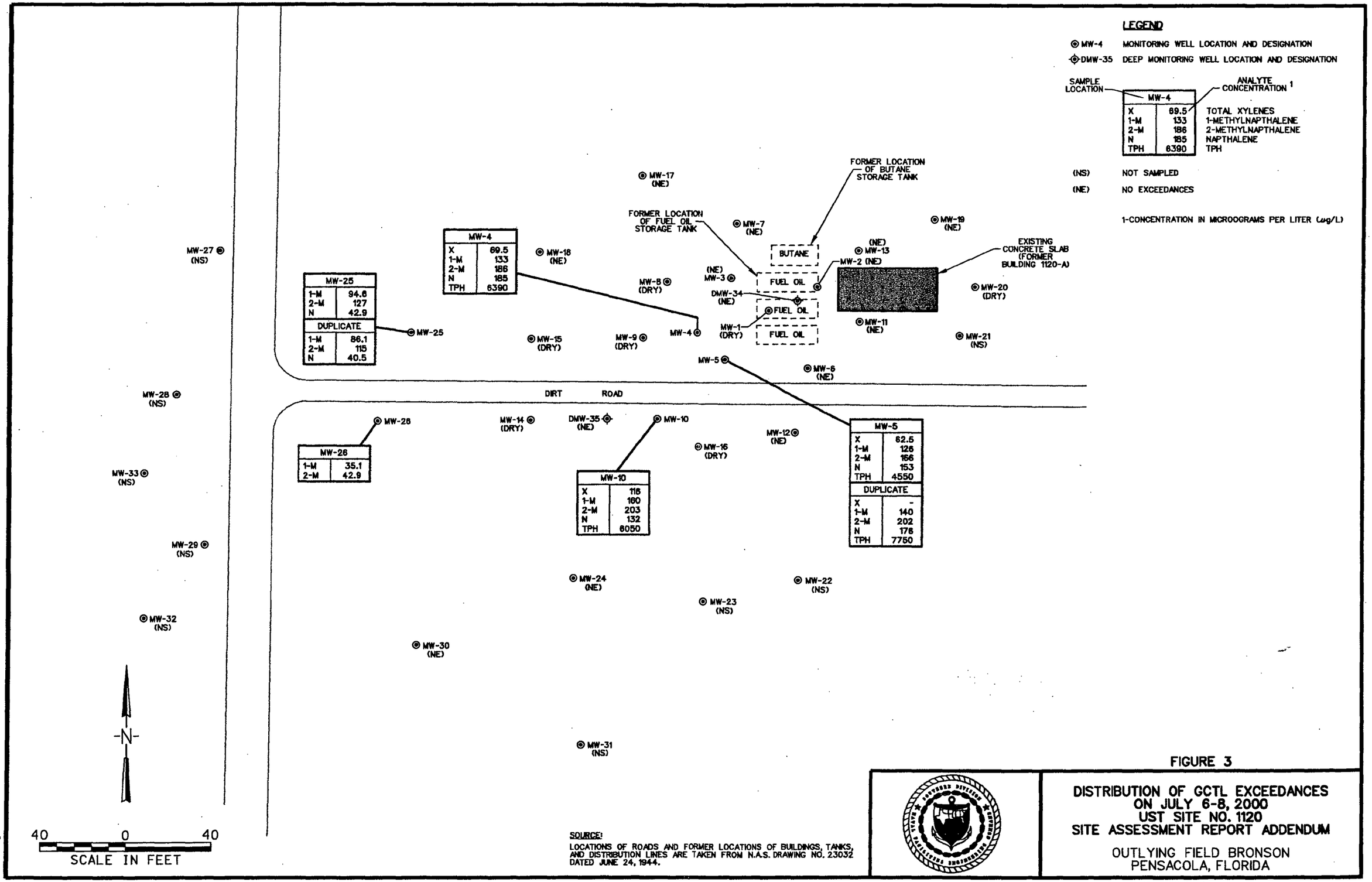


FIGURE 3

DISTRIBUTION OF GCTL EXCEEDANCES
ON JULY 6-8, 2000
UST SITE NO. 1120
SITE ASSESSMENT REPORT ADDENDUM

OUTLYING FIELD BRONSON
PENSACOLA, FLORIDA

CAD FILE NO./DATE: 0401A026.dgn/4-10-01

ATTACHMENT C

SOIL BORING AND WELL CONSTRUCTION LOGS

Tetra Tech NUS, Inc.

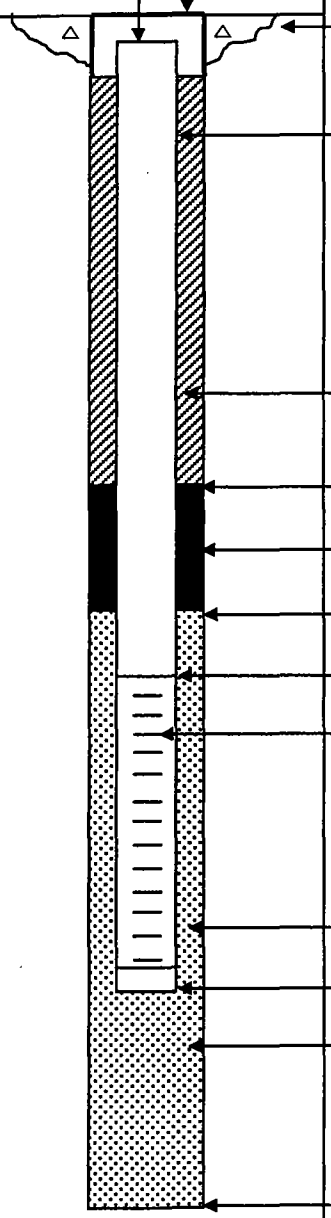
WELL No.: DMW-35

MONITORING WELL SHEET

PROJECT:	OLFB	DRILLING Co.:	GPI, Inc.	BORING No.:	DMW-35
PROJECT No.:	N7781/N7845	DRILLER:	J. Ziegler	DATE COMPLETED:	05/22/00
SITE:	Site 1120	DRILLING METHOD:	H.S.A.	NORTHING:	
GEOLOGIST:	S. Barton	DEV. METHOD:	Pump/Surge	EASTING:	

Ground Elevation =

Datum:



Not to Scale

Elevation / Depth of Top of Riser:		NA/ 32.26
Elevation / Height of Top of Surface Casing:		NA/NA
I.D. of Surface Casing:	NA	
Type of Surface Casing:	NA	
Type of Surface Seal:	Concrete	
I.D. of Riser:	2-inch	
Type of Riser:	PVC	
Borehole Diameter:	8-inch	
		/
Type of Backfill:	Neat Grout	
Elevation / Depth of Seal:		NA/ 29.5 feet
Type of Seal:	30/65 sand	
Elevation / Depth of Top of Filter Pack:		NA/ 31.5 feet
Elevation / Depth of Top of Screen:		NA/ 34.5 feet
Type of Screen:	PVC	
Slot Size x Length:	0.01inch x 5 feet	
I.D. of Screen:	2.0 -inch	
Type of Filter Pack:	20/30 sand	
Elevation / Depth of Bottom of Screen:		NA/ 39.5 feet
Elevation / Depth of Bottom of Filter Pack:		NA/ 40 feet
Type of Backfill Below Well:		
Elevation / Total Depth of Borehole:		NA/ 40 feet

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLFB - Site 1120
PROJECT NUMBER: 0401
DRILLING COMPANY: Groundwater Protection Inc
DRILLING RIG:

BORING No.: DMW-35
DATE: 5/22/00
GEOLOGIST: S. Barton
DRILLER: J. Ziegler

Depth (Ft.)	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0	SS	↓		6/6			brn	0-2": sandy loam		dry	Ø			
	↓	2		6/1		v. loose	lt brn	2-19": fine to med sand w/some silt		dry, no odor	Ø			
5	SS	5		6/6				0-12": same as above			Ø			
	↓	↓		6		loose	lt org	12-18": med sand w/ trace silt		moist, no odor	↓			
	↓	7												
10	SS	10		6/6		loose	white buff	fine sand w/trace silt		moist, no odor	Ø			
	↓	↓												
	↓	12												
15	SS	15		6/6				0-6": same as above			Ø			
	↓	↓		6/4		same stiffness	brn	6-22": very silty fine sand w/trace clay		v. wet, no odor	↓			
	↓	17												
20	SS	20					tan	med sand w/trace coarse sand + silt		saturated strong odor				
25		↓												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm):

Remarks:

Converted to Well: Yes ✓ No

Well I.D. #: DMW-35

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLFB 1120
PROJECT NUMBER: 0401
DRILLING COMPANY: Groundwater Protection Inc
DRILLING RIG:

BORING No.: DMW-35
DATE: 5/22/00
GEOLOGIST: S. Barton
DRILLER: J. Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						same as above						
30													
35													
40							End of boring						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ✓ No

Well I.D. #: DMW-35

BORING LOG

PROJECT NAME: Outlying Field Bronson, NAS Pensacola
PROJECT NUMBER: # 0401
DRILLING COMPANY: Groundwater Protection Inc.
DRILLING RIG: Diedrich 120
BORING NUMBER: OLFB20SB01
DATE: 01-Jun-00
GEOLOGIST: Skip Barton
DRILLER: Jeff Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or ROD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/Ft.) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1-ss	0	6 / 8	6 / 6	1150		v. loose	brn	SANDY LOAM topsoil		w/ organic matter	0	6	0	6
↓	2	9 / 10	6 /			v. loose	yllw	SAND, fine- to med.-grained,		dry, no odor	0	6	0	6
								trace silt						
2-ss	4	3 / 2	6 / 6	1152		loose	tan	SAND, fine-grained, trace silt		moist, no odor	0	6	0	8
↓	6	2 / 3	6 / 2											
3-ss	10	8 / 7	6 / 6	1156		loose	wht/	SAND, fine-grained, trace silt		moist, no odor	0	6	0	8
↓	12	9 / 10	6 /				buff							
4-ss	12	5 / 8	6 / 6	1200				same as above, trace clay		wet, no odor	0	6	0	8
↓	14	13 / 14	6 / 2											
						BORING TERMINATED @14 FEET BGS								

* When rock coring, enter rock brokeness.
** Include monitor reeding in 6 foot intervals @ borehole. Increase reading frequency if elevated response is read.

Remarks: Lab samples collected @ 4-6 ft and 12-14 ft intervals.

Drilling Area Background (ppm): 6

Converted to Well? Yes (No)

Well I.D. #:

BORING LOG

PROJECT NAME:	Outlying Field Bronson, NAS Pensacola	BORING NUMBER:	OLFB20SB02
PROJECT NUMBER:	# 0401	DATE:	01-Jun-00
DRILLING COMPANY:	Groundwater Protection Inc.	GEOLOGIST:	Skip Barton
DRILLING RIG:	Diedrich 120	DRILLER:	Jeff Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or ROD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/Ft.) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1-ss	0	5 / 7	6 / 6	1206		v. loose	brn	SANDY LOAM topsoil		w/ organic matter	0	9	0	12
↓	2	3 / 4	6 / 1			v. loose	yllw	SAND, fine- to med.-grained,		dry, no odor	0	9	0	12
								trace silt						
2-ss	4	3 / 3	6 / 6	1210		loose	org/	SAND, fine- to med.-grained,		moist, no odor	2	10	0	15
↓	6	3 / 3	6 /				brn	trace silt						
3-ss	8	5 / 6	/	1214				no return						
↓	10	4 / 6	/											
4-ss	10	5 / 5	6 / 6	1219		loose	wht	SAND, fine-grained, some silt		moist, no odor	0	9	0	15
↓	12	7 / 7	6 / 2											
5-ss	12	4 / 6	6 / 6	1224				same as above, trace clay		wet, no odor	0	9	0	15
↓	14	8 / 7	2 /											
						BORING TERMINATED @14 FEET BGS								

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is read.

Remarks: Lab samples collected @ 4-6 ft and 12-14 ft intervals.

Drilling Area Background (ppm): 9

Converted to Well? Yes (No)

Well I.D. #:

BORING LOG

PROJECT NAME: Outlying Field Bronson, NAS Pensacola
PROJECT NUMBER: # 0401
DRILLING COMPANY: Groundwater Protection Inc.
DRILLING RIG: Diedrich 120
BORING NUMBER: OLFB20SB03
DATE: 01-Jun-00
GEOLOGIST: Skip Barton
DRILLER: Jeff Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or ROD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/Ft.) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1-ss	0	5 / 7	6 / 6	1231		v. loose	brn	SANDY LOAM topsoil		w/ organic matter	0	8	0	12
↓	2	3 / 4	6 / 1			v. loose	yllw	SAND, fine- to med.-grained,		dry, no odor	0	8	0	12
								trace silt						
2-ss	4	3 / 3	6 / 6	1236		loose	org/	SAND, fine- to med.-grained,		moist, no odor	0	11	0	15
↓	6	3 / 3	6 /				brn	trace silt						
3-ss	8	5 / 6	/	1242		loose	tan	SAND, medium-grained, trace		moist, no odor	1	10	0	15
↓	10	4 / 6	/					silt						
4-ss	10	5 / 5	6 / 6	1247		loose	wht/	SAND, fine-grained, some silt		moist, no odor	3	10	0	16
↓	12	7 / 7	6 / 2				buff							
5-ss	12	4 / 6	6 / 6	1251				same as above, trace clay		wet, no odor	1	10	0	15
↓	14	8 / 7	2 /											
						BORING TERMINATED @14 FEET BGS								

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is read.

Remarks: Lab samples collected @ 8-10 ft and 10-12 ft intervals, duplicate from 10-12 ft.

Drilling Area Background (ppm): 9

Converted to Well? Yes (No)

Well I.D. #:

ATTACHMENT D

TABLES

TABLE 1

SOIL SCREENING HEADSPACE CONCENTRATIONS-SITE 1120
OUTLYING LANDING FIELD BRONSON,PENSACOLA, FLORIDA

Sample ID	Sample Depth feet bls	Sample Date	Unfiltered Concentration (PPM)	Filtered Concentration (PPM)	Net VOC Concentration (PPM)
SB01	0 - 2	6/1/00	0	NA	0
	4 - 6		0	NA	0
	10 - 12		0	NA	0
	12 - 14		0	NA	0
SB02	0 - 2	6/1/00	0	NA	0
	4 - 6		2	NA	2
	8 - 10		0	NA	0
	10 - 12		0	NA	0
	12 - 14		1	NA	1
SB03					
	0 - 2	6/1/00	0	NA	0
	4 - 6		0	NA	0
	8 - 10		1	NA	1
	10 - 12		3	NA	3
	12 - 14		1	NA	1
DMW-35	0 - 2	5/22/00	0	NA	0
	5 - 7		0	NA	0
	10 - 12		0	NA	0
	15 - 17		0	NA	0

PPM - Parts Per Million bls - below land surface
VOC - volatile organic compounds NA - not applicable

TABLE 2
ANALYTICAL SUMMARY FOR SOILS - SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA
PAGE 1 OF 2

Sample No.		OLFB20SB010406	OLFB20SB011214	OLFB20SB020406	OLFB20SB021214	OLFB20SB030810
Sample Location		SB01	SB01	SB02	SB02	SB03
Collect Date		6/1/00	6/1/00	6/1/00	6/1/00	6/1/00
Sample Depth (bls)		4-6'	12-14'	4-6'	12-14'	8-10'
	DE1[1]/DE2[2]/LE[3] (mg/kg)					
Volatile[4] (mg/kg)						
Toluene	380/2600/0.5	--	0.0014 [J]	0.0015 [J]	--	0.0012 [J]
Polycyclic Aromatic Hydrocarbons[5] (mg/kg)						
Benzo(a)anthracene	1.4/5.0/3.2	--	--	--	--	--
Benzo(a)pyrene	0.1/0.5/8	--	--	--	--	--
Benzo(b)fluoranthene	1.4/4.8/10	--	--	--	--	--
Benzo(g,h,i)perylene	2300/41000/32000	--	--	--	--	--
Benzo(k)fluoranthene	15/52/25	--	--	--	--	--
Chrysene	140/450/77	--	--	--	--	--
Fluoranthene	2900/48000/1200	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	1.5/5.3/28	--	--	--	--	--
Phenanthrene	2000/30000/250	--	--	--	--	--
Pyrene	2200/37000/880	--	--	--	--	--
Total Petroleum Hydrocarbons[6] (mg/kg)	340/2500/340	70.3	47.2	12.5	--	16.6

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.
[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.
[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.
[4] SW-846 8260B, [5] SW-846 8310, [6] FDEP FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration.
-- indicates analyte was not detected.
bls = below land surface
Bold indicates an exceedance of regulatory limits.

TABLE 2
ANALYTICAL SUMMARY FOR SOILS - SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		OLFB20SB031012	OLFB20D001
Sample Location		SB03	SB03 Duplicate
Collect Date		6/1/00	6/1/00
Sample Depth (bls)		10-12'	10-12'
	DE1[1]/DE2[2]/LE[3] (mg/kg)		
Volatile[4] (mg/kg)			
Toluene	380/2600/0.5	--	0.0012 [J]
Polycyclic Aromatic Hydrocarbons[5] (mg/kg)			
Benzo(a)anthracene	1.4/5.0/3.2	0.123	--
Benzo(a)pyrene	0.1/0.5/8	**0.108**	--
Benzo(b)fluoranthene	1.4/4.8/10	0.136	--
Benzo(g,h,i)perylene	2300/41000/32000	0.091	--
Benzo(k)fluoranthene	15/52/25	0.0782	--
Chrysene	140/450/77	0.136 [J]	--
Fluoranthene	2900/48000/1200	0.288 [J]	--
Indeno(1,2,3-cd)pyrene	1.5/5.3/28	0.142	--
Phenanthrene	2000/30000/250	0.120 [J]	--
Pyrene	2200/37000/880	0.186 [J]	--
Total Petroleum Hydrocarbons[6] (mg/kg)	340/2500/340	22.0	20.6

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.
[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.
[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.
[4] SW-846 8260B, [5] SW-846 8310, [6] FDEP FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration.
-- indicates analyte was not detected.
bls = below land surface
Bold indicates an exceedance of regulatory limits.

TABLE 3
ANALYTICAL SUMMARY FOR GROUNDWATER-SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		OLFB20MW02GW	OLFB20MW03GW	OLFB20MW04GW	OLFB20MW05GW	OLFB20MD001
Sample Location		MW-2	MW-3	MW-4	MW-5	MW-5 Duplicate
Collect Date		7/8/00	7/7/00	7/7/00	7/6/00	7/7/00
	Groundwater Clean-up Criteria[1] (µg/L)					
Volatile[2] (µg/L)						
2-Chloroethyl Vinyl Ether	175	--	--	--	--	--
Benzene	1	--	--	--	--	--
Ethylbenzene	30	--	--	24.6	27.5	--
Methyl Tert-Butyl Ether	50	--	--	--	--	--
Toluene	40	--	--	--	--	--
Xylenes	20	--	--	**69.5**	**62.5**	--
Polycyclic Aromatic Hydrocarbons[3] (µg/L)						
1-Methylnaphthalene	20	6.0	--	**133**	**126**	**140**
2-Methylnaphthalene	20	7.0	--	**186**	**166**	**202**
Naphthalene	20	3.0	--	**185**	**153**	**176**
Total Residual Petroleum Hydrocarbons[4] (µg/L)	5,000	1,140	1,570	**6,390**	4,550[J]	**7,750[J]**

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FDEP FL-PRO
-- indicates analyte not detected.
[J] indicates the presence of a chemical at an estimated concentration.
Bold indicates an exceedance of regulatory limits.

TABLE 3
ANALYTICAL SUMMARY FOR GROUNDWATER-SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		OLFB20MW06GW	OLFB20MW07GW	OLFB20MW10GW	OLFB20MW11GW	OLFB20MW12GW
Sample Location		MW-6	MW-7	MW-10	MW-11	MW-12
Collect Date		7/7/00	7/7/00	7/6/00	7/8/00	7/8/00
	Groundwater Clean-up Criteria[1] (µg/L)					
Volatile[2] (µg/L)						
2-Chloroethyl Vinyl Ether	175	--	--	--	--	--
Benzene	1	--	--	--	--	--
Ethylbenzene	30	--	--	29.7	--	--
Methyl Tert-Butyl Ether	50	--	--	--	--	--
Toluene	40	--	--	--	--	--
Xylenes	20	--	--	**116**	--	--
Polycyclic Aromatic Hydrocarbons[3] (µg/L)						
1-Methylnaphthalene	20	--	--	**160**	--	3.5
2-Methylnaphthalene	20	--	--	**203**	--	5.4
Naphthalene	20	--	--	**132**	--	--
Total Residual Petroleum Hydrocarbons[4] (µg/L)	5,000	328	720	**6,050**	--	1,780

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FDEP FL-PRO
-- indicates analyte not detected.
[J] indicates the presence of a chemical at an estimated concentration.
Bold indicates an exceedance of regulatory limits.

TABLE 3
ANALYTICAL SUMMARY FOR GROUNDWATER-SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		OLFB20MW17GW	OLFB20MW18GW	OLFB20MW19GW	OLFB20MW24GW	OLFB20MW25GW
Sample Location		MW-17	MW-18	MW-19	MW-24	MW-25
Collect Date		7/8/00	7/8/00	7/8/00	7/8/00	7/8/00
	Groundwater Clean-up Criteria[1] (µg/L)					
Volatile[2] (µg/L)						
2-Chloroethyl Vinyl Ether	175	--	--	--	--	--
Benzene	1	--	--	--	--	--
Ethylbenzene	30	--	--	--	--	4.2
Methyl Tert-Butyl Ether	50	--	--	--	--	--
Toluene	40	--	--	--	--	--
Xylenes	20	--	--	--	--	17.5
Polycyclic Aromatic Hydrocarbons[3] (µg/L)						
1-Methylnaphthalene	20	--	--	--	1.9[J]	**94.6**
2-Methylnaphthalene	20	--	--	--	--	**127**
Naphthalene	20	--	--	--	--	**42.9**
Total Residual Petroleum Hydrocarbons[4] (µg/L)	5,000	3,560	1,040	--	769	2,880

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FDEP FL-PRO
-- indicates analyte not detected.
[J] indicates the presence of a chemical at an estimated concentration.
Bold indicates an exceedance of regulatory limits.

TABLE 3
ANALYTICAL SUMMARY FOR GROUNDWATER-SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		OLFB20D002	OLFB20MW26GW	OLFB20MW30GW	OLFB20MW34GW	OLFB20MW35GW
Sample Location		MW-25 Duplicate	MW-26	MW-30	MW-34	MW-35
Collect Date		7/8/00	7/8/00	7/8/00	7/8/00	7/6/00
	Groundwater Clean-up Criteria[1] (µg/L)					
Volatile[2] (µg/L)						
2-Chloroethyl Vinyl Ether	175	--	--	--	--	--
Benzene	1	--	--	--	--	--
Ethylbenzene	30	4.3	0.64[J]	--	--	--
Methyl Tert-Butyl Ether	50	--	--	--	--	--
Toluene	40	--	--	--	--	--
Xylenes	20	17.2	--	--	--	--
Polycyclic Aromatic Hydrocarbons[3] (µg/L)						
1-Methylnaphthalene	20	**86.1**	**35.1**	--	--	--
2-Methylnaphthalene	20	**115**	**42.9**	--	--	--
Naphthalene	20	**40.5**	**10.6**	--	--	--
Total Residual Petroleum Hydrocarbons[4] (µg/L)	5,000	2,320	**9,350**	510	--	--

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FDEP FL-PRO
-- indicates analyte not detected.
[J] indicates the presence of a chemical at an estimated concentration.
Bold indicates an exceedance of regulatory limits.

TABLE 4

GROUNDWATER ELEVATION DATA FOR JULY 6, 2000-SITE 1120
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Well Number	Top of Casing Elevation [1] (ft)	Depth to Water BTOC (ft)	Groundwater Elevation [1] (ft)
MW-1	30.00	DRY	NA
MW-2	30.08	19.69	10.39
MW-3	30.74	20.29	10.45
MW-4	29.08	18.70	10.38
MW-5	28.36	17.92	10.44
MW-6	28.30	17.91	10.39
MW-7	29.46	19.06	10.40
MW-8	29.90	DRY	NA
MW-9	29.66	DRY	NA
MW-10	29.21	18.85	10.36
MW-11	28.43	18.00	10.43
MW-12	28.66	18.31	10.35
MW-13	29.42	19.01	10.41
MW-14	29.51	DRY	NA
MW-15	30.38	DRY	NA
MW-16	28.71	DRY	NA
MW-17	30.71	20.39	10.32
MW-18	30.59	20.26	10.33
MW-19	30.22	19.75	10.47
MW-20	29.85	DRY	NA
MW-21	28.24	17.82	10.42
MW-22	28.01	17.71	10.30
MW-23	28.52	18.29	10.23
MW-24	29.45	19.28	10.17
MW-25	30.25	20.04	10.21
MW-26	30.91	20.75	10.16
MW-27	32.55	22.46	10.09
MW-28	32.68	22.64	10.04
MW-29	31.03	20.95	10.08
MW-30	29.71	19.56	10.15
MW-31	29.18	18.99	10.19
MW-32	30.43	20.42	10.01
MW-33	32.11	22.10	10.01
DMW-34	31.46	21.01	10.45
DMW-35	32.26	21.95	10.31

Notes:
BTOC - Below Top of Casing
MSL - Mean Sea Level Datum
DRY - no water detected in well
NA - not applicable
[1] Elevations based upon arbitrary TOC elevation of 30 ft. above MSL assigned to MW-1.

ATTACHMENT E
DATA VALIDATION REPORTS
LABORATORY ANALYTICAL DATA

Tetra Tech NUS, Inc. **Internal Correspondence**

TO: Mr. Gerald Walker **DATE:** August 24, 2000

FROM: William Howard Engle **CC:** File

SUBJECT: Organic Data Validation – VOA, EDB, PAH, and TRPH
CTO112 – NAS Pensacola
SDG F7009

SAMPLES: 41/Aqueous

16TB070900	20TB070800	59TB070900
OLFB16001 *	OLFB16MW03GW *	OLFB16MW06GW *
OLFB16MW08GW *	OLFB16MW09GW *	OLFB20001 *
OLFB20D002 *	OLFB20MW02GW *	OLFB20MW11GW *
OLFB20MW12GW *	OLFB20MW17GW *	OLFB20MW18GW *
OLFB20MW19GW *	OLFB20MW24GW *	OLFB20MW25GW *
OLFB20MW26GW *	OLFB20MW30GW *	OLFB20MW34GW *
OLFB69001	OLFB59D001	OLFB59D002
OLFB59MW01GW	OLFB59MW02GW	OLFB59MW04GW
OLFB59MW21GW	OLFB59MW22GW	OLFB59MW23GW
OLFB59MW27GW	OLFB59MW28GW	OLFB59MW34GW
OLFB59MW47GW	OLFB59MW52GW	OLFB59MW60GW
OLFB59MW63GW	OLFB59MW67GW	OLFB59MW68GW
OLFB59MW69GW		

OVERVIEW

The sample set for CTO112, SDG F7009; Naval Air Station Pensacola, Pensacola, Florida consists of thirty-eight (38) aqueous environmental samples, three (3) trip blanks. Three duplicate pairs; OLFB29MW25GW / OLFB20D002, OLFB59MW60GW / OLFB59D001, and OLFB59MW23GW / OLFB59D002, were included in this SDG. The environmental samples, with the exception of samples 16TB070900, 20TB070800, and 59TB070900, were analyzed for Benzene, Toluene, Ethylbenzene, Total Xylenes, and Methyl-tert-butyl ether (MTBE) (VOCs), and Total Residual Petroleum Hydrocarbons (TRPHs). Samples 16TB070900, 20TB070800, and 59TB070900 were analyzed for VOCs only. The samples with a "*" were also analyzed for Polycylic Aromatic Hydrocarbons (PAHs). Sample OLFB59MW23GW was also analyzed for ethylene dibromide (EDB).

The samples were collected by Tetra Tech NUS on July 8-10, 2000 and analyzed by Accutest Southeast Laboratory. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW-846 Method 8021B (VOCs), EPA method 504.1 (EDB), SW-846 method 8310 (PAHs), and FL-PRO (TRPHs) analytical and reporting protocols.

The data in this SDG was validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • Laboratory method/field quality control blank results
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Supporting documentation is presented in Appendix C. Qualified analytical results are presented in Appendix A. The original laboratory data is contained in Appendix B.

Volatile Fraction

All quality control criteria were met for this fraction.

EDB

All quality control criteria were met for this fraction.

Polycylcic Aromatic Hydrocarbon Fraction

All quality control criteria were met for this fraction.

Total Residual Petroleum Fraction

All quality control criteria were met for this fraction.

Field Duplicate Summary

Analyte	OLFB20MW25GW (ug/L)	OLFB20D002 (ug/L)	%D
Ethylbenzene	4.2	4.3	2.3
Total xylenes	17.5	17.2	1.7
1-methylnaphthalene	94.6	86.1	9.4
2-methylnaphthalene	127	115	9.9
naphthalene	42.9	40.5	5.8
TRPH	2.88 mg/L	2.32 mg/L	22
	OLFB59MW60GW (ug/L)	OLFB59D001 (ug/L)	%D
	No positives reported	No positives reported	
	OLFB59MW23GW (ug/L)	OLFB59D002 (ug/L)	%D
Benzene	225	214	5.0
Ethylbenezene	173	177	2.2
MTBE	10U	9.2J	N/A
Toluene	1750	1590	4.8
Total xylenes	1040	1030	1.0
TRPH	4.24 mg/L	3.34 mg/L	24

Notes

Samples –24 and –14 were reported with estimated "E" results for toluene due to the exceedence of the linear calibration range for the instrument. Sample –24 was analyzed twice, once at a dilution, but the result was still above the linear calibration range. No uncompromised vial was available so the lab did not perform another dilution. Sample –14 was analyzed twice at two dilutions, but the results did not match. Another dilution was not performed because no uncompromised vial was available. The higher concentration was reported. The lab has been asked to analyzed compromised vials when additional dilutions are needed to obtain results within the linear calibration range.

Executive Summary

Laboratory performance: All quality control criteria were met for this fraction.

Other factors affecting data quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1996), and the NFESC guidelines "Navy Installation Restoration Chemical Data Quality Manual" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

William Howard Engle

Project Chemist
Tetra Tech NUS, Inc.

Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech NUS, Inc.

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B – Results as reported by the laboratory
3. Appendix C – Supporting Documentation

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
D = MS/MSD Noncompliance
E = LCS/LCSD Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - Include ICSAB % R's
L = Instrument Calibration Range Exceedance
M = Sample Preservation
N = Internal Standard Noncompliance
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = Pest/PCB D% between columns for positive results
V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
W = EMPC result
X = Signal to noise response drop
Y = % Solid content is less than 30%

DATA QUALIFIER DEFINITIONS:

U - Value is a nondetected result as reported by the laboratory and should not be considered present.

J - Positive result is estimated as a result of a value below the CRQL or a technical noncompliance.

UJ - Nondetected result is considered to be estimated as a result of technical noncompliances.

APPENDIX A

Qualified Analytical Results

F7009

HOLDING TIME

08/21/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	OLFB59001	F7009-34	NORMAL	F7009	M	07/09/00	07/13/00	07/17/00	4	4	8
UG/L	OLFB59D001	F7009-29	NORMAL	F7009	M	07/09/00	07/13/00	07/17/00	4	4	8
UG/L	OLFB59D002	F7009-30	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW01GW	F7009-24	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW02GW	F7009-23	NORMAL	F7009	M	07/10/00	07/13/00	07/14/00	3	1	4
UG/L	OLFB59MW04GW	F7009-25	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW20GW	F7009-21	NORMAL	F7009	M	07/10/00	07/13/00	07/14/00	3	1	4
UG/L	OLFB59MW21GW	F7009-22	NORMAL	F7009	M	07/10/00	07/13/00	07/14/00	3	1	4
UG/L	OLFB59MW22GW	F7009-17	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	OLFB59MW23GW	F7009-18	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	OLFB59MW27GW	F7009-14	NORMAL	F7009	M	07/09/00	07/17/00	07/30/00	8	13	21
UG/L	OLFB59MW28GW	F7009-11	NORMAL	F7009	M	07/09/00	07/14/00	07/17/00	5	3	8
UG/L	OLFB59MW34GW	F7009-16	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	OLFB59MW47GW	F7009-12	NORMAL	F7009	M	07/09/00	07/14/00	07/17/00	5	3	8
UG/L	OLFB59MW52GW	F7009-28	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW60GW	F7009-15	NORMAL	F7009	M	07/09/00	07/17/00	07/30/00	8	13	21
UG/L	OLFB59MW63GW	F7009-13	NORMAL	F7009	M	07/09/00	07/17/00	07/30/00	8	13	21
UG/L	OLFB59MW67GW	F7009-26	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW68GW	F7009-27	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW69GW	F7009-19	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	16TB070900	F7009-42	NORMAL	F7009	OV	07/09/00	/ /	07/23/00	0	0	14
UG/L	20TB070800	F7009-36	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	59TB070900	F7009-31	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB16001	F7009-32	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	OLFB16MW03GW	F7009-40	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB16MW06GW	F7009-41	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB16MW08GW	F7009-39	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB16MW09GW	F7009-38	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB20001	F7009-33	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB20D002	F7009-35	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW02GW	F7009-4	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW11GW	F7009-7	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW12GW	F7009-1	NORMAL	F7009	OV	07/08/00	/ /	07/21/00	0	0	13
UG/L	OLFB20MW17GW	F7009-3	NORMAL	F7009	OV	07/08/00	/ /	07/21/00	0	0	13
UG/L	OLFB20MW18GW	F7009-5	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW19GW	F7009-37	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW24GW	F7009-6	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW25GW	F7009-9	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW26GW	F7009-8	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW30GW	F7009-10	NORMAL	F7009	OV	07/08/00	/ /	07/22/00	0	0	14
UG/L	OLFB20MW34GW	F7009-2	NORMAL	F7009	OV	07/08/00	/ /	07/21/00	0	0	13
UG/L	OLFB59001	F7009-34	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59D001	F7009-29	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59D002	F7009-30	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW01GW	F7009-24	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW02GW	F7009-23	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW04GW	F7009-25	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW20GW	F7009-21	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW21GW	F7009-22	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW22GW	F7009-17	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW23GW	F7009-18	NORMAL	F7009	OV	07/10/00	/ /	07/21/00	0	0	11

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	OLFB59MW27GW	F7009-14	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59MW28GW	F7009-11	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59MW34GW	F7009-16	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW47GW	F7009-12	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59MW52GW	F7009-28	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW60GW	F7009-15	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59MW63GW	F7009-13	NORMAL	F7009	OV	07/09/00	/ /	07/22/00	0	0	13
UG/L	OLFB59MW67GW	F7009-26	NORMAL	F7009	OV	07/10/00	/ /	07/24/00	0	0	14
UG/L	OLFB59MW68GW	F7009-27	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB59MW69GW	F7009-19	NORMAL	F7009	OV	07/10/00	/ /	07/23/00	0	0	13
UG/L	OLFB16001	F7009-32	NORMAL	F7009	PAH	07/09/00	07/13/00	07/22/00	4	9	13
UG/L	OLFB16MW03GW	F7009-40	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UG/L	OLFB16MW06GW	F7009-41	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UG/L	OLFB16MW08GW	F7009-39	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UG/L	OLFB16MW09GW	F7009-38	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UG/L	OLFB20001	F7009-33	NORMAL	F7009	PAH	07/09/00	07/13/00	07/22/00	4	9	13
UG/L	OLFB20D002	F7009-35	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UG/L	OLFB20MW02GW	F7009-4	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UG/L	OLFB20MW11GW	F7009-7	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UG/L	OLFB20MW12GW	F7009-1	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UG/L	OLFB20MW17GW	F7009-3	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UG/L	OLFB20MW18GW	F7009-5	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UG/L	OLFB20MW19GW	F7009-37	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UG/L	OLFB20MW24GW	F7009-6	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UG/L	OLFB20MW25GW	F7009-9	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UG/L	OLFB20MW26GW	F7009-8	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UG/L	OLFB20MW30GW	F7009-10	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	OLFB20MW34GW	F7009-2	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
MG/L	OLFB16001	F7009-32	NORMAL	F7009	TPH	07/09/00	07/14/00	07/20/00	5	6	11
MG/L	OLFB16MW03GW	F7009-40	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB16MW06GW	F7009-41	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB16MW08GW	F7009-39	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB16MW09GW	F7009-38	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB20001	F7009-33	NORMAL	F7009	TPH	07/09/00	07/14/00	07/20/00	5	6	11
MG/L	OLFB20D002	F7009-35	NORMAL	F7009	TPH	07/08/00	07/14/00	07/20/00	6	6	12
MG/L	OLFB20MW02GW	F7009-4	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW11GW	F7009-7	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW12GW	F7009-1	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW17GW	F7009-3	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW18GW	F7009-5	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW19GW	F7009-37	NORMAL	F7009	TPH	07/08/00	07/14/00	07/20/00	6	6	12
MG/L	OLFB20MW24GW	F7009-6	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW25GW	F7009-9	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW26GW	F7009-8	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW30GW	F7009-10	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW34GW	F7009-2	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB59001	F7009-34	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB59D001	F7009-29	NORMAL	F7009	TPH	07/09/00	07/14/00	07/20/00	5	6	11
MG/L	OLFB59D002	F7009-30	NORMAL	F7009	TPH	07/10/00	07/14/00	07/21/00	4	7	11
MG/L	OLFB59MW01GW	F7009-24	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW02GW	F7009-23	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW04GW	F7009-25	NORMAL	F7009	TPH	07/10/00	07/14/00	07/21/00	4	7	11
MG/L	OLFB59MW20GW	F7009-21	NORMAL	F7009	TPH	07/10/00	07/13/00	07/17/00	3	4	7
MG/L	OLFB59MW21GW	F7009-22	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
MG/L	OLFB59MW22GW	F7009-17	NORMAL	F7009	TPH	07/10/00	07/13/00	07/17/00	3	4	7
MG/L	OLFB59MW23GW	F7009-18	NORMAL	F7009	TPH	07/10/00	07/13/00	07/15/00	3	2	5
MG/L	OLFB59MW27GW	F7009-14	NORMAL	F7009	TPH	07/09/00	07/13/00	07/14/00	4	1	5
MG/L	OLFB59MW28GW	F7009-11	NORMAL	F7009	TPH	07/09/00	07/13/00	07/14/00	4	1	5
MG/L	OLFB59MW34GW	F7009-16	NORMAL	F7009	TPH	07/10/00	07/13/00	07/15/00	3	2	5
MG/L	OLFB59MW47GW	F7009-12	NORMAL	F7009	TPH	07/09/00	07/13/00	07/17/00	4	4	8
MG/L	OLFB59MW52GW	F7009-28	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW60GW	F7009-15	NORMAL	F7009	TPH	07/09/00	07/13/00	07/15/00	4	2	6
MG/L	OLFB59MW63GW	F7009-13	NORMAL	F7009	TPH	07/09/00	07/13/00	07/14/00	4	1	5
MG/L	OLFB59MW67GW	F7009-26	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW68GW	F7009-27	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW69GW	F7009-19	NORMAL	F7009	TPH	07/10/00	07/13/00	07/15/00	3	2	5

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20001			OLFB20D002			OLFB20MW02GW			OLFB20MW11GW		
SAMPLE DATE:	07/09/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-33			F7009-35			F7009-4			F7009-7		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	1	U		4.3			1	U		1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	3	U		17.2			3	U		3	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW12GW			OLFB20MW17GW			OLFB20MW18GW			OLFB20MW19GW		
SAMPLE DATE:	07/08/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-1			F7009-3			F7009-5			F7009-37		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	3	U		3	U		3	U		3	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW24GW			OLFB20MW25GW			OLFB20MW26GW			OLFB20MW30GW		
SAMPLE DATE:	07/08/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-6			F7009-9			F7009-8			F7009-10		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	1	U		4.2			0.64	J	P	1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	3	U		17.5			3	U		3	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW34GW	OLFB59001	OLFB59D001	OLFB59D002
SAMPLE DATE:	07/08/00	07/09/00	07/09/00	07/10/00
LABORATORY ID:	F7009-2	F7009-34	F7009-29	F7009-30
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	UG/L	UG/L	UG/L	UG/L
FIELD DUPLICATE OF:			OLFB59MW60GW	OLFB59MW23GW

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
BENZENE	1	U		1	U		1	U		214		
ETHYLBENZENE	1	U		1	U		1	U		177		
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		9.2	J	P
TOLUENE	1	U		1	U		1	U		1590		
XYLENES, TOTAL	3	U		3	U		3	U		1030		

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB16MW09GW			OLFB20001			OLFB20D002			OLFB20MW02GW		
SAMPLE DATE:	07/09/00			07/09/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-38			F7009-33			F7009-35			F7009-4		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		2.2	U		86.1			6		
2-METHYLNAPHTHALENE	2.2	U		2.2	U		115			7		
ACENAPHTHENE	2.2	U		2.2	U		8.4	U		2.2	U	
ACENAPHTHYLENE	2.2	U		2.2	U		8.4	U		2.2	U	
ANTHRACENE	2.2	U		2.2	U		8.4	U		2.2	U	
BENZO(A)ANTHRACENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(A)PYRENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(B)FLUORANTHENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(K)FLUORANTHENE	0.22	U		0.22	U		0.84	U		0.22	U	
CHRYSENE	2.2	U		2.2	U		8.4	U		4.4	U	
DIBENZO(A,H)ANTHRACENE	0.22	U		0.22	U		0.84	U		0.22	U	
FLUORANTHENE	2.2	U		2.2	U		8.4	U		2.2	U	
FLUORENE	2.2	U		2.2	U		8.4	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.22	U		0.22	U		0.84	U		0.22	U	
NAPHTHALENE	2.2	U		2.2	U		40.5			3		
PHENANTHRENE	2.2	U		2.2	U		8.4	U		2.2	U	
PYRENE	2.2	U		2.2	U		8.4	U		2.2	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW11GW			OLFB20MW12GW			OLFB20MW17GW			OLFB20MW18GW		
SAMPLE DATE:	07/08/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-7			F7009-1			F7009-3			F7009-5		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		3.5			2.2	U		2.2	U	
2-METHYLNAPHTHALENE	2.2	U		5.4			2.2	U		2.2	U	
ACENAPHTHENE	2.2	U		8.6	U		2.2	U		2.2	U	
ACENAPHTHYLENE	2.2	U		2.2	U		2.2	U		2.2	U	
ANTHRACENE	2.2	U		8.6	U		2.2	U		2.2	U	
BENZO(A)ANTHRACENE	0.22	U		0.22	U		0.22	U		0.22	U	
BENZO(A)PYRENE	0.22	U		0.22	U		0.22	U		0.22	U	
BENZO(B)FLUORANTHENE	0.22	U		0.22	U		0.22	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.22	U		0.22	U		0.22	U		0.22	U	
BENZO(K)FLUORANTHENE	0.22	U		0.22	U		0.22	U		0.22	U	
CHRYSENE	2.2	U		2.2	U		4.4	U		4.4	U	
DIBENZO(A,H)ANTHRACENE	0.22	U		0.22	U		0.22	U		0.22	U	
FLUORANTHENE	2.2	U		8.6	U		2.2	U		2.2	U	
FLUORENE	2.2	U		8.6	U		2.2	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.22	U		0.22	U		0.22	U		0.22	U	
NAPHTHALENE	2.2	U		2.2	U		2.2	U		2.2	U	
PHENANTHRENE	2.2	U		8.6	U		2.2	U		2.2	U	
PYRENE	2.2	U		2.2	U		2.2	U		2.2	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW19GW			OLFB20MW24GW			OLFB20MW25GW			OLFB20MW26GW		
SAMPLE DATE:	07/08/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-37			F7009-6			F7009-9			F7009-8		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		1.9	J	P	94.6			35.1		
2-METHYLNAPHTHALENE	2.2	U		2	J	P	127			42.9		
ACENAPHTHENE	2.2	U		2.2	U		8.2	U		8.2	U	
ACENAPHTHYLENE	2.2	U		2.2	U		8.2	U		8.2	U	
ANTHRACENE	2.2	U		2.2	U		8.2	U		8.2	U	
BENZO(A)ANTHRACENE	0.22	U		0.22	U		0.2	U		0.2	U	
BENZO(A)PYRENE	0.22	U		0.22	U		0.2	U		0.2	U	
BENZO(B)FLUORANTHENE	0.22	U		0.22	U		0.2	U		0.2	U	
BENZO(G,H,I)PERYLENE	0.22	U		0.22	U		0.2	U		0.2	U	
BENZO(K)FLUORANTHENE	0.22	U		0.22	U		0.2	U		0.2	U	
CHRYSENE	2.2	U		2.2	U		4	U		4	U	
DIBENZO(A,H)ANTHRACENE	0.22	U		0.22	U		0.2	U		0.2	U	
FLUORANTHENE	2.2	U		2.2	U		8.2	U		8.2	U	
FLUORENE	2.2	U		2.2	U		8.2	U		8.2	U	
INDENO(1,2,3-CD)PYRENE	0.22	U		0.22	U		0.2	U		0.2	U	
NAPHTHALENE	2.2	U		2.2	U		42.9			10.6		
PHENANTHRENE	2.2	U		2.2	U		8.2	U		8.2	U	
PYRENE	2.2	U		2.2	U		8.2	U		8.2	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW30GW	OLFB20MW34GW		
SAMPLE DATE:	07/08/00	07/08/00	/ /	/ /
LABORATORY ID:	F7009-10	F7009-2		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	0.0 %	0.0 %	100.0 %	100.0 %
UNITS:	UG/L	UG/L		
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		2.2	U							
2-METHYLNAPHTHALENE	2.2	U		2.2	U							
ACENAPHTHENE	2.2	U		2.2	U							
ACENAPHTHYLENE	2.2	U		2.2	U							
ANTHRACENE	2.2	U		2.2	U							
BENZO(A)ANTHRACENE	0.22	U		0.22	U							
BENZO(A)PYRENE	0.22	U		0.22	U							
BENZO(B)FLUORANTHENE	0.22	U		0.22	U							
BENZO(G,H,I)PERYLENE	0.22	U		0.22	U							
BENZO(K)FLUORANTHENE	0.22	U		0.22	U							
CHRYSENE	2.2	U		2.2	U							
DIBENZO(A,H)ANTHRACENE	0.22	U		0.22	U							
FLUORANTHENE	2.2	U		2.2	U							
FLUORENE	2.2	U		2.2	U							
INDENO(1,2,3-CD)PYRENE	0.22	U		0.22	U							
NAPHTHALENE	2.2	U		2.2	U							
PHENANTHRENE	2.2	U		2.2	U							
PYRENE	2.2	U		2.2	U							

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB16MW09GW			OLFB20001			OLFB20D002			OLFB20MW02GW		
SAMPLE DATE:	07/09/00			07/09/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-38			F7009-33			F7009-35			F7009-4		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.28	U		0.28	U		2.32			1.14		

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW11GW			OLFB20MW12GW			OLFB20MW17GW			OLFB20MW18GW		
SAMPLE DATE:	07/08/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-7			F7009-1			F7009-3			F7009-5		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.28	U		1.78			3.56			1.04		

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW19GW			OLFB20MW24GW			OLFB20MW25GW			OLFB20MW26GW		
SAMPLE DATE:	07/08/00			07/08/00			07/08/00			07/08/00		
LABORATORY ID:	F7009-37			F7009-6			F7009-9			F7009-8		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.28	U		0.769			2.88			9.35		

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F7009

SAMPLE NUMBER:	OLFB20MW30GW			OLFB20MW34GW			OLFB59001			OLFB59D001		
SAMPLE DATE:	07/08/00			07/08/00			07/09/00			07/09/00		
LABORATORY ID:	F7009-10			F7009-2			F7009-34			F7009-29		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:										OLFB59MW60GW		
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.51			0.28	U		0.25	U		0.28	U	

Report of Analysis

Client Sample ID:	20TB070800		
Lab Sample ID:	F7009-36	**Date Sampled:**	07/08/00
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016546.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		69-125%
98-08-8	aaa-Trifluorotoluene	92%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20001		
Lab Sample ID:	F7009-33	**Date Sampled:**	07/09/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016554.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		69-125%
98-08-8	aaa-Trifluorotoluene	97%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D002		
Lab Sample ID:	F7009-35	Date Sampled:	07/08/00
Matrix:	AQ - Ground Water	Date Received:	07/11/00
Method:	SW846 8021B	Percent Solids:	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	CD016545.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	4.3	1.0	ug/l	
1330-20-7	Xylenes (total)	17.2	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		69-125%
98-08-8	aaa-Trifluorotoluene	103%		72-125%

(a) All hits confirmed by dual column analysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW02GW		
Lab Sample ID:	F7009-4	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016528.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	79%		69-125%
98-08-8	aaa-Trifluorotoluene	82%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW11GW		
Lab Sample ID:	F7009-7	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016531.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		69-125%
98-08-8	aaa-Trifluorotoluene	92%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW12GW		
Lab Sample ID:	F7009-1	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016525.D	1	07/21/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		69-125%
98-08-8	aaa-Trifluorotoluene	86%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW17GW		
Lab Sample ID:	F7009-3	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016527.D	1	07/21/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		69-125%
98-08-8	aaa-Trifluorotoluene	93%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW18GW		
Lab Sample ID:	F7009-5	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016529.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		69-125%
98-08-8	aaa-Trifluorotoluene	95%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW19GW		
Lab Sample ID:	F7009-37	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016547.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		69-125%
98-08-8	aaa-Trifluorotoluene	95%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW24GW		
Lab Sample ID:	F7009-6	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016530.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		69-125%
98-08-8	aaa-Trifluorotoluene	86%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW25GW		
Lab Sample ID:	F7009-9	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	CD016534.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	4.2	1.0	ug/l	
1330-20-7	Xylenes (total)	17.5	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		69-125%
98-08-8	aaa-Trifluorotoluene	97%		72-125%

(a) All hits confirmed by dual column analysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW26GW		
Lab Sample ID:	F7009-8	Date Sampled:	07/08/00
Matrix:	AQ - Ground Water	Date Received:	07/11/00
Method:	SW846 8021B	Percent Solids:	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	CD016533.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	0.64	1.0	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		69-125%
98-08-8	aaa-Trifluorotoluene	90%		72-125%

(a) All hits confirmed by dual column analysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW30GW		
Lab Sample ID:	F7009-10	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016536.D	1	07/22/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	79%		69-125%
98-08-8	aaa-Trifluorotoluene	80%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW34GW		
Lab Sample ID:	F7009-2	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016526.D	1	07/21/00	RAW	n/a	n/a	GCD585
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		69-125%
98-08-8	aaa-Trifluorotoluene	91%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20001		
Lab Sample ID:	F7009-33	**Date Sampled:**	07/09/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003185.D	1	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		29-133%
92-94-4	p-Terphenyl	94%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D002		
Lab Sample ID:	F7009-35	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003186.D	4	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	8.4	ug/l	
208-96-8	Acenaphthylene	ND	8.4	ug/l	
120-12-7	Anthracene	ND	8.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.84	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.84	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.84	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.84	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.84	ug/l	
218-01-9	Chrysene	ND	8.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.84	ug/l	
206-44-0	Fluoranthene	ND	8.4	ug/l	
86-73-7	Fluorene	ND	8.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.84	ug/l	
91-20-3	Naphthalene	40.5	8.4	ug/l	
90-12-0	1-Methylnaphthalene	86.1	8.4	ug/l	
91-57-6	2-Methylnaphthalene	115	8.4	ug/l	
85-01-8	Phenanthrene	ND	8.4	ug/l	
129-00-0	Pyrene	ND	8.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	103%		29-133%
92-94-4	p-Terphenyl	87%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW02GW		
Lab Sample ID:	F7009-4	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003200.D	1	07/24/00	CCJ	07/13/00	OP1825	GAA105
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene [a]	ND	4.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	3.0	2.2	ug/l	
90-12-0	1-Methylnaphthalene	6.0	2.2	ug/l	
91-57-6	2-Methylnaphthalene	7.0	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		29-133%
92-94-4	p-Terphenyl	90%		33-133%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW11GW		
Lab Sample ID:	F7009-7	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003179.D	1	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	58%		29-133%
92-94-4	p-Terphenyl	88%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW12GW		
Lab Sample ID:	F7009-1	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003198.D	1	07/24/00	CCJ	07/13/00	OP1825	GAA105
Run #2	AA003173.D	4	07/22/00	CCJ	07/13/00	OP1825	GAA104

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	8.6	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND [a]	8.6	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND [a]	8.6	ug/l	
86-73-7	Fluorene	ND [a]	8.6	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	3.5	2.2	ug/l	
91-57-6	2-Methylnaphthalene	5.4	2.2	ug/l	
85-01-8	Phenanthrene	ND [a]	8.6	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%	78%	29-133%
92-94-4	p-Terphenyl	91%	88%	33-133%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW17GW		
Lab Sample ID:	F7009-3	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003199.D	1	07/24/00	CCJ	07/13/00	OP1825	GAA105
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene [a]	ND	4.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		29-133%
92-94-4	p-Terphenyl	94%		33-133%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW18GW		
Lab Sample ID:	F7009-5	Date Sampled:	07/08/00
Matrix:	AQ - Ground Water	Date Received:	07/11/00
Method:	EPA 8310	Percent Solids:	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003201.D	1	07/24/00	CCJ	07/13/00	OP1825	GAA105
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene [a]	ND	4.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	69%		29-133%
92-94-4	p-Terphenyl	84%		33-133%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW19GW		
Lab Sample ID:	F7009-37	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003187.D	1	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		29-133%
92-94-4	p-Terphenyl	97%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW24GW		
Lab Sample ID:	F7009-6	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003202.D	1	07/24/00	CCJ	07/13/00	OP1825	GAA105
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	1.9	2.2	ug/l	J
91-57-6	2-Methylnaphthalene	2.0	2.2	ug/l	J
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71% [a]		29-133%
92-94-4	p-Terphenyl	85% [a]		33-133%

(a) Surrogate recoveries corrected for double spike.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW25GW		
Lab Sample ID:	F7009-9	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003182.D	1	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2	AA003204.D	4	07/24/00	CCJ	07/13/00	OP1825	GAA105

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	8.2	ug/l	
208-96-8	Acenaphthylene	ND [a]	8.2	ug/l	
120-12-7	Anthracene	ND [a]	8.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene [b]	ND	4.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND [a]	8.2	ug/l	
86-73-7	Fluorene	ND [a]	8.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	42.9 [a]	8.2	ug/l	
90-12-0	1-Methylnaphthalene	94.6 [a]	8.2	ug/l	
91-57-6	2-Methylnaphthalene	127 [a]	8.2	ug/l	
85-01-8	Phenanthrene	ND [a]	8.2	ug/l	
129-00-0	Pyrene	ND [a]	8.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%	77%	29-133%
92-94-4	p-Terphenyl	89%	85%	33-133%

(a) Result is from Run# 2
(b) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW26GW		
Lab Sample ID:	F7009-8	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003203.D	1	07/24/00	CCJ	07/13/00	OP1825	GAA105
Run #2	AA003180.D	4	07/22/00	CCJ	07/13/00	OP1825	GAA104

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	8.2	ug/l	
208-96-8	Acenaphthylene	ND [a]	8.2	ug/l	
120-12-7	Anthracene	ND [a]	8.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene [b]	ND	4.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND [a]	8.2	ug/l	
86-73-7	Fluorene	ND [a]	8.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	10.6 [a]	8.2	ug/l	
90-12-0	1-Methylnaphthalene	35.1 [a]	8.2	ug/l	
91-57-6	2-Methylnaphthalene	42.9 [a]	8.2	ug/l	
85-01-8	Phenanthrene	ND [a]	8.2	ug/l	
129-00-0	Pyrene	ND [a]	8.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%	87%	29-133%
92-94-4	p-Terphenyl	90%	85%	33-133%

(a) Result is from Run# 2
(b) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW30GW		
Lab Sample ID:	F7009-10	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003183.D	1	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		29-133%
92-94-4	p-Terphenyl	82%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW34GW		
Lab Sample ID:	F7009-2	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003174.D	1	07/22/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	61%		29-133%
92-94-4	p-Terphenyl	92%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20001		
Lab Sample ID:	F7009-33	**Date Sampled:**	07/09/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09602.D	1	07/20/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D002		
Lab Sample ID:	F7009-35	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09590.D	2	07/20/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2.32	0.52	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW02GW		
Lab Sample ID:	F7009-4	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09489.D	2	07/17/00	CCJ	07/13/00	OP1819	GOP411
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.14	0.58	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW11GW		
Lab Sample ID:	F7009-7	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09466.D	1	07/14/00	CCJ	07/13/00	OP1819	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW12GW		
Lab Sample ID:	F7009-1	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09460.D	1	07/14/00	CCJ	07/13/00	OP1819	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.78	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW17GW		
Lab Sample ID:	F7009-3	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09462.D	4	07/14/00	CCJ	07/13/00	OP1819	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	3.56	1.1	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW18GW		
Lab Sample ID:	F7009-5	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09490.D	1	07/17/00	CCJ	07/13/00	OP1819	GOP411
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.04	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW19GW		
Lab Sample ID:	F7009-37	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09583.D	1	07/20/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW24GW		
Lab Sample ID:	F7009-6	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09465.D	1	07/14/00	CCJ	07/13/00	OP1819	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.769	0.32	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW25GW		
Lab Sample ID:	F7009-9	Date Sampled:	07/08/00
Matrix:	AQ - Ground Water	Date Received:	07/11/00
Method:	FLORIDA-PRO	Percent Solids:	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09492.D	4	07/17/00	CCJ	07/13/00	OP1819	GOP411
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2.88	1.1	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW26GW		
Lab Sample ID:	F7009-8	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09491.D	8	07/17/00	CCJ	07/13/00	OP1819	GOP411
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	9.35	2.2	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW30GW		
Lab Sample ID:	F7009-10	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09493.D	1	07/17/00	CCJ	07/13/00	OP1819	GOP411
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.510	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW34GW		
Lab Sample ID:	F7009-2	**Date Sampled:**	07/08/00
Matrix:	AQ - Ground Water	**Date Received:**	07/11/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09461.D	1	07/14/00	CCJ	07/13/00	OP1819	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Tetra Tech NUS, Inc. **Internal Correspondence**

TO: Mr. Gerald Walker **DATE:** July 11, 2000

FROM: William Howard Engle **CC:** File

SUBJECT: Organic Data Validation – VOC, TRPH, and PAH
CTO112 – NAS Pensacola
SDG F6675

SAMPLES: 12/Soil

OLFB20SB010406	OLFB20D001
OLFB20SB011214	OLFB59SB011012
OLFB20SB020406	OLFB59D001
OLFB20SB021214	OLFB59SB012022
OLFB20SB030810	OLFB59SB020507
OLFB20SB031012	OLFB59SB020709

3/Aqueous

OLFB20RB01
OLFB59RB01
Trip Blank

OVERVIEW

The sample set for CTO112, SDG F6675; Naval Air Station Pensacola, Pensacola, Florida consists of twelve (12) soil environmental samples, one (1) trip blank, and two (2) rinse blanks. Two duplicate pairs were analyzed for this SDG (OLFB20SB031012/OLFB20D001 and OLFB59SB011012/OLFB59D001). All environmental samples, rinsate blanks, and the trip blank were analyzed for volatile organics (VOC). All environmental samples and the rinsate blanks were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), and Polycyclic Aromatic Hydrocarbons (PAH).

The samples were collected by Tetra Tech NUS on June 1, 2000 and analyzed by Accutest Southeast Laboratory. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW-846 Method 8260B (VOC), 8310 (PAH), and FL-PRO (TRPH) analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

* Data Completeness
* Holding Times
* Initial/continuing calibrations
* Laboratory method/field quality control blank results

The symbol (*) indicates that all quality control criteria were met for this parameter. Supporting documentation is presented in Appendix C. Qualified analytical results are presented in Appendix A. The original laboratory data is contained in Appendix B.

Volatile Fraction

The MS/MSD analysis for the aqueous samples contained percent recoveries (%R) for chloromethane and dichlorodifluoromethane outside of the quality control limits. No action was taken.

The LCS analysis for the aqueous samples contained %R for 2-chloro-ethyl-vinyl ether outside the quality control limit. No action was taken.

%R for surrogate, Toluene-d8, was outside of the quality control limit in sample OLFB59SB020709. No action was taken due to matrix interference.

TRPH Fraction

The MS/MSD analysis for soils contained %R outside of the quality control limits. No action was taken due to matrix interference.

Polycyclic Aromatic Hydrocarbon Fraction

The MS/MSD analysis for aqueous samples contained %R for acenaphthylene outside of the quality control limits. No action was taken.

Sample OLFB20SB031012 contained a positive result for benzo(a)pyrene above the Soil Cleanup Target Level listed in Chapter 62-777, F.A.C.

	Reported Concentration	Target Level
benzo(a)pyrene	108 ug/kg	100 ug/kg

Executive Summary

Laboratory performance: Several MS/MSD analyses contained %R outside of the quality control limits. No action was taken.

Other factors affecting data quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October, 1999), and the NFESC guidelines "Navy IRCDQM" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

William Howard Engle

Project Chemist
Tetra Tech NUS, Inc.

Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech NUS, Inc.

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B – Results as reported by the laboratory
3. Appendix C – Supporting Documentation

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
D = MS/MSD Noncompliance
E = LCS/LCSD Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995
K = ICP Interference - include ICSAB % R's
L = Instrument Calibration Range Exceedance
M = Sample Preservation
N = Internal Standard Noncompliance
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = Pest/PCB D% between columns for positive results
V = Non-linear calibrations, tuning r < 0.995 (correlation coefficient)
W = EMPC result
X = Signal to noise response drop
Y = % Solid content is less than 30%

APPENDIX A

Qualified Analytical Results

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20RB01			OLFB59RB01			TRIP BLANK					
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			/ /		
LABORATORY ID:	F6675-13			F6675-14			F6675-15					
QC_TYPE:	NORMAL			NORMAL			NORMAL					
% SOLIDS:	0.0 %			0.0 %			0.0 %			100.0 %		
UNITS:	UG/L			UG/L			UG/L					
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	1	U		1	U		1	U				
1,1,2,2-TETRACHLOROETHANE	1	U		1	U		1	U				
1,1,2-TRICHLOROETHANE	1	U		1	U		1	U				
1,1-DICHLOROETHANE	1	U		1	U		1	U				
1,1-DICHLOROETHENE	1	U		1	U		1	U				
1,2-DIBROMOETHANE	1	U		1	U		1	U				
1,2-DICHLOROBENZENE	1	U		1	U		1	U				
1,2-DICHLOROETHANE	1	U		1	U		1	U				
1,2-DICHLOROPROPANE	1	U		1	U		1	U				
1,3-DICHLOROBENZENE	1	U		1	U		1	U				
1,4-DICHLOROBENZENE	1	U		1	U		1	U				
2-CHLOROETHYL VINYL ETHER	1	U		1	U		1	U				
BENZENE	1	U		1	U		1	U				
BROMODICHLOROMETHANE	1	U		1	U		1	U				
BROMOFORM	1	U		1	U		1	U				
BROMOMETHANE	1	U		1	U		1	U				
CARBON TETRACHLORIDE	1	U		1	U		1	U				
CHLOROBENZENE	1	U		1	U		1	U				
CHLOROETHANE	1	U		1	U		1	U				
CHLOROFORM	1	U		1	U		1	U				
CHLOROMETHANE	1	U		1	U		1	U				
CIS-1,2-DICHLOROETHENE	1	U		1	U		1	U				
CIS-1,3-DICHLOROPROPENE	1	U		1	U		1	U				
DIBROMOCHLOROMETHANE	1	U		1	U		1	U				
DICHLORODIFLUOROMETHANE	1	U		1	U		1	U				
ETHYLBENZENE	1	U		1	U		1	U				
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U				
METHYLENE CHLORIDE	5	U		5	U		5	U				
TETRACHLOROETHENE	1	U		1	U		1	U				
TOLUENE	2			2			1	U				
TRANS-1,2-DICHLOROETHENE	1	U		1	U		1	U				
TRANS-1,3-DICHLOROPROPENE	1	U		1	U		1	U				
TRICHLOROETHENE	1	U		1	U		1	U				
TRICHLOROFLUOROMETHANE	1	U		1	U		1	U				

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20RB01			OLFB59RB01			TRIP BLANK					
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			/ /		
LABORATORY ID:	F6675-13			F6675-14			F6675-15					
QC_TYPE:	NORMAL			NORMAL			NORMAL					
% SOLIDS:	0.0 %			0.0 %			0.0 %			100.0 %		
UNITS:	UG/L			UG/L			UG/L					
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
VINYL CHLORIDE	1	U		1	U		1	U				
XYLENES, TOTAL	3	U		3	U		3	U				

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20RB01			OLFB59RB01								
SAMPLE DATE:	06/01/00			06/01/00			/ /			/ /		
LABORATORY ID:	F6675-13			F6675-14								
QC_TYPE:	NORMAL			NORMAL								
% SOLIDS:	0.0 %			0.0 %			100.0 %			100.0 %		
UNITS:	MG/L			MG/L								
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.25	U		0.28	U							

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20RB01			OLFB59RB01								
SAMPLE DATE:	06/01/00			06/01/00			/ /			/ /		
LABORATORY ID:	F6675-13			F6675-14								
QC_TYPE:	NORMAL			NORMAL								
% SOLIDS:	0.0 %			0.0 %			100.0 %			100.0 %		
UNITS:	UG/L			UG/L								
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		2	U							
2-METHYLNAPHTHALENE	2.2	U		2	U							
ACENAPHTHENE	2.2	U		2	U							
ACENAPHTHYLENE	2.2	U		2	U							
ANTHRACENE	2.2	U		2	U							
BENZO(A)ANTHRACENE	0.22	U		0.2	U							
BENZO(A)PYRENE	0.22	U		0.2	U							
BENZO(B)FLUORANTHENE	0.22	U		0.2	U							
BENZO(G,H,I)PERYLENE	0.22	U		0.2	U							
BENZO(K)FLUORANTHENE	0.22	U		0.2	U							
CHRYSENE	2.2	U		2	U							
DIBENZO(A,H)ANTHRACENE	0.22	U		0.2	U							
FLUORANTHENE	2.2	U		2	U							
FLUORENE	2.2	U		2	U							
INDENO(1,2,3-CD)PYRENE	0.22	U		0.2	U							
NAPHTHALENE	2.2	U		2	U							
PHENANTHRENE	2.2	U		2	U							
PYRENE	2.2	U		2	U							

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20D001			OLFB20SB010406			OLFB20SB011214			OLFB20SB020406		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-7			F6675-1			F6675-2			F6675-3		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	96.1 %			98.6 %			98.4 %			95.7 %		
UNITS:	UG/KG			UG/KG			UG/KG			UG/KG		
FIELD DUPLICATE OF:	OLFB20SB031012											
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,1,2,2-TETRACHLOROETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,1,2-TRICHLOROETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,1-DICHLOROETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,1-DICHLOROETHENE	5.9	U		5.2	U		5.7	U		5.9	U	
1,2-DIBROMOETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,2-DICHLOROBENZENE	5.9	U		5.2	U		5.7	U		5.9	U	
1,2-DICHLOROETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,2-DICHLOROPROPANE	5.9	U		5.2	U		5.7	U		5.9	U	
1,3-DICHLOROBENZENE	5.9	U		5.2	U		5.7	U		5.9	U	
1,4-DICHLOROBENZENE	5.9	U		5.2	U		5.7	U		5.9	U	
2-CHLOROETHYL VINYL ETHER	12	U		10	U		11	U		12	U	
BENZENE	5.9	U		5.2	U		5.7	U		5.9	U	
BROMODICHLOROMETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
BROMOFORM	5.9	U		5.2	U		5.7	U		5.9	U	
BROMOMETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
CARBON TETRACHLORIDE	5.9	U		5.2	U		5.7	U		5.9	U	
CHLOROBENZENE	5.9	U		5.2	U		5.7	U		5.9	U	
CHLOROETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
CHLOROFORM	5.9	U		5.2	U		5.7	U		5.9	U	
CHLOROMETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
CIS-1,2-DICHLOROETHENE	5.9	U		5.2	U		5.7	U		5.9	U	
CIS-1,3-DICHLOROPROPENE	5.9	U		5.2	U		5.7	U		5.9	U	
DIBROMOCHLOROMETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
DICHLORODIFLUOROMETHANE	5.9	U		5.2	U		5.7	U		5.9	U	
ETHYLBENZENE	5.9	U		5.2	U		5.7	U		5.9	U	
METHYL TERT-BUTYL ETHER	5.9	U		5.2	U		5.7	U		5.9	U	
METHYLENE CHLORIDE	12	U		10	U		11	U		12	U	
TETRACHLOROETHENE	5.9	U		5.2	U		5.7	U		5.9	U	
TOLUENE	1.2	J	P	5.2	U		1.4	J	P	1.5	J	P
TRANS-1,2-DICHLOROETHENE	5.9	U		5.2	U		5.7	U		5.9	U	
TRANS-1,3-DICHLOROPROPENE	5.9	U		5.2	U		5.7	U		5.9	U	
TRICHLOROETHENE	5.9	U		5.2	U		5.7	U		5.9	U	
TRICHLOROFLUOROMETHANE	5.9	U		5.2	U		5.7	U		5.9	U	

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20D001			OLFB20SB010406			OLFB20SB011214			OLFB20SB020406		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-7			F6675-1			F6675-2			F6675-3		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	96.1 %			98.6 %			98.4 %			95.7 %		
UNITS:	UG/KG			UG/KG			UG/KG			UG/KG		
FIELD DUPLICATE OF:	OLFB20SB031012											
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
VINYL CHLORIDE	5.9	U		5.2	U		5.7	U		5.9	U	
XYLENES, TOTAL	18	U		16	U		17	U		18	U	

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20SB021214			OLFB20SB030810			OLFB20SB031012			OLFB59D001		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-4			F6675-5			F6675-6			F6675-9		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	95.0 %			96.6 %			95.6 %			91.3 %		
UNITS:	UG/KG			UG/KG			UG/KG			UG/KG		
FIELD DUPLICATE OF:										OLFB59SB011012		
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	5.8	U		6	U		5.7	U		5	U	
1,1,2,2-TETRACHLOROETHANE	5.8	U		6	U		5.7	U		5	U	
1,1,2-TRICHLOROETHANE	5.8	U		6	U		5.7	U		5	U	
1,1-DICHLOROETHANE	5.8	U		6	U		5.7	U		5	U	
1,1-DICHLOROETHENE	5.8	U		6	U		5.7	U		5	U	
1,2-DIBROMOETHANE	5.8	U		6	U		5.7	U		5	U	
1,2-DICHLOROBENZENE	5.8	U		6	U		5.7	U		5	U	
1,2-DICHLOROETHANE	5.8	U		6	U		5.7	U		5	U	
1,2-DICHLOROPROPANE	5.8	U		6	U		5.7	U		5	U	
1,3-DICHLOROBENZENE	5.8	U		6	U		5.7	U		5	U	
1,4-DICHLOROBENZENE	5.8	U		6	U		5.7	U		5	U	
2-CHLOROETHYL VINYL ETHER	12	U		12	U		11	U		9.9	U	
BENZENE	5.8	U		6	U		5.7	U		5	U	
BROMODICHLOROMETHANE	5.8	U		6	U		5.7	U		5	U	
BROMOFORM	5.8	U		6	U		5.7	U		5	U	
BROMOMETHANE	5.8	U		6	U		5.7	U		5	U	
CARBON TETRACHLORIDE	5.8	U		6	U		5.7	U		5	U	
CHLOROBENZENE	5.8	U		6	U		5.7	U		5	U	
CHLOROETHANE	5.8	U		6	U		5.7	U		5	U	
CHLOROFORM	5.8	U		6	U		5.7	U		5	U	
CHLOROMETHANE	5.8	U		6	U		5.7	U		5	U	
CIS-1,2-DICHLOROETHENE	5.8	U		6	U		5.7	U		5	U	
CIS-1,3-DICHLOROPROPENE	5.8	U		6	U		5.7	U		5	U	
DIBROMOCHLOROMETHANE	5.8	U		6	U		5.7	U		5	U	
DICHLORODIFLUOROMETHANE	5.8	U		6	U		5.7	U		5	U	
ETHYLBENZENE	5.8	U		6	U		5.7	U		5	U	
METHYL TERT-BUTYL ETHER	5.8	U		6	U		5.7	U		5	U	
METHYLENE CHLORIDE	12	U		12	U		11	U		9.9	U	
TETRACHLOROETHENE	5.8	U		6	U		5.7	U		5	U	
TOLUENE	5.8	U		1.2	J	P	5.7	U		1	J	P
TRANS-1,2-DICHLOROETHENE	5.8	U		6	U		5.7	U		5	U	
TRANS-1,3-DICHLOROPROPENE	5.8	U		6	U		5.7	U		5	U	
TRICHLOROETHENE	5.8	U		6	U		5.7	U		5	U	
TRICHLOROFLUOROMETHANE	5.8	U		6	U		5.7	U		5	U	

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20SB021214			OLFB20SB030810			OLFB20SB031012			OLFB59D001		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-4			F6675-5			F6675-6			F6675-9		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	95.0 %			96.6 %			95.6 %			91.3 %		
UNITS:	UG/KG			UG/KG			UG/KG			UG/KG		
FIELD DUPLICATE OF:										OLFB59SB011012		
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
VINYL CHLORIDE	5.8	U		6	U		5.7	U		5	U	
XYLENES, TOTAL	18	U		18	U		17	U		15	U	

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20D001			OLFB20SB010406			OLFB20SB011214			OLFB20SB020406		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-7			F6675-1			F6675-2			F6675-3		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	96.1 %			98.6 %			98.4 %			95.7 %		
UNITS:	UG/KG			UG/KG			UG/KG			UG/KG		
FIELD DUPLICATE OF:	OLFB20SB031012											
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	350	U		340	U		340	U		350	U	
2-METHYLNAPHTHALENE	350	U		340	U		340	U		350	U	
ACENAPHTHENE	350	U		340	U		340	U		350	U	
ACENAPHTHYLENE	690	U		680	U		680	U		700	U	
ANTHRACENE	350	U		340	U		340	U		350	U	
BENZO(A)ANTHRACENE	69	U		68	U		68	U		70	U	
BENZO(A)PYRENE	69	U		68	U		68	U		70	U	
BENZO(B)FLUORANTHENE	69	U		68	U		68	U		70	U	
BENZO(G,H,I)PERYLENE	69	U		68	U		68	U		70	U	
BENZO(K)FLUORANTHENE	69	U		68	U		68	U		70	U	
CHRYSENE	350	U		340	U		340	U		350	U	
DIBENZO(A,H)ANTHRACENE	69	U		68	U		68	U		70	U	
FLUORANTHENE	350	U		340	U		340	U		350	U	
FLUORENE	350	U		340	U		340	U		350	U	
INDENO(1,2,3-CD)PYRENE	69	U		68	U		68	U		70	U	
NAPHTHALENE	350	U		340	U		340	U		350	U	
PHENANTHRENE	350	U		340	U		340	U		350	U	
PYRENE	350	U		340	U		340	U		350	U	

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20SB021214			OLFB20SB030810			OLFB20SB031012			OLFB59D001		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-4			F6675-5			F6675-6			F6675-9		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	95.0 %			96.6 %			95.6 %			91.3 %		
UNITS:	UG/KG			UG/KG			UG/KG			UG/KG		
FIELD DUPLICATE OF:										OLFB59SB011012		
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	350	U		350	U		350	U		370	U	
2-METHYLNAPHTHALENE	350	U		350	U		350	U		370	U	
ACENAPHTHENE	350	U		350	U		350	U		370	U	
ACENAPHTHYLENE	700	U		690	U		700	U		730	U	
ANTHRACENE	350	U		350	U		350	U		370	U	
BENZO(A)ANTHRACENE	70	U		69	U		123			73	U	
BENZO(A)PYRENE	70	U		69	U		108			73	U	
BENZO(B)FLUORANTHENE	70	U		69	U		136			73	U	
BENZO(G,H,I)PERYLENE	70	U		69	U		91			73	U	
BENZO(K)FLUORANTHENE	70	U		69	U		78.2			73	U	
CHRYSENE	350	U		350	U		136	J	P	370	U	
DIBENZO(A,H)ANTHRACENE	70	U		69	U		70	U		73	U	
FLUORANTHENE	350	U		350	U		288	J	P	370	U	
FLUORENE	350	U		350	U		350	U		370	U	
INDENO(1,2,3-CD)PYRENE	70	U		69	U		142			73	U	
NAPHTHALENE	350	U		350	U		350	U		370	U	
PHENANTHRENE	350	U		350	U		120	J	P	370	U	
PYRENE	350	U		350	U		186	J	P	370	U	

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20D001	OLFB20SB010406	OLFB20SB011214	OLFB20SB020406
SAMPLE DATE:	06/01/00	06/01/00	06/01/00	06/01/00
LABORATORY ID:	F6675-7	F6675-1	F6675-2	F6675-3
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	96.1 %	98.6 %	98.4 %	95.7 %
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG
FIELD DUPLICATE OF:	OLFB20SB031012			

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	20.6			70.3			47.2			12.5		

CTO112-NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F6675

SAMPLE NUMBER:	OLFB20SB021214			OLFB20SB030810			OLFB20SB031012			OLFB59D001		
SAMPLE DATE:	06/01/00			06/01/00			06/01/00			06/01/00		
LABORATORY ID:	F6675-4			F6675-5			F6675-6			F6675-9		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	95.0 %			96.6 %			95.6 %			91.3 %		
UNITS:	MG/KG			MG/KG			MG/KG			MG/KG		
FIELD DUPLICATE OF:										OLFB59SB011012		
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	8.8	U		16.6			22			9.1	U	

APPENDIX B

Results as Reported by the Laboratory

Report of Analysis

Client Sample ID:	OLFB20SB010406		
Lab Sample ID:	F6675-1	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	98.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007928.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB010406		
Lab Sample ID:	F6675-1	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	98.6
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB011214		
Lab Sample ID:	F6675-2	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	98.4
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007929.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.7	ug/kg	
75-27-4	Bromodichloromethane	ND	5.7	ug/kg	
75-25-2	Bromoform	ND	5.7	ug/kg	
108-90-7	Chlorobenzene	ND	5.7	ug/kg	
75-00-3	Chloroethane	ND	5.7	ug/kg	
67-66-3	Chloroform	ND	5.7	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.7	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.7	ug/kg	
124-48-1	Dibromochloromethane	ND	5.7	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.7	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.7	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.7	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.7	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.7	ug/kg	
100-41-4	Ethylbenzene	ND	5.7	ug/kg	
74-83-9	Methyl bromide	ND	5.7	ug/kg	
74-87-3	Methyl chloride	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.7	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.7	ug/kg	
108-88-3	Toluene	1.4	5.7	ug/kg	J
79-01-6	Trichloroethylene	ND	5.7	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.7	ug/kg	
75-01-4	Vinyl chloride	ND	5.7	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB011214		
Lab Sample ID:	F6675-2	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	98.4
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		71-122%
2037-26-5	Toluene-D8	106%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB020406		
Lab Sample ID:	F6675-3	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	95.7
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007930.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	ug/kg	
75-25-2	Bromoform	ND	5.9	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	ug/kg	
75-00-3	Chloroethane	ND	5.9	ug/kg	
67-66-3	Chloroform	ND	5.9	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.9	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.9	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.9	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.9	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	ug/kg	
100-41-4	Ethylbenzene	ND	5.9	ug/kg	
74-83-9	Methyl bromide	ND	5.9	ug/kg	
74-87-3	Methyl chloride	ND	5.9	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.9	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.9	ug/kg	
108-88-3	Toluene	1.5	5.9	ug/kg	J
79-01-6	Trichloroethylene	ND	5.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.9	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB020406		
Lab Sample ID:	F6675-3	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	95.7
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB021214		
Lab Sample ID:	F6675-4	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	95.0
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007931.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	ug/kg	
75-25-2	Bromoform	ND	5.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	5.8	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.8	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.8	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	ug/kg	
74-83-9	Methyl bromide	ND	5.8	ug/kg	
74-87-3	Methyl chloride	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
79-01-6	Trichloroethylene	ND	5.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB021214		
Lab Sample ID:	F6675-4	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	95.0
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		71-122%
2037-26-5	Toluene-D8	104%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	104%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB030810		
Lab Sample ID:	F6675-5	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	96.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007932.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.0	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	ug/kg	
75-25-2	Bromoform	ND	6.0	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	ug/kg	
75-00-3	Chloroethane	ND	6.0	ug/kg	
67-66-3	Chloroform	ND	6.0	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.0	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	ug/kg	
100-41-4	Ethylbenzene	ND	6.0	ug/kg	
74-83-9	Methyl bromide	ND	6.0	ug/kg	
74-87-3	Methyl chloride	ND	6.0	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.0	ug/kg	
108-88-3	Toluene	1.2	6.0	ug/kg	J
79-01-6	Trichloroethylene	ND	6.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.0	ug/kg	
75-01-4	Vinyl chloride	ND	6.0	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB030810		
Lab Sample ID:	F6675-5	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	96.6
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	117%		53-158%
17060-07-0	1,2-Dichloroethane-D4	107%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB031012		
Lab Sample ID:	F6675-6	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	95.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007933.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.7	ug/kg	
75-27-4	Bromodichloromethane	ND	5.7	ug/kg	
75-25-2	Bromoform	ND	5.7	ug/kg	
108-90-7	Chlorobenzene	ND	5.7	ug/kg	
75-00-3	Chloroethane	ND	5.7	ug/kg	
67-66-3	Chloroform	ND	5.7	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.7	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.7	ug/kg	
124-48-1	Dibromochloromethane	ND	5.7	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.7	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.7	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.7	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.7	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.7	ug/kg	
100-41-4	Ethylbenzene	ND	5.7	ug/kg	
74-83-9	Methyl bromide	ND	5.7	ug/kg	
74-87-3	Methyl chloride	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.7	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.7	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
79-01-6	Trichloroethylene	ND	5.7	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.7	ug/kg	
75-01-4	Vinyl chloride	ND	5.7	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB031012		
Lab Sample ID:	F6675-6	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	95.6
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	106%		73-128%
460-00-4	4-Bromofluorobenzene	103%		53-158%
17060-07-0	1,2-Dichloroethane-D4	103%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6675-7	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	96.1
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007934.D	1	06/13/00	RAW	n/a	n/a	VH94
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	ug/kg	
75-25-2	Bromoform	ND	5.9	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	ug/kg	
75-00-3	Chloroethane	ND	5.9	ug/kg	
67-66-3	Chloroform	ND	5.9	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.9	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.9	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.9	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.9	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	ug/kg	
100-41-4	Ethylbenzene	ND	5.9	ug/kg	
74-83-9	Methyl bromide	ND	5.9	ug/kg	
74-87-3	Methyl chloride	ND	5.9	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.9	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.9	ug/kg	
108-88-3	Toluene	1.2	5.9	ug/kg	J
79-01-6	Trichloroethylene	ND	5.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.9	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6675-7	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	SW846 8260B	**Percent Solids:**	96.1
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	115%		53-158%
17060-07-0	1,2-Dichloroethane-D4	107%		71-122%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20RB01		
Lab Sample ID:	F6675-13	**Date Sampled:**	06/01/00
Matrix:	AQ - Field Blank Water	**Date Received:**	06/02/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR002983.D	1	06/07/00	JG	n/a	n/a	GQR79
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	2.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20RB01		
Lab Sample ID:	F6675-13	**Date Sampled:**	06/01/00
Matrix:	AQ - Field Blank Water	**Date Received:**	06/02/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	97%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	98%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	96%		65-125%
98-08-8	aaa-Trifluorotoluene	97%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F6675-15	**Date Sampled:**	06/01/00
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/02/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	QR002985.D	1	06/07/00	JG	n/a	n/a	GQR79
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F6675-15	**Date Sampled:**	06/01/00
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/02/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	97%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	99%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	96%		65-125%
98-08-8	aaa-Trifluorotoluene	96%		72-125%

(a) Sample vial(s) contained significant headspace; reported results are considered minimum values.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB010406		
Lab Sample ID:	F6675-1	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	98.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08653.D	2	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	70.3	17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	104%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB011214		
Lab Sample ID:	F6675-2	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	98.4
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08632.D	1	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	47.2	8.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	105%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB020406		
Lab Sample ID:	F6675-3	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	95.7
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08633.D	1	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	12.5	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	102%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB021214		
Lab Sample ID:	F6675-4	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	95.0
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08634.D	1	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	105%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB030810		
Lab Sample ID:	F6675-5	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	96.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08636.D	1	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	16.6	8.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB031012		
Lab Sample ID:	F6675-6	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	95.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08637.D	1	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	22.0	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	97%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6675-7	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	96.1
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08638.D	1	06/13/00	CCJ	06/09/00	OP1661	GOP390
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	20.6 ✓	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	108%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20RB01		
Lab Sample ID:	F6675-13	**Date Sampled:**	06/01/00
Matrix:	AQ - Field Blank Water	**Date Received:**	06/02/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08595.D	1	06/08/00	CCJ	06/07/00	OP1632	GOP389
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	108%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB010406		
Lab Sample ID:	F6675-1	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	98.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001875.D	1	06/19/00	NF	06/15/00	OP1686	GAA77
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	340	ug/kg	
208-96-8	Acenaphthylene	ND	680	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	68	ug/kg	
50-32-8	Benzo(a)pyrene	ND	68	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	68	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	68	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	68	ug/kg	
206-44-0	Fluoranthene	ND	340	ug/kg	
86-73-7	Fluorene	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
90-12-0	1-Methylnaphthalene	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
85-01-8	Phenanthrene	ND	340	ug/kg	
129-00-0	Pyrene	ND	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		35-135%
92-94-4	p-Terphenyl	88%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB011214		
Lab Sample ID:	F6675-2	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	98.4
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001876.D	1	06/19/00	NF	06/15/00	OP1686	GAA77
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	340	ug/kg	
208-96-8	Acenaphthylene	ND	680	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	68	ug/kg	
50-32-8	Benzo(a)pyrene	ND	68	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	68	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	68	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	68	ug/kg	
206-44-0	Fluoranthene	ND	340	ug/kg	
86-73-7	Fluorene	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
90-12-0	1-Methylnaphthalene	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
85-01-8	Phenanthrene	ND	340	ug/kg	
129-00-0	Pyrene	ND	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		35-135%
92-94-4	p-Terphenyl	90%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB020406		
Lab Sample ID:	F6675-3	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	95.7
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001877.D	1	06/19/00	NF	06/15/00	OP1686	GAA77
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	70	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		35-135%
92-94-4	p-Terphenyl	94%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB021214		
Lab Sample ID:	F6675-4	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	95.0
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001878.D	1	06/19/00	NF	06/15/00	OP1686	GAA77
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	70	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		35-135%
92-94-4	p-Terphenyl	94%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB030810		
Lab Sample ID:	F6675-5	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	96.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001879.D	1	06/19/00	NF	06/15/00	OP1686	GAA77
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	690	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	69	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	69	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	69	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	69	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	69	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		35-135%
92-94-4	p-Terphenyl	94%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20SB031012		
Lab Sample ID:	F6675-6	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	95.6
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001899.D	1	06/20/00	CCJ	06/15/00	OP1686	GAA78
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	123	70	ug/kg	
50-32-8	Benzo(a)pyrene	108	70	ug/kg	
205-99-2	Benzo(b)fluoranthene	136	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	91.0	70	ug/kg	
207-08-9	Benzo(k)fluoranthene	78.2	70	ug/kg	
218-01-9	Chrysene	136	350	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	
206-44-0	Fluoranthene	288	350	ug/kg	J
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	142	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	120	350	ug/kg	J
129-00-0	Pyrene	186	350	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		35-135%
92-94-4	p-Terphenyl	99%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6675-7	**Date Sampled:**	06/01/00
Matrix:	SO - Soil	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	96.1
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001881.D	1	06/19/00	NF	06/15/00	OP1686	GAA77
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	690	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	69	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	69	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	69	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	69	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	69	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		35-135%
92-94-4	p-Terphenyl	92%		50-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20RB01		
Lab Sample ID:	F6675-13	**Date Sampled:**	06/01/00
Matrix:	AQ - Field Blank Water	**Date Received:**	06/02/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA001774.D	1	06/16/00	NF	06/08/00	OP1657	GAA75
Run #2 [b]	AA001795.D	1	06/16/00	NF	06/08/00	OP1657	GAA75

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	37%	38%	45-130%
92-94-4	p-Terphenyl	49%	49%	50-150%

(a) Surrogates outside of control limits, all values should be considered estimated.
(b) Insufficient sample hold time for re-extraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Tetra Tech NUS, Inc. **Internal Correspondence**

TO: **Mr. Gerald Walker** **DATE: August 24, 2000**

FROM: **William Howard Engle** **CC: File**

SUBJECT: **Organic Data Validation – VOA, PAH, and TRPH**
CTO112 – NAS Pensacola
SDG F6994

SAMPLES: **18/Aqueous**

19TB070600	**20TB070600**	**NAPS19D002**
NASP19MW11GW	**NASP19MW12GW**	**NASP19MW18GW**
NASP19MW19GW	**NASP19MW20GW**	**NASP19MW21GW**
NASP19MW22GW	**OLFB20D001**	**OLFB20MW03W**
OLFB20MW04W	**OLFB20MW056W**	**OLFB20MW06W**
OLFB20MW07W	**OLFB20MW106W**	**OLFB20MW35W**

OVERVIEW

The sample set for CTO112, SDG F6994; Naval Air Station Pensacola, Pensacola, Florida consists of sixteen (16) aqueous environmental samples, two (2) trip blanks. Two duplicate pairs were also included in this SDG, NASP19MW11GW / NASP19D002 and OLFB20MW05GW / OLFB20D001. The environmental samples, with the exception of samples 19TB070600 and 20TB070600, were analyzed for volatile organics (VOCs), polycyclic aromatic hydrocarbons (PAHs), and total residual petroleum hydrocarbons (TRPHs). Samples 19TB070600 and 20TB070600 were analyzed for VOCs only.

The samples were collected by Tetra Tech NUS on July 6-7, 2000 and analyzed by Accutest Southeast Laboratory. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW-846 Method 8021B (VOCs), SW-846 Method 8310C (PAHs), and FL-PRO (TRPHs) analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

- Data Completeness
- * Holding Times
- * Laboratory method/field quality control blank results
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Supporting documentation is presented in Appendix C. Qualified analytical results are presented in Appendix A. The original laboratory data is contained in Appendix B.

Volatile Fraction

Several LCS %Rs for dichlorodifluoromethane, 1,1-dichlorethene, chloromethane, bromomethane, trichlorofluoromethane, and 2-chloroethylvinyl ether were below the lower quality control limits. The MS/MSD %Rs for these compounds were acceptable, except for 2-chloroethyvinyl ether. 2-chloroethylvinyl ether was qualified as estimated "J" in the corresponding samples.

Polycyclic Aromatic Fraction

All quality control criteria were met for this fraction.

Total Residual Petroleum Fraction

TRPH was qualified estimated "J" in samples OLFB20MW056GW and OLFB20D001 due to field duplicate imprecision.

Field Duplicate Summary

Analyte	NASP19MW11GW (ug/L)	NASP19D002 (ug/L)	%D
Benzene	352	508	36
Ethylbenzene	653	749	14
Toluene	3440	5130	39
Total xylenes	5290	6250	17
1-methylnaphthalene	41.8	42.4	1.4
2-methylnaphthalene	55.6	56.1	1.0
naphthalene	135	135	0
TRPH	19.5 mg/L	21 mg/L	7.4

	OLFB20MW056GW (ug/l)	OLFB20D001 (ug/L)	%D
Ethylbenzene	27.5	21.2	26
Total xylenes	62.5	47.3	28
1-methylnaphthlene	126	140	10
2-methylnaphthalene	166	202	20
naphthalene	153	176	14
TRPH	4.55 mg/L	7.75 mg/L	52

Notes

Accutest did not include VOC data for sample OLFB20D001 in the SDG. An e-mail was sent on August 18, 2000 to the Lab Director, Harry Behzadi, requesting the VOC data for this sample be re-sent. The VOC data for sample OLFB20D001 was received on August 24, 2000.

Executive Summary

Laboratory performance: Several LCS %Rs for several compounds were below the lower quality control limits. 2-chloroethylvinyl ether was qualified estimated "J". TRPH was qualified estimated "J" in two samples due to field duplicate imprecision.

Other factors affecting data quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1996), and the NFESC guidelines "Navy Installation Restoration Chemical Data Quality Manual" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

William Howard Engle

Project Chemist
Tetra Tech NUS, Inc.

Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech NUS, Inc.

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B – Results as reported by the laboratory
3. Appendix C – Supporting Documentation

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
D = MS/MSD Noncompliance
E = LCS/LCSD Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - include ICSAB % R's
L = Instrument Calibration Range Exceedance
M = Sample Preservation
N = Internal Standard Noncompliance
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = Pest/PCB D% between columns for positive results
V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
W = EMPC result
X = Signal to noise response drop
Y = % Solid content is less than 30%

DATA QUALIFIER DEFINITIONS:

U	-	Value is a nondetected result as reported by the laboratory and should not be considered present.
J	-	Positive result is estimated as a result of a value below the CRQL or a technical noncompliance.
UJ	-	Nondetected result is considered to be estimated as a result of technical noncompliances.

APPENDIX A

Qualified Analytical Results

F6994

HOLDING TIME
08/08/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	19TB070600	F6994-17	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	20TB070600	F6994-18	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19D002	F6994-16	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW11GW	F6994-11	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW12GW	F6994-14	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW18GW	F6994-12	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW19GW	F6994-13	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW20GW	F6994-15	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW21GW	F6994-9	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	NASP19MW22GW	F6994-10	NORMAL	F6994	OV	07/06/00	/ /	07/17/00	0	0	11
UG/L	OLFB20D001	F6994-8	NORMAL	F6994	OV	07/07/00	/ /	07/15/00	0	0	8
UG/L	OLFB20MW03W	F6994-5	NORMAL	F6994	OV	07/07/00	/ /	07/15/00	0	0	8
UG/L	OLFB20MW04W	F6994-4	NORMAL	F6994	OV	07/07/00	/ /	07/17/00	0	0	10
UG/L	OLFB20MW056W	F6994-2	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	OLFB20MW06W	F6994-7	NORMAL	F6994	OV	07/07/00	/ /	07/17/00	0	0	10
UG/L	OLFB20MW07W	F6994-6	NORMAL	F6994	OV	07/07/00	/ /	07/17/00	0	0	10
UG/L	OLFB20MW106W	F6994-1	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	OLFB20MW35W	F6994-3	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	NASP19D002	F6994-16	NORMAL	F6994	PAH	07/07/00	07/12/00	07/14/00	5	2	7
UG/L	NASP19MW11GW	F6994-11	NORMAL	F6994	PAH	07/07/00	07/12/00	07/14/00	5	2	7
UG/L	NASP19MW12GW	F6994-14	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW18GW	F6994-12	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW19GW	F6994-13	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW20GW	F6994-15	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW21GW	F6994-9	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	NASP19MW22GW	F6994-10	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7
UG/L	OLFB20D001	F6994-8	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW03W	F6994-5	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW04W	F6994-4	NORMAL	F6994	PAH	07/07/00	07/12/00	07/14/00	5	2	7
UG/L	OLFB20MW056W	F6994-2	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7
UG/L	OLFB20MW06W	F6994-7	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW07W	F6994-6	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW106W	F6994-1	NORMAL	F6994	PAH	07/06/00	07/12/00	07/14/00	6	2	8
UG/L	OLFB20MW35W	F6994-3	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7
MG/L	NASP19D002	F6994-16	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW11GW	F6994-11	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW12GW	F6994-14	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW18GW	F6994-12	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW19GW	F6994-13	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW20GW	F6994-15	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW21GW	F6994-9	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	NASP19MW22GW	F6994-10	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	OLFB20D001	F6994-8	NORMAL	F6994	TPH	07/07/00	07/12/00	07/14/00	5	2	7
MG/L	OLFB20MW03W	F6994-5	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	OLFB20MW04W	F6994-4	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	OLFB20MW056W	F6994-2	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	OLFB20MW06W	F6994-7	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	OLFB20MW07W	F6994-6	NORMAL	F6994	TPH	07/07/00	07/12/00	07/14/00	5	2	7
MG/L	OLFB20MW106W	F6994-1	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	OLFB20MW35W	F6994-3	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6

F6994

HOLDING TIME
08/08/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	19TB070600	F6994-17	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	20TB070600	F6994-18	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19D002	F6994-16	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW11GW	F6994-11	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW12GW	F6994-14	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW18GW	F6994-12	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW19GW	F6994-13	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW20GW	F6994-15	NORMAL	F6994	OV	07/07/00	/ /	07/18/00	0	0	11
UG/L	NASP19MW21GW	F6994-9	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	NASP19MW22GW	F6994-10	NORMAL	F6994	OV	07/06/00	/ /	07/17/00	0	0	11
UG/L	OLFB20D001	F6994-8	NORMAL	F6994	OV	07/07/00	/ /	07/15/00	0	0	8
UG/L	OLFB20MW03W	F6994-5	NORMAL	F6994	OV	07/07/00	/ /	07/15/00	0	0	8
UG/L	OLFB20MW04W	F6994-4	NORMAL	F6994	OV	07/07/00	/ /	07/17/00	0	0	10
UG/L	OLFB20MW056W	F6994-2	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	OLFB20MW06W	F6994-7	NORMAL	F6994	OV	07/07/00	/ /	07/17/00	0	0	10
UG/L	OLFB20MW07W	F6994-6	NORMAL	F6994	OV	07/07/00	/ /	07/17/00	0	0	10
UG/L	OLFB20MW106W	F6994-1	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	OLFB20MW35W	F6994-3	NORMAL	F6994	OV	07/06/00	/ /	07/15/00	0	0	9
UG/L	NASP19D002	F6994-16	NORMAL	F6994	PAH	07/07/00	07/12/00	07/14/00	5	2	7
UG/L	NASP19MW11GW	F6994-11	NORMAL	F6994	PAH	07/07/00	07/12/00	07/14/00	5	2	7
UG/L	NASP19MW12GW	F6994-14	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW18GW	F6994-12	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW19GW	F6994-13	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW20GW	F6994-15	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	NASP19MW21GW	F6994-9	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	NASP19MW22GW	F6994-10	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7
UG/L	OLFB20D001	F6994-8	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW03W	F6994-5	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW04W	F6994-4	NORMAL	F6994	PAH	07/07/00	07/12/00	07/14/00	5	2	7
UG/L	OLFB20MW056W	F6994-2	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7
UG/L	OLFB20MW06W	F6994-7	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW07W	F6994-6	NORMAL	F6994	PAH	07/07/00	07/12/00	07/13/00	5	1	6
UG/L	OLFB20MW106W	F6994-1	NORMAL	F6994	PAH	07/06/00	07/12/00	07/14/00	6	2	8
UG/L	OLFB20MW35W	F6994-3	NORMAL	F6994	PAH	07/06/00	07/12/00	07/13/00	6	1	7
MG/L	NASP19D002	F6994-16	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW11GW	F6994-11	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW12GW	F6994-14	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW18GW	F6994-12	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW19GW	F6994-13	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW20GW	F6994-15	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	NASP19MW21GW	F6994-9	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	NASP19MW22GW	F6994-10	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	OLFB20D001	F6994-8	NORMAL	F6994	TPH	07/07/00	07/12/00	07/14/00	5	2	7
MG/L	OLFB20MW03W	F6994-5	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	OLFB20MW04W	F6994-4	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	OLFB20MW056W	F6994-2	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	OLFB20MW06W	F6994-7	NORMAL	F6994	TPH	07/07/00	07/12/00	07/13/00	5	1	6
MG/L	OLFB20MW07W	F6994-6	NORMAL	F6994	TPH	07/07/00	07/12/00	07/14/00	5	2	7
MG/L	OLFB20MW106W	F6994-1	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6
MG/L	OLFB20MW35W	F6994-3	NORMAL	F6994	TPH	07/06/00	07/10/00	07/12/00	4	2	6

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	NASP19MW21GW			NASP19MW22GW			OLFB20D001			OLFB20MW03W		
SAMPLE DATE:	07/06/00			07/06/00			07/07/00			07/07/00		
LABORATORY ID:	F6994-9			F6994-10			F6994-8			F6994-5		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	1	U		1	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE	1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE	1	U		1	U		1	U		1	U	
1,1-DICHLOROETHANE	1	U		1	U		1	U		1	U	
1,1-DICHLOROETHENE	1	U		1	U		1	U		1	U	
1,2-DIBROMOETHANE	1	U		1	U		1	U		1	U	
1,2-DICHLOROBENZENE	1	U		1	U		1	U		1	U	
1,2-DICHLOROETHANE	1	U		1	U		1	U		1	U	
1,2-DICHLOROPROPANE	1	U		1	U		1	U		1	U	
1,3-DICHLOROBENZENE	1	U		1	U		1	U		1	U	
1,4-DICHLOROBENZENE	1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER	1	UJ	E,D	1	U		1	U		1	UJ	E,D
BENZENE	1	U		1			1	U		1	U	
BROMODICHLOROMETHANE	1	U		1	U		1	U		1	U	
BROMOFORM	1	U		1	U		1	U		1	U	
BROMOMETHANE	1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE	1	U		1	U		1	U		1	U	
CHLOROBENZENE	1	U		1	U		1	U		1	U	
CHLOROETHANE	1	U		1	U		1	U		1	U	
CHLOROFORM	1	U		1	U		1	U		1	U	
CHLOROMETHANE	1	U		1	U		1	U		1	U	
CIS-1,2-DICHLOROETHENE	1	U		1	U		1	U		1	U	
CIS-1,3-DICHLOROPROPENE	1	U		1	U		1	U		1	U	
DIBROMOCHLOROMETHANE	1	U		1	U		1	U		1	U	
DICHLORODIFLUOROMETHANE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	1	U		1	U		21.2			1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
METHYLENE CHLORIDE	5	U		5	U		5	U		5	U	
TETRACHLOROETHENE	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
TRANS-1,2-DICHLOROETHENE	1	U		1	U		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE	1	U		1	U		1	U		1	U	
TRICHLOROETHENE	1	U		1	U		1	U		1	U	
TRICHLOROFLUOROMETHANE	1	U		1	U		1	U		1	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	NASP19MW21GW			NASP19MW22GW			OLFB20D001			OLFB20MW03W		
SAMPLE DATE:	07/06/00			07/06/00			07/07/00			07/07/00		
LABORATORY ID:	F6994-9			F6994-10			F6994-8			F6994-5		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
VINYL CHLORIDE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	3	U		4.8			47.3			3	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20MW04W			OLFB20MW056W			OLFB20MW06W			OLFB20MW07W		
SAMPLE DATE:	07/07/00			07/06/00			07/07/00			07/07/00		
LABORATORY ID:	F6994-4			F6994-2			F6994-7			F6994-6		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	1	U		1	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE	1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE	1	U		1	U		1	U		1	U	
1,1-DICHLOROETHANE	1	U		1	U		1	U		1	U	
1,1-DICHLOROETHENE	1	U		1	U		1	U		1	U	
1,2-DIBROMOETHANE	1	U		1	U		1	U		1	U	
1,2-DICHLOROBENZENE	1	U		1	U		1	U		1	U	
1,2-DICHLOROETHANE	1	U		1	U		1	U		1	U	
1,2-DICHLOROPROPANE	1	U		1	U		1	U		1	U	
1,3-DICHLOROBENZENE	1	U		1	U		1	U		1	U	
1,4-DICHLOROBENZENE	1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER	1	U		1	UJ	E,D	1	U		1	U	
BENZENE	1	U		1	U		1	U		1	U	
BROMODICHLOROMETHANE	1	U		1	U		1	U		1	U	
BROMOFORM	1	U		1	U		1	U		1	U	
BROMOMETHANE	1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE	1	U		1	U		1	U		1	U	
CHLOROBENZENE	1	U		1	U		1	U		1	U	
CHLOROETHANE	1	U		1	U		1	U		1	U	
CHLOROFORM	1	U		1	U		1	U		1	U	
CHLOROMETHANE	1	U		1	U		1	U		1	U	
CIS-1,2-DICHLOROETHENE	1	U		1	U		1	U		1	U	
CIS-1,3-DICHLOROPROPENE	1	U		1	U		1	U		1	U	
DIBROMOCHLOROMETHANE	1	U		1	U		1	U		1	U	
DICHLORODIFLUOROMETHANE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	24.6			27.5			1	U		1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
METHYLENE CHLORIDE	5	U		5	U		5	U		5	U	
TETRACHLOROETHENE	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
TRANS-1,2-DICHLOROETHENE	1	U		1	U		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE	1	U		1	U		1	U		1	U	
TRICHLOROETHENE	1	U		1	U		1	U		1	U	
TRICHLOROFLUOROMETHANE	1	U		1	U		1	U		1	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20MW04W			OLFB20MW056W			OLFB20MW06W			OLFB20MW07W		
SAMPLE DATE:	07/07/00			07/06/00			07/07/00			07/07/00		
LABORATORY ID:	F6994-4			F6994-2			F6994-7			F6994-6		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
VINYL CHLORIDE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	69.5			62.5			3	U		3	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20MW106W			OLFB20MW35W								
SAMPLE DATE:	07/06/00			07/06/00			/ /			/ /		
LABORATORY ID:	F6994-1			F6994-3								
QC_TYPE:	NORMAL			NORMAL								
% SOLIDS:	0.0 %			0.0 %			100.0 %			100.0 %		
UNITS:	UG/L			UG/L								
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	1	U		1	U							
1,1,2,2-TETRACHLOROETHANE	1	U		1	U							
1,1,2-TRICHLOROETHANE	1	U		1	U							
1,1-DICHLOROETHANE	1	U		1	U							
1,1-DICHLOROETHENE	1	U		1	U							
1,2-DIBROMOETHANE	1	U		1	U							
1,2-DICHLOROBENZENE	1	U		1	U							
1,2-DICHLOROETHANE	1	U		1	U							
1,2-DICHLOROPROPANE	1	U		1	U							
1,3-DICHLOROBENZENE	1	U		1	U							
1,4-DICHLOROBENZENE	1	U		1	U							
2-CHLOROETHYL VINYL ETHER	1	UJ	E,D	1	UJ	E,D						
BENZENE	1	U		1	U							
BROMODICHLOROMETHANE	1	U		1	U							
BROMOFORM	1	U		1	U							
BROMOMETHANE	1	U		1	U							
CARBON TETRACHLORIDE	1	U		1	U							
CHLOROBENZENE	1	U		1	U							
CHLOROETHANE	1	U		1	U							
CHLOROFORM	1	U		1	U							
CHLOROMETHANE	1	U		1	U							
CIS-1,2-DICHLOROETHENE	1	U		1	U							
CIS-1,3-DICHLOROPROPENE	1	U		1	U							
DIBROMOCHLOROMETHANE	1	U		1	U							
DICHLORODIFLUOROMETHANE	1	U		1	U							
ETHYLBENZENE	29.7			1	U							
METHYL TERT-BUTYL ETHER	1	U		1	U							
METHYLENE CHLORIDE	5	U		5	U							
TETRACHLOROETHENE	1	U		1	U							
TOLUENE	1	U		1	U							
TRANS-1,2-DICHLOROETHENE	1	U		1	U							
TRANS-1,3-DICHLOROPROPENE	1	U		1	U							
TRICHLOROETHENE	1	U		1	U							
TRICHLOROFLUOROMETHANE	1	U		1	U							

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20MW106W			OLFB20MW35W								
SAMPLE DATE:	07/06/00			07/06/00			/ /			/ /		
LABORATORY ID:	F6994-1			F6994-3								
QC_TYPE:	NORMAL			NORMAL								
% SOLIDS:	0.0 %			0.0 %			100.0 %			100.0 %		
UNITS:	UG/L			UG/L								
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
VINYL CHLORIDE	1	U		1	U							
XYLENES, TOTAL	116			3	U							

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20D001			OLFB20MW03W			OLFB20MW04W			OLFB20MW056W		
SAMPLE DATE:	07/07/00			07/07/00			07/07/00			07/06/00		
LABORATORY ID:	F6994-8			F6994-5			F6994-4			F6994-2		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	140			2	U		133			126		
2-METHYLNAPHTHALENE	202			2	U		186			166		
ACENAPHTHENE	17	U		2	U		17	U		8.4	U	
ACENAPHTHYLENE	17	U		2	U		17	U		8.4	U	
ANTHRACENE	8.4	U		2	U		4.2	U		8.4	U	
BENZO(A)ANTHRACENE	0.84	U		0.2	U		0.42	U		0.84	U	
BENZO(A)PYRENE	0.84	U		0.2	U		0.42	U		0.84	U	
BENZO(B)FLUORANTHENE	0.84	U		0.2	U		0.42	U		0.84	U	
BENZO(G,H,I)PERYLENE	0.84	U		0.2	U		0.42	U		0.84	U	
BENZO(K)FLUORANTHENE	0.84	U		0.2	U		0.42	U		0.84	U	
CHRYSENE	8.4	U		2	U		4.2	U		8.4	U	
DIBENZO(A,H)ANTHRACENE	0.84	U		0.2	U		0.42	U		0.84	U	
FLUORANTHENE	8.4	U		2	U		4.2	U		8.4	U	
FLUORENE	17	U		2	U		17	U		8.4	U	
INDENO(1,2,3-CD)PYRENE	0.84	U		0.2	U		0.42	U		0.84	U	
NAPHTHALENE	176			2	U		185			153		
PHENANTHRENE	17	U		2	U		17	U		8.4	U	
PYRENE	8.4	U		2	U		4.2	U		8.4	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20MW06W			OLFB20MW07W			OLFB20MW106W			OLFB20MW35W		
SAMPLE DATE:	07/07/00			07/07/00			07/06/00			07/06/00		
LABORATORY ID:	F6994-7			F6994-6			F6994-1			F6994-3		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	UG/L			UG/L			UG/L			UG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		2	U		160			2.2	U	
2-METHYLNAPHTHALENE	2.2	U		2	U		203			2.2	U	
ACENAPHTHENE	2.2	U		2	U		17	U		2.2	U	
ACENAPHTHYLENE	2.2	U		2	U		17	U		2.2	U	
ANTHRACENE	2.2	U		2	U		4.4	U		2.2	U	
BENZO(A)ANTHRACENE	0.22	U		0.2	U		0.44	U		0.22	U	
BENZO(A)PYRENE	0.22	U		0.2	U		0.44	U		0.22	U	
BENZO(B)FLUORANTHENE	0.22	U		0.2	U		0.44	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.22	U		0.2	U		0.44	U		0.22	U	
BENZO(K)FLUORANTHENE	0.22	U		0.2	U		0.44	U		0.22	U	
CHRYSENE	2.2	U		2	U		4.4	U		2.2	U	
DIBENZO(A,H)ANTHRACENE	0.22	U		0.2	U		0.44	U		0.22	U	
FLUORANTHENE	2.2	U		2	U		4.4	U		2.2	U	
FLUORENE	2.2	U		2	U		17	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.22	U		0.2	U		0.44	U		0.22	U	
NAPHTHALENE	2.2	U		2	U		132			2.2	U	
PHENANTHRENE	2.2	U		2	U		17	U		2.2	U	
PYRENE	2.2	U		2	U		4.4	U		2.2	U	

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20D001			OLFB20MW03W			OLFB20MW04W			OLFB20MW056W		
SAMPLE DATE:	07/07/00			07/07/00			07/07/00			07/06/00		
LABORATORY ID:	F6994-8			F6994-5			F6994-4			F6994-2		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TPH (C8-C40)	7.75	J	G	1.57			6.39			4.55	J	G

CTO112-NAS PENSACOLA
WATER DATA
Accutest, NJ
SDG: F6994

SAMPLE NUMBER:	OLFB20MW06W			OLFB20MW07W			OLFB20MW106W			OLFB20MW35W		
SAMPLE DATE:	07/07/00			07/07/00			07/06/00			07/06/00		
LABORATORY ID:	F6994-7			F6994-6			F6994-1			F6994-3		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:												
	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TPH (C8-C40)	0.328			0.72			6.05			0.28	U	

APPENDIX B

Results as Reported by the Laboratory

Report of Analysis

Client Sample ID:	20TB070600		
Lab Sample ID:	F6994-18	**Date Sampled:**	07/07/00
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003770.D	1	07/18/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	20TB070600		
Lab Sample ID:	F6994-18	**Date Sampled:**	07/07/00
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	114%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	100%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	104%		65-125%
98-08-8	aaa-Trifluorotoluene	99%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6994-8	Date Sampled:	07/07/00
Matrix:	AQ - Ground Water	Date Received:	07/08/00
Method:	SW846 8021B	Percent Solids:	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003745.D	1	07/15/00	CAS	n/a	n/a	GQR102
Run #2 [a]	QR003918.D	1	07/26/00	CAS	n/a	n/a	GQR102

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	21.2	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	47.3	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6994-8	Date Sampled:	07/07/00
Matrix:	AQ - Ground Water	Date Received:	07/08/00
Method:	SW846 8021B	Percent Solids:	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	66% [b]	74%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	99%	102%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	94%	102%	65-125%
98-08-8	aaa-Trifluorotoluene	116%	100%	72-125%

(a) Sample analyzed beyond hold time; reported results are considered minimum values.
(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW03W		
Lab Sample ID:	F6994-5	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003744.D	1	07/15/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW03W		
Lab Sample ID:	F6994-5	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	93%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	98%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	92%		65-125%
98-08-8	aaa-Trifluorotoluene	97%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW04W		
Lab Sample ID:	F6994-4	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003759.D	1	07/17/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	24.6	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	69.5	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW04W		
Lab Sample ID:	F6994-4	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	112%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	96%		65-125%
98-08-8	aaa-Trifluorotoluene	123%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW056W		
Lab Sample ID:	F6994-2	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	QR003729.D	1	07/15/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	27.5	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	62.5	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW056W		
Lab Sample ID:	F6994-2	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	75%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	98%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	90%		65-125%
98-08-8	aaa-Trifluorotoluene	125%		72-125%

(a) Confirmed by GC/MS

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW06W		
Lab Sample ID:	F6994-7	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003761.D	1	07/17/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW06W		
Lab Sample ID:	F6994-7	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	118%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	101%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	94%		65-125%
98-08-8	aaa-Trifluorotoluene	99%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW07W		
Lab Sample ID:	F6994-6	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003760.D	1	07/17/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW07W		
Lab Sample ID:	F6994-6	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	117%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	100%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	108%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW106W		
Lab Sample ID:	F6994-1	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003728.D	1	07/15/00	CAS	n/a	n/a	GQR102
Run #2	QR003741.D	1	07/15/00	CAS	n/a	n/a	GQR102

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	29.7	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	116	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW106W		
Lab Sample ID:	F6994-1	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	66% [a]	73%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	99%	99%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	91%	93%	65-125%
98-08-8	aaa-Trifluorotoluene	132% [a]	135%	72-125%

(a) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW35W		
Lab Sample ID:	F6994-3	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003730.D	1	07/15/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW35W		
Lab Sample ID:	F6994-3	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	103%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	97%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	92%		65-125%
98-08-8	aaa-Trifluorotoluene	98%		72-125%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6994-8	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002931.D	4	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2	AA002954.D	8	07/14/00	CCJ	07/12/00	OP1818	GAA98

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	17	ug/l	
208-96-8	Acenaphthylene	ND [a]	17	ug/l	
120-12-7	Anthracene	ND	8.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.84	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.84	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.84	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.84	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.84	ug/l	
218-01-9	Chrysene	ND	8.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.84	ug/l	
206-44-0	Fluoranthene	ND	8.4	ug/l	
86-73-7	Fluorene	ND [a]	17	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.84	ug/l	
91-20-3	Naphthalene	176 [a]	17	ug/l	
90-12-0	1-Methylnaphthalene	140 [a]	17	ug/l	
91-57-6	2-Methylnaphthalene	202 [a]	17	ug/l	
85-01-8	Phenanthrene	ND [a]	17	ug/l	
129-00-0	Pyrene	ND	8.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	123%	116%	29-133%
92-94-4	p-Terphenyl	90%	90%	33-133%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW03W		
Lab Sample ID:	F6994-5	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002928.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		29-133%
92-94-4	p-Terphenyl	86%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW04W		
Lab Sample ID:	F6994-4	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002953.D	2	07/14/00	CCJ	07/12/00	OP1818	GAA98
Run #2	AA002927.D	8	07/13/00	CCJ	07/12/00	OP1818	GAA97

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	17	ug/l	
208-96-8	Acenaphthylene	ND [a]	17	ug/l	
120-12-7	Anthracene	ND	4.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.42	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.42	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.42	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.42	ug/l	
218-01-9	Chrysene	ND	4.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.42	ug/l	
206-44-0	Fluoranthene	ND	4.2	ug/l	
86-73-7	Fluorene	ND [a]	17	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.42	ug/l	
91-20-3	Naphthalene	185 [a]	17	ug/l	
90-12-0	1-Methylnaphthalene	133 [a]	17	ug/l	
91-57-6	2-Methylnaphthalene	186 [a]	17	ug/l	
85-01-8	Phenanthrene	ND [a]	17	ug/l	
129-00-0	Pyrene	ND	4.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	124%	107%	29-133%
92-94-4	p-Terphenyl	99%	90%	33-133%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW056W		
Lab Sample ID:	F6994-2	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002925.D	4	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	8.4	ug/l	
208-96-8	Acenaphthylene	ND	8.4	ug/l	
120-12-7	Anthracene	ND	8.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.84	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.84	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.84	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.84	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.84	ug/l	
218-01-9	Chrysene	ND	8.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.84	ug/l	
206-44-0	Fluoranthene	ND	8.4	ug/l	
86-73-7	Fluorene	ND	8.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.84	ug/l	
91-20-3	Naphthalene	153	8.4	ug/l	
90-12-0	1-Methylnaphthalene	126	8.4	ug/l	
91-57-6	2-Methylnaphthalene	166	8.4	ug/l	
85-01-8	Phenanthrene	ND	8.4	ug/l	
129-00-0	Pyrene	ND	8.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	117%		29-133%
92-94-4	p-Terphenyl	81%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW06W		
Lab Sample ID:	F6994-7	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002930.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	63%		29-133%
92-94-4	p-Terphenyl	82%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW07W		
Lab Sample ID:	F6994-6	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002929.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		29-133%
92-94-4	p-Terphenyl	84%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW106W		
Lab Sample ID:	F6994-1	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002952.D	2	07/14/00	CCJ	07/12/00	OP1818	GAA98
Run #2	AA002924.D	8	07/13/00	CCJ	07/12/00	OP1818	GAA97

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	17	ug/l	
208-96-8	Acenaphthylene	ND [a]	17	ug/l	
120-12-7	Anthracene	ND	4.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.44	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.44	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.44	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.44	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.44	ug/l	
218-01-9	Chrysene	ND	4.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.44	ug/l	
206-44-0	Fluoranthene	ND	4.4	ug/l	
86-73-7	Fluorene	ND [a]	17	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.44	ug/l	
91-20-3	Naphthalene	132 [a]	17	ug/l	
90-12-0	1-Methylnaphthalene	160 [a]	17	ug/l	
91-57-6	2-Methylnaphthalene	203 [a]	17	ug/l	
85-01-8	Phenanthrene	ND [a]	17	ug/l	
129-00-0	Pyrene	ND	4.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	102%	103%	29-133%
92-94-4	p-Terphenyl	98%	92%	33-133%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW35W		
Lab Sample ID:	F6994-3	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002926.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	53%		29-133%
92-94-4	p-Terphenyl	90%		33-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20D001		
Lab Sample ID:	F6994-8	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09454.D	10	07/14/00	CCJ	07/12/00	OP1816	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	7.75	2.6	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW03W		
Lab Sample ID:	F6994-5	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09431.D	1	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.57	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	102%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW04W		
Lab Sample ID:	F6994-4	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09430.D	10	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	6.39	2.6	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW056W		
Lab Sample ID:	F6994-2	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09405.D	10	07/12/00	CCJ	07/10/00	OP1808	GOP408
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	4.55	2.6	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW06W		
Lab Sample ID:	F6994-7	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09433.D	1	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.328	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW07W		
Lab Sample ID:	F6994-6	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09453.D	1	07/14/00	CCJ	07/12/00	OP1816	GOP410
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.720	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW106W		
Lab Sample ID:	F6994-1	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09422.D	5	07/12/00	CCJ	07/10/00	OP1808	GOP408
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	6.05	1.4	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFB20MW35W		
Lab Sample ID:	F6994-3	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09406.D	1	07/12/00	CCJ	07/10/00	OP1808	GOP408
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ATTACHMENT F

SLUG TEST DATA

GROUNDWATER SEEPAGE VELOCITY CALCULATIONS

CALCULATION OF VERTICAL HYDRAULIC GRADIENT

Based On: Darcy Flow Equation

Reference: *Groundwater,* by Freeze and Cherry, pages 17, 71, and 72

EQUATION: $i = \Delta H / \Delta L = dh/dl$

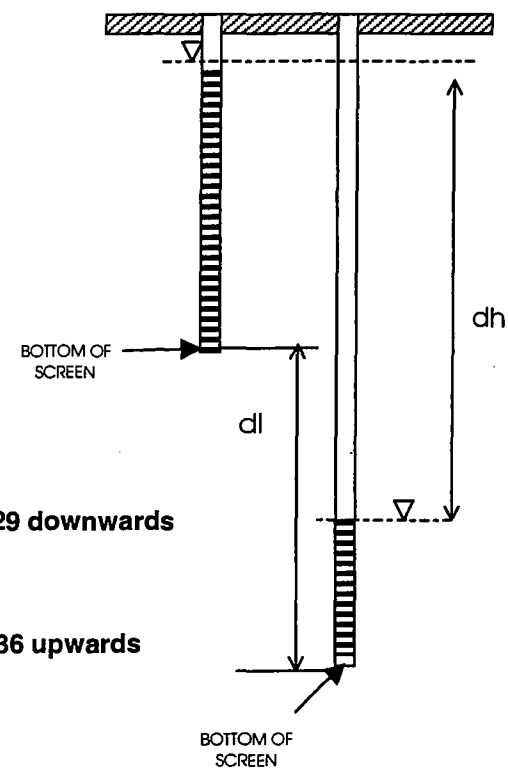
WHERE:

i = the hydraulic gradient

dh = the difference in hydraulic head

dl = the linear distance over which the change in head is observed, in this this case the distance between mid-points of the well screens.

NOT TO SCALE



CALCULATIONS - July 2000 DATA:

$$i_{MW-10/DMW-35} = \frac{10.36 - 10.31}{17.5} = \frac{0.05}{17.5} = \mathbf{0.0029\ downwards}$$

$$i_{MW-2/DMW-34} = \frac{|10.39 - 10.45|}{16.5} = \frac{0.06}{16.5} = \mathbf{0.0036\ upwards}$$

CALCULATION OF THE AVERAGE (ARITHMETIC MEAN) GRADIENT:

$$i_{av} = \frac{0.0029 + 0.0036}{2} = \underline{0.00325} = \underline{\mathbf{0.0032}}$$

Prepared By: _____ Checked By: _____

Date: _____ Date: _____

CALCULATION OF HORIZONTAL HYDRAULIC GRADIENT

Based On: Darcy Flow Equation

Reference: *Groundwater,* by Freeze and Cherry, pages 17, 71, and 72

Note: See Figures 5 and 6 for dh and dl values.

EQUATION: $i = \Delta H / \Delta L = dh/dl$

WHERE:

i = the hydraulic gradient

dh = the difference in hydraulic head

dl = the linear distance over which the change in head is observed

CALCULATIONS - JULY 2000 DATA:

$$i_{MW-18/MW-27} = \frac{10.33 - 10.09}{150} = \frac{0.24}{150} = 0.0016$$

$$i_{MW-4/MW-28} = \frac{10.38 - 10.04}{248} = \frac{0.34}{248} = 0.00137 \approx 0.0014$$

$$i_{MW-6/MW-30} = \frac{10.39 - 10.15}{227} = \frac{0.24}{227} = 0.001057 \approx 0.0011$$

CALCULATION OF THE AVERAGE (ARITHMETIC MEAN) GRADIENT:

$$i_{av} = \frac{.0016 + .0014 + .0011}{3} = \underline{0.0013667} = \underline{\mathbf{0.0014}}$$

Prepared By: _____ Checked By: _____

Date: _____ Date: _____

CALCULATION OF GROUNDWATER SEEPAGE VELOCITY

Based On: Darcy Flow Equation

References: *GROUNDWATER,* by Freeze and Cherry and *APPLIED HYDROGEOLOGY* by C. W. Fetter

Note: See accompanying Aqtesolv© data sheets in this Attachment for K values.

EQUATION: $V = K_{av}\, i/\eta_e$

WHERE:

V= the groundwater seepage velocity (average linear velocity)

K_{av} = the average hydraulic conductivity

i= the hydraulic gradient

η_e = the effective porosity

CALCULATION A: Average (Arithmetic Mean) Hydraulic Conductivity,

Well MW–5

$K_{MW-5\ \#1} = 8.764 \times 10^{-5}$ ft/sec (2.671×10^{-3} cm/sec)

$K_{MW-5\ \#2} = 4.99 \times 10^{-5}$ ft/sec (1.521×10^{-3} cm/sec)

$K_{MW-5\ \#3} = 4.615 \times 10^{-5}$ ft/sec (1.407×10^{-3} cm/sec)

$$K_{av} = \frac{K_{MW-5\#1} + K_{MW-5\#2} + K_{MW-5\#3}}{3} = \underline{6.123 \times 10^{-5}\ ft/sec}\ (1.866 \times 10^{-3}\ cm/sec)$$

Prepared By: _____ Checked By: _____

Date: _____ Date: _____

CALCULATION OF GROUNDWATER SEEPAGE VELOCITY (CONTINUED)

CALCULATION B: Average (Arithmetic Mean) Hydraulic Conductivity,

Well MW–30

$K_{MW-30\ \#1}$ = 6.548 X 10^{-4} ft/sec (1.996 X 10^{-2} cm/sec)

$K_{MW-30\ \#2}$ = 3.917 X 10^{-4} ft/sec (1.194 X 10^{-2} cm/sec)

$K_{MW-30\ \#3}$ = 1.537 X 10^{-3} ft/sec (4.795 X 10^{-2} cm/sec)

$$K_{av} = \frac{K_{MW-30\#1} + K_{MW-30\#2} + K_{MW-30\#3}}{3} = \underline{8.612 \times 10^{-4}\ ft/sec}\ (2.625 \times 10^{-2}\ cm/sec)$$

CALCULATION C: Average (Arithmetic Mean) Hydraulic Conductivity,

Well MW–35

$K_{DMW-35\ \#1}$ = 1.794 X 10^{-3} ft/sec (5.468 X 10^{-2}cm/sec)

$K_{DMW-35\ \#2}$ = 2.285 X 10^{-3} ft/sec (6.965 X 10^{-2}cm/sec)

$K_{DMW-35\ \#3}$ = 2.122 X 10^{-3} ft/sec (6.468 X 10^{-2} cm/sec)

$$K_{av} = \frac{K_{MW-35\#1} + K_{MW-35\#2} + K_{MW-35\#3}}{3} = \underline{2.067 \times 10^{-3}\ ft/sec}\ (6.300 \times 10^{-2}\ cm/sec)$$

NOTE: There is an order of magnitude difference in the calculated average K values for each well (MW-5 = 10^{-5}, MW-30 = 10^{-4}, DMW-35 = 10^{-3}). In order to be conservative, the highest of the K values will be used to calculate the groundwater seepage velocity.

Prepared By: _____ Checked By: _____

Date: _____ Date: _____

CALCULATION OF GROUNDWATER SEEPAGE VELOCITY (CONTINUED)

EQUATION: $V = K_{av}\, i/\eta_e$

K_{av} = **2.067 X 10^{-3} ft/sec**

i = 0.0014

η_e **= 0.15 – for silty sand/sandy silt (from Fetter, page 69)**

CALCULATION D: Groundwater Seepage (Average Linear) Velocity

$$V = \frac{(2.067 \times 10^{-3}\ \text{ft/sec})(0.0014)}{0.15} = 1.929 \times 10^{-5}\ \text{ft/sec}$$

V= *1.929 X 10^{-5} ft/sec* *(5.879 X 10^{-4} cm/sec)*

Converting to feet per year (ft/yr):

1.929 X 10^{-5} ft/sec X 31,536,000 sec/yr = 608.3294 ft/yr

V= *608 ft/yr*

Prepared By: _____ Checked By: _____

Date: _____ Date: _____

CALCULATION OF SEEPAGE VELOCITY CONSIDERING RETARDATION

Reference: ASTM Standard Guide for Risk-Based Corrective Action at Petroleum Release Sites

EQUATION: $V_R = K_{av}\ i/\eta_e \times 1/R$

WHERE:

R = the retardation factor = $\left[1+\frac{k_s \rho_s}{\theta_s}\right]$

k_s **= sorption coefficient = 0.13363 cm^3/g**

ρ_s **= soil bulk density = 1.21 g/cm^3**

θ_s **= volumetric water content of saturated zone = 0.2**

$$R = 1+\frac{0.13363 x 1.21}{0.2} = \underline{\textit{1.80846}}$$

CALCULATION E: Average Retarded Velocity

$$V_R = \frac{(2.067 \times 10^{-3}\ \text{ft/sec})(0.0014)}{0.15(1.80846)} = 1.067 \times 10^{-5}\ \text{ft/sec}$$

V_R = *1.067x10^{-5} ft/sec*

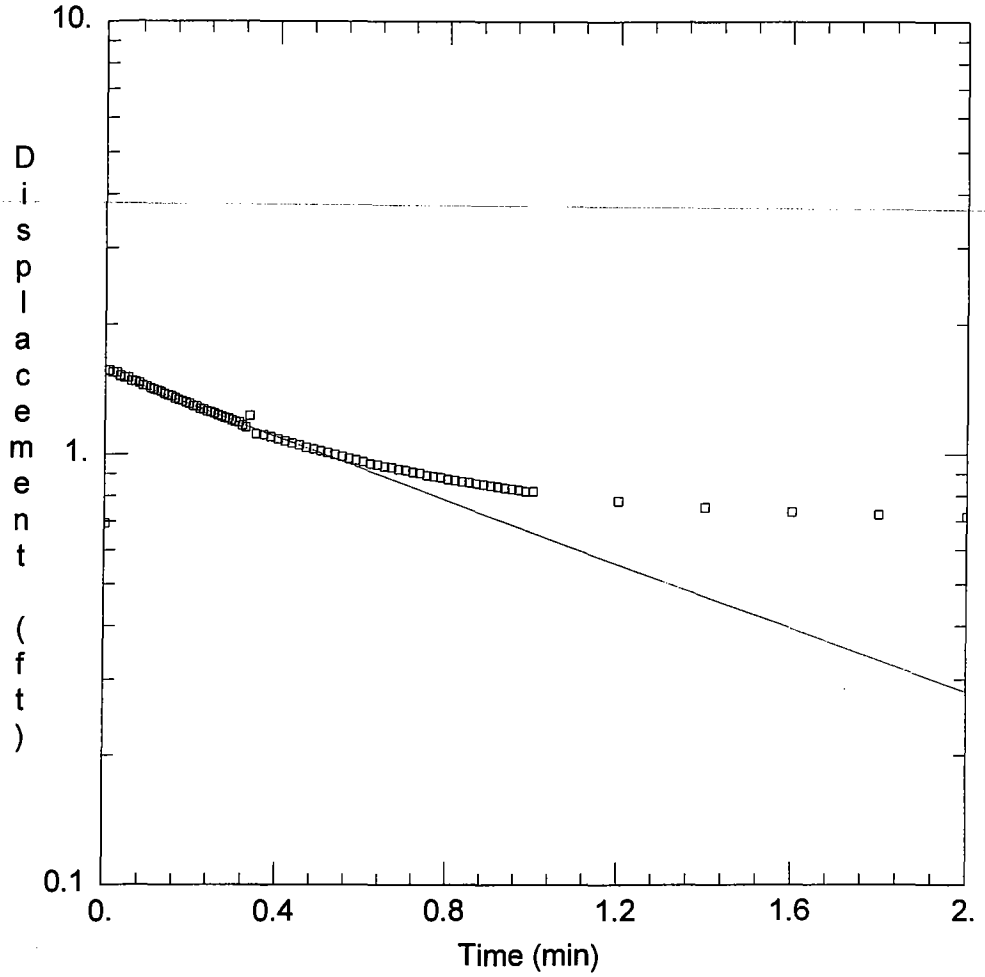
Converting to feet per year (ft/yr):

1.067 X 10^{-5} ft/sec X 31,536,000 sec/yr = 336 ft/yr

V_R = *336 ft/yr*

Prepared By: _____ Checked By: _____

Date: _____ Date: _____



SLUG-OUT TEST, SITE 1120, WELL MW-05

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW05_4.AQT
Date: 03/16/01 Time: 14:29:06

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-05
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 0.693 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 3.62 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.615E-05 ft/sec
y0 = 1.538 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW05_4.AQT
Title: Slug-Out Test, Site 1120, Well MW-05
Date: 03/16/01
Time: 14:29:16

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-05

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-05

X Location: 0. ft
Y Location: 0. ft

No. of observations: 111

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.564	0.3166	1.166	0.9166	0.839
0.0166	1.549	0.325	1.156	0.9333	0.834
0.025	1.549	0.3333	1.228	0.95	0.83
0.0333	1.521	0.35	1.113	0.9666	0.825
0.0416	1.506	0.3666	1.108	0.9833	0.82
0.05	1.506	0.3833	1.098	1.	0.82
0.0583	1.482	0.4	1.084	1.2	0.777
0.0666	1.473	0.4166	1.074	1.4	0.753
0.075	1.463	0.4333	1.06	1.6	0.734
0.0833	1.444	0.45	1.05	1.8	0.724
0.0916	1.439	0.4666	1.036	2.	0.715
0.1	1.425	0.4833	1.026	2.2	0.71
0.1083	1.415	0.5	1.017	2.4	0.705
0.1166	1.406	0.5166	1.007	2.6	0.7
0.125	1.396	0.5333	0.998	2.8	0.7
0.1333	1.382	0.55	0.988	3.	0.695
0.1416	1.372	0.5666	0.978	3.2	0.695

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	1.362	0.5833	0.969	3.4	0.695
0.1583	1.348	0.6	0.959	3.6	0.691
0.1666	1.338	0.6166	0.95	3.8	0.691
0.175	1.329	0.6333	0.945	4.	0.691
0.1833	1.319	0.65	0.935	4.2	0.691
0.1916	1.31	0.6666	0.93	4.4	0.691
0.2	1.295	0.6833	0.921	4.6	0.691
0.2083	1.29	0.7	0.916	4.8	0.691
0.2166	1.276	0.7166	0.906	5.	0.686
0.225	1.271	0.7333	0.902	5.2	0.686
0.2333	1.257	0.75	0.892	5.4	0.686
0.2416	1.252	0.7666	0.887	5.6	0.686
0.25	1.242	0.7833	0.882	5.8	0.686
0.2583	1.233	0.8	0.873	6.	0.686
0.2666	1.223	0.8166	0.868	6.2	0.686
0.275	1.214	0.8333	0.863	6.4	0.686
0.2833	1.209	0.85	0.858	6.6	0.686
0.2916	1.199	0.8666	0.854	6.8	0.686
0.3	1.19	0.8833	0.849	7.	0.681
0.3083	1.185	0.9	0.844	7.2	0.686

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	4.615E-05	ft/sec
y0	1.538	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	4.615E-05	8.027E-07	ft/sec
y0	1.538	0.02356	ft

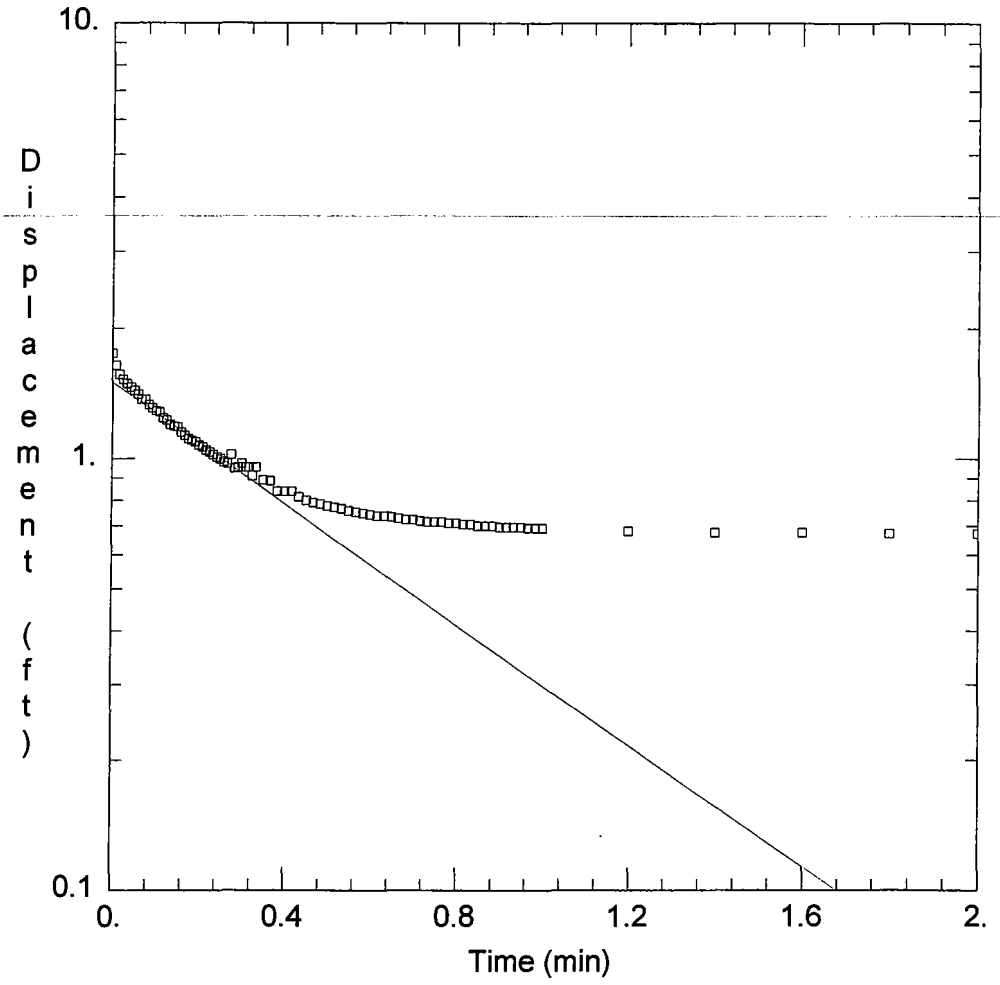
Parameter Correlations

	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-IN TEST, SITE 1120, WELL MW-05

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW05_3.AQT
Date: 03/16/01 Time: 14:28:11

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-05
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 1.751 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 3.62 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 8.764E-05 ft/sec
y0 = 1.5 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW05_3.AQT
Title: Slug-In Test, Site 1120, Well MW-05
Date: 03/16/01
Time: 14:28:20

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-05

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-05

X Location: 0. ft
Y Location: 0. ft

No. of observations: 107

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.641	0.3083	0.954	0.8833	0.7
0.0166	1.564	0.3166	0.954	0.9	0.695
0.025	1.525	0.325	0.911	0.9166	0.695
0.0333	1.492	0.3333	0.954	0.9333	0.695
0.0416	1.463	0.35	0.892	0.95	0.695
0.05	1.439	0.3666	0.887	0.9666	0.691
0.0583	1.41	0.3833	0.839	0.9833	0.691
0.0666	1.372	0.4	0.839	1.	0.691
0.075	1.372	0.4166	0.839	1.2	0.681
0.0833	1.334	0.4333	0.815	1.4	0.676
0.0916	1.31	0.45	0.801	1.6	0.676
0.1	1.29	0.4666	0.791	1.8	0.671
0.1083	1.281	0.4833	0.786	2.	0.671
0.1166	1.242	0.5	0.777	2.2	0.671
0.125	1.228	0.5166	0.772	2.4	0.671
0.1333	1.199	0.5333	0.767	2.6	0.671
0.1416	1.19	0.55	0.758	2.8	0.671

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	1.185	0.5666	0.753	3.	0.671
0.1583	1.151	0.5833	0.748	3.2	0.671
0.1666	1.132	0.6	0.743	3.4	0.671
0.175	1.113	0.6166	0.738	3.6	0.671
0.1833	1.103	0.6333	0.738	3.8	0.671
0.1916	1.094	0.65	0.734	4.	0.671
0.2	1.074	0.6666	0.729	4.2	0.671
0.2083	1.065	0.6833	0.724	4.4	0.667
0.2166	1.046	0.7	0.724	4.6	0.667
0.225	1.036	0.7166	0.719	4.8	0.667
0.2333	1.022	0.7333	0.715	5.	0.671
0.2416	1.007	0.75	0.715	5.2	0.671
0.25	0.998	0.7666	0.715	5.4	0.671
0.2583	0.983	0.7833	0.71	5.6	0.671
0.2666	0.974	0.8	0.71	5.8	0.671
0.275	1.022	0.8166	0.705	6.	0.667
0.2833	0.95	0.8333	0.705	6.2	0.667
0.2916	0.954	0.85	0.7	6.4	0.667
0.3	0.974	0.8666	0.7		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	8.764E-05	ft/sec
y0	1.5	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	8.764E-05	8.027E-07	ft/sec
y0	1.5	0.02356	ft

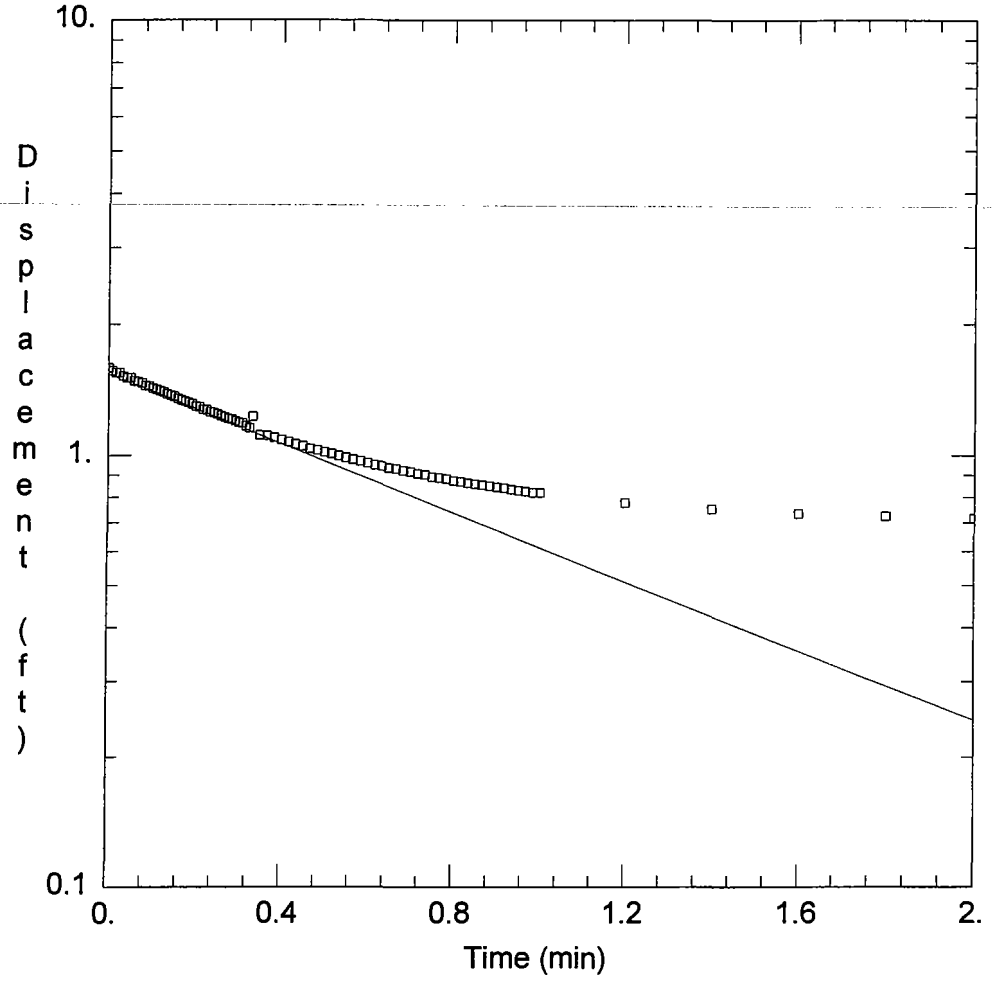
Parameter Correlations

	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-IN TEST, SITE 1120, WELL MW-05

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW05_1.AQT
Date: 03/16/01 Time: 14:33:32

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-05
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 1.588 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 3.62 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.99E-05 ft/sec
y0 = 1.535 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW05_1.AQT
Title: Slug-In Test, Site 1120, Well MW-05
Date: 03/16/01
Time: 14:27:27

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-05

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-05

X Location: 0. ft
Y Location: 0. ft

No. of observations: 111

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.564	0.3166	1.166	0.9166	0.839
0.0166	1.549	0.325	1.156	0.9333	0.834
0.025	1.549	0.3333	1.228	0.95	0.83
0.0333	1.521	0.35	1.113	0.9666	0.825
0.0416	1.506	0.3666	1.108	0.9833	0.82
0.05	1.506	0.3833	1.098	1.	0.82
0.0583	1.482	0.4	1.084	1.2	0.777
0.0666	1.473	0.4166	1.074	1.4	0.753
0.075	1.463	0.4333	1.06	1.6	0.734
0.0833	1.444	0.45	1.05	1.8	0.724
0.0916	1.439	0.4666	1.036	2.	0.715
0.1	1.425	0.4833	1.026	2.2	0.71
0.1083	1.415	0.5	1.017	2.4	0.705
0.1166	1.406	0.5166	1.007	2.6	0.7
0.125	1.396	0.5333	0.998	2.8	0.7
0.1333	1.382	0.55	0.988	3.	0.695
0.1416	1.372	0.5666	0.978	3.2	0.695

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	1.362	0.5833	0.969	3.4	0.695
0.1583	1.348	0.6	0.959	3.6	0.691
0.1666	1.338	0.6166	0.95	3.8	0.691
0.175	1.329	0.6333	0.945	4.	0.691
0.1833	1.319	0.65	0.935	4.2	0.691
0.1916	1.31	0.6666	0.93	4.4	0.691
0.2	1.295	0.6833	0.921	4.6	0.691
0.2083	1.29	0.7	0.916	4.8	0.691
0.2166	1.276	0.7166	0.906	5.	0.686
0.225	1.271	0.7333	0.902	5.2	0.686
0.2333	1.257	0.75	0.892	5.4	0.686
0.2416	1.252	0.7666	0.887	5.6	0.686
0.25	1.242	0.7833	0.882	5.8	0.686
0.2583	1.233	0.8	0.873	6.	0.686
0.2666	1.223	0.8166	0.868	6.2	0.686
0.275	1.214	0.8333	0.863	6.4	0.686
0.2833	1.209	0.85	0.858	6.6	0.686
0.2916	1.199	0.8666	0.854	6.8	0.686
0.3	1.19	0.8833	0.849	7.	0.681
0.3083	1.185	0.9	0.844	7.2	0.686

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	4.99E-05	ft/sec
y0	1.535	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	4.99E-05	8.027E-07	ft/sec
y0	1.535	0.02356	ft

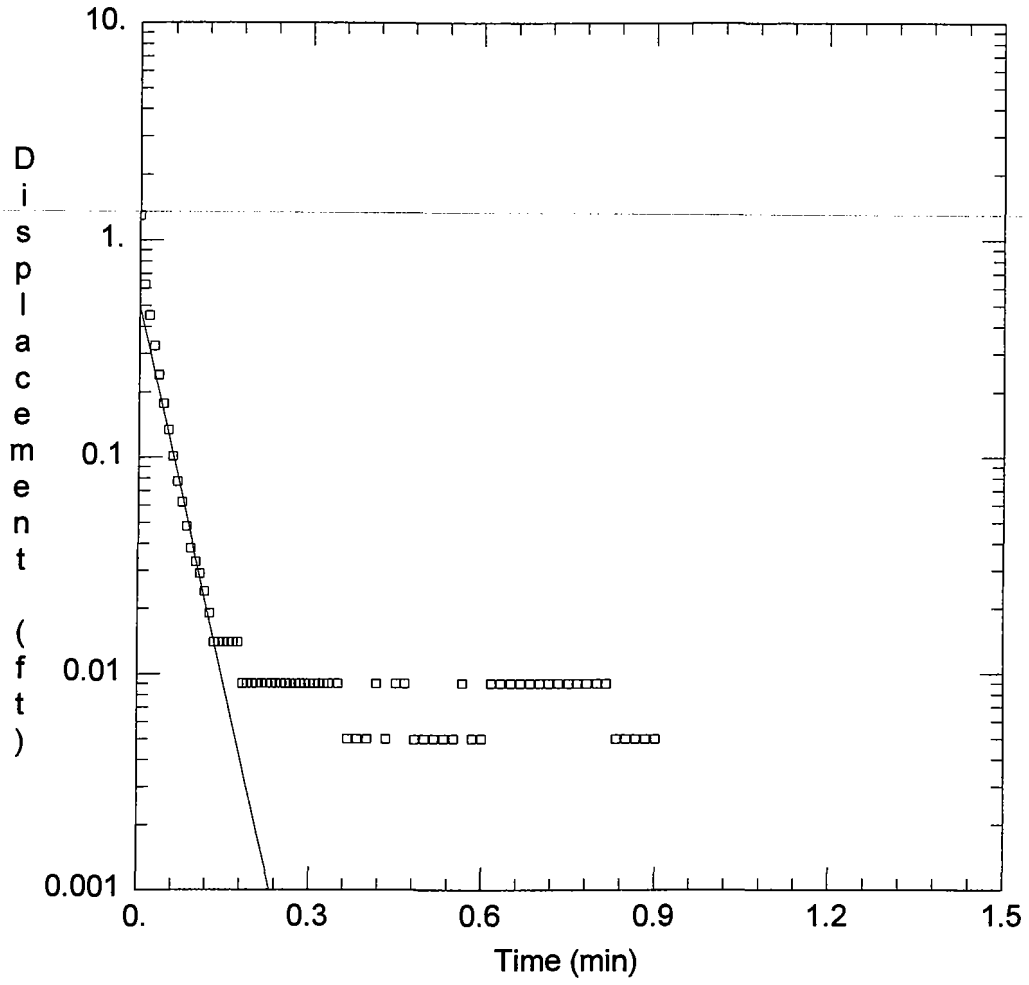
Parameter Correlations

	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-OUT TEST, SITE 1120, WELL MW-30

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW30_2_0.AQT
Date: 03/16/01 Time: 14:35:23

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-30
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 1.3 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 4.31 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.001537 ft/sec
y0 = 0.4946 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW30_2_0.AQT
Title: Slug-Out Test, Site 1120, Well MW-30
Date: 03/16/01
Time: 14:35:32

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-30

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-30

X Location: 0. ft
Y Location: 0. ft

No. of observations: 76

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	0.624	0.225	0.009	0.55	0.005
0.0166	0.451	0.2333	0.009	0.5666	0.009
0.025	0.326	0.2416	0.009	0.5833	0.005
0.0333	0.24	0.25	0.009	0.6	0.005
0.0416	0.177	0.2583	0.009	0.6166	0.009
0.05	0.134	0.2666	0.009	0.6333	0.009
0.0583	0.101	0.275	0.009	0.65	0.009
0.0666	0.077	0.2833	0.009	0.6666	0.009
0.075	0.062	0.2916	0.009	0.6833	0.009
0.0833	0.048	0.3	0.009	0.7	0.009
0.0916	0.038	0.3083	0.009	0.7166	0.009
0.1	0.033	0.3166	0.009	0.7333	0.009
0.1083	0.029	0.325	0.009	0.75	0.009
0.1166	0.024	0.3333	0.009	0.7666	0.009
0.125	0.019	0.35	0.009	0.7833	0.009
0.1333	0.014	0.3666	0.005	0.8	0.009
0.1416	0.014	0.3833	0.005	0.8166	0.009

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.014	0.4	0.005	0.8333	0.005
0.1583	0.014	0.4166	0.009	0.85	0.005
0.1666	0.014	0.4333	0.005	0.8666	0.005
0.175	0.014	0.45	0.009	0.8833	0.005
0.1833	0.009	0.4666	0.009	0.9	0.005
0.1916	0.009	0.4833	0.005	3.	0.005
0.2	0.009	0.5	0.005	3.2	0.005
0.2083	0.009	0.5166	0.005		
0.2166	0.009	0.5333	0.005		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.001537	ft/sec
y0	0.4946	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.001537	8.027E-07	ft/sec
y0	0.4946	0.02356	ft

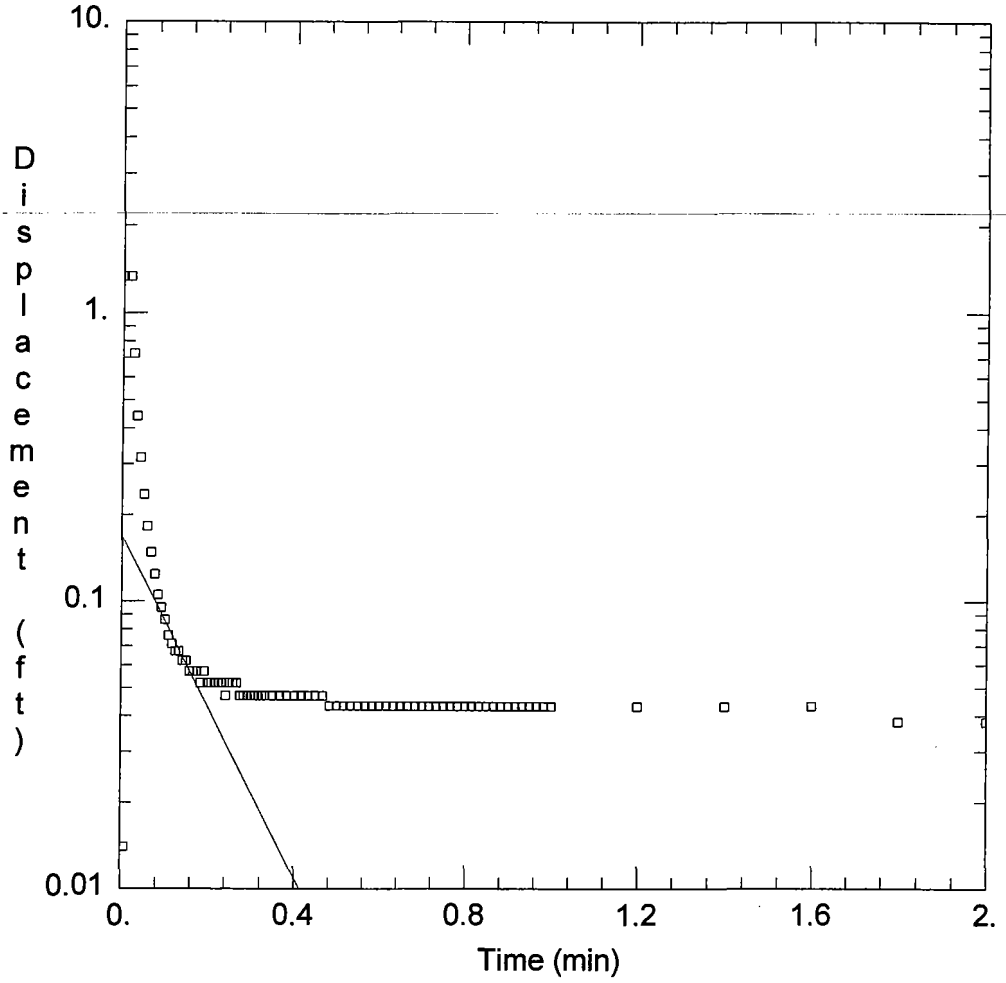
Parameter Correlations

	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-IN TEST, SITE 1120, WELL MW-30

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW30_1_2.AQT
Date: 03/16/01 Time: 14:36:35

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-30
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 1.334 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 4.31 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0003917 ft/sec
y0 = 0.1684 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW30_1_2.AQT
Title: Slug-In Test, Site 1120, Well MW-30
Date: 03/16/01
Time: 14:36:44

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-30

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-30

X Location: 0. ft
Y Location: 0. ft

No. of observations: 128

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	0.014	0.4	0.047	2.4	0.038
0.0166	1.334	0.4166	0.047	2.6	0.038
0.025	0.724	0.4333	0.047	2.8	0.038
0.0333	0.441	0.45	0.047	3.	0.038
0.0416	0.316	0.4666	0.047	3.2	0.038
0.05	0.235	0.4833	0.043	3.4	0.038
0.0583	0.182	0.5	0.043	3.6	0.038
0.0666	0.148	0.5166	0.043	3.8	0.038
0.075	0.124	0.5333	0.043	4.	0.033
0.0833	0.105	0.55	0.043	4.2	0.033
0.0916	0.095	0.5666	0.043	4.4	0.033
0.1	0.086	0.5833	0.043	4.6	0.033
0.1083	0.076	0.6	0.043	4.8	0.033
0.1166	0.071	0.6166	0.043	5.	0.033
0.125	0.067	0.6333	0.043	5.2	0.033
0.1333	0.067	0.65	0.043	5.4	0.028
0.1416	0.062	0.6666	0.043	5.6	0.023

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.062	0.6833	0.043	5.8	0.023
0.1583	0.057	0.7	0.043	6.	0.023
0.1666	0.057	0.7166	0.043	6.2	0.023
0.175	0.057	0.7333	0.043	6.4	0.023
0.1833	0.052	0.75	0.043	6.6	0.023
0.1916	0.057	0.7666	0.043	6.8	0.023
0.2	0.052	0.7833	0.043	7.	0.023
0.2083	0.052	0.8	0.043	7.2	0.023
0.2166	0.052	0.8166	0.043	7.4	0.028
0.225	0.052	0.8333	0.043	7.6	0.028
0.2333	0.052	0.85	0.043	7.8	0.023
0.2416	0.047	0.8666	0.043	8.	0.023
0.25	0.052	0.8833	0.043	8.2	0.023
0.2583	0.052	0.9	0.043	8.4	0.023
0.2666	0.052	0.9166	0.043	8.6	0.023
0.275	0.047	0.9333	0.043	8.8	0.023
0.2833	0.047	0.95	0.043	9.	0.023
0.2916	0.047	0.9666	0.043	9.2	0.023
0.3	0.047	0.9833	0.043	9.4	0.023
0.3083	0.047	1.	0.043	9.6	0.023
0.3166	0.047	1.2	0.043	9.8	0.023
0.325	0.047	1.4	0.043	10.	0.019
0.3333	0.047	1.6	0.043	11.	0.028
0.35	0.047	1.8	0.038	12.	0.028
0.3666	0.047	2.	0.038	13.	0.028
0.3833	0.047	2.2	0.038		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0003917	ft/sec
y0	0.1684	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.0003917	8.027E-07	ft/sec
y0	0.1684	0.02356	ft

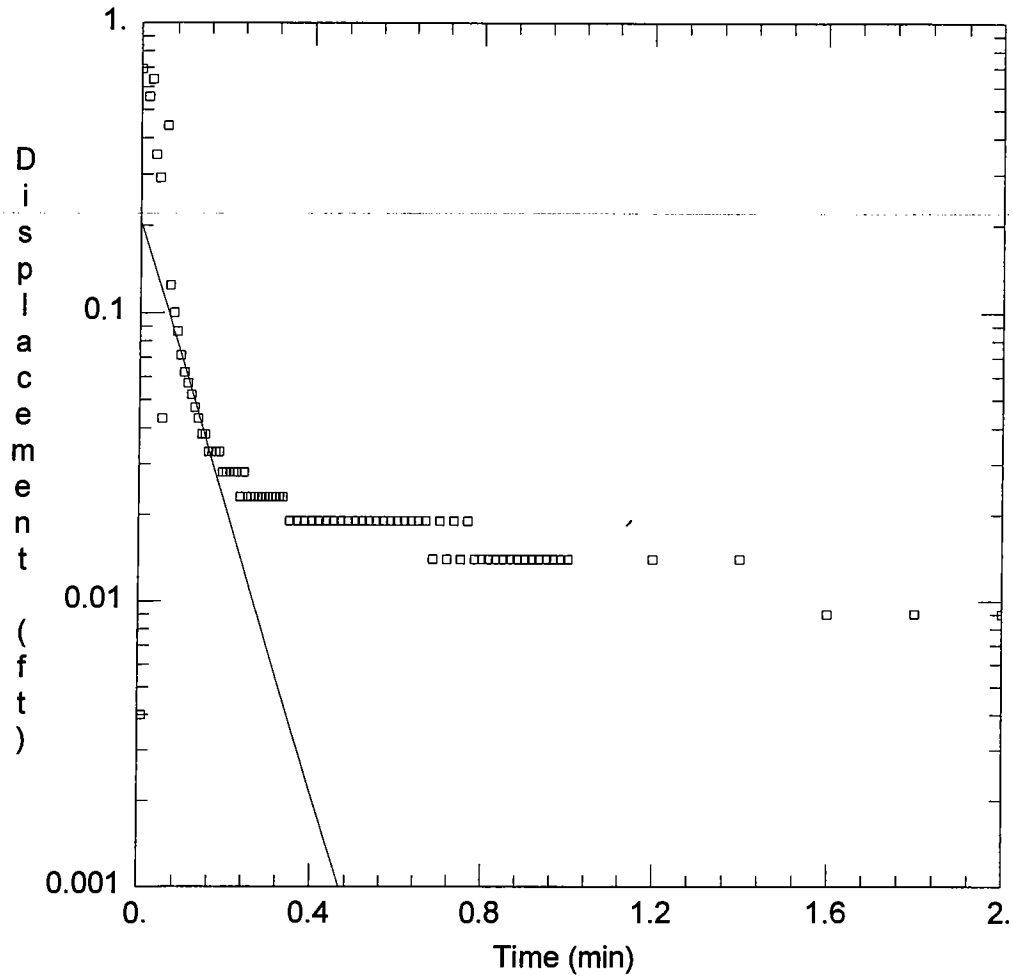
Parameter Correlations

	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-IN TEST, SITE 1120, WELL MW-30

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW30_1_0.AQT
Date: 03/16/01 Time: 14:37:28

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-30
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 0.6931 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 4.31 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0006548 ft/sec
y0 = 0.2058 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW30_1_0.AQT
Title: Slug-In Test, Site 1120, Well MW-30
Date: 03/16/01
Time: 14:37:36

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-30

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-30

X Location: 0. ft
Y Location: 0. ft

No. of observations: 93

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	0.004	0.2666	0.023	0.7166	0.014
0.0166	0.556	0.275	0.023	0.7333	0.019
0.025	0.638	0.2833	0.023	0.75	0.014
0.0333	0.35	0.2916	0.023	0.7666	0.019
0.0416	0.292	0.3	0.023	0.7833	0.014
0.05	0.043	0.3083	0.023	0.8	0.014
0.0583	0.441	0.3166	0.023	0.8166	0.014
0.0666	0.124	0.325	0.023	0.8333	0.014
0.075	0.1	0.3333	0.023	0.85	0.014
0.0833	0.086	0.35	0.019	0.8666	0.014
0.0916	0.071	0.3666	0.019	0.8833	0.014
0.1	0.062	0.3833	0.019	0.9	0.014
0.1083	0.057	0.4	0.019	0.9166	0.014
0.1166	0.052	0.4166	0.019	0.9333	0.014
0.125	0.047	0.4333	0.019	0.95	0.014
0.1333	0.043	0.45	0.019	0.9666	0.014
0.1416	0.038	0.4666	0.019	0.9833	0.014

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.038	0.4833	0.019	1.	0.014
0.1583	0.033	0.5	0.019	1.2	0.014
0.1666	0.033	0.5166	0.019	1.4	0.014
0.175	0.033	0.5333	0.019	1.6	0.009
0.1833	0.033	0.55	0.019	1.8	0.009
0.1916	0.028	0.5666	0.019	2.	0.009
0.2	0.028	0.5833	0.019	2.2	0.009
0.2083	0.028	0.6	0.019	2.4	0.009
0.2166	0.028	0.6166	0.019	2.6	0.009
0.225	0.028	0.6333	0.019	2.8	0.004
0.2333	0.023	0.65	0.019	3.	0.004
0.2416	0.028	0.6666	0.019	3.2	0.004
0.25	0.023	0.6833	0.014	3.4	0.004
0.2583	0.023	0.7	0.019	3.6	0.004

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0006548	ft/sec
y0	0.2058	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.0006548	8.027E-07	ft/sec
y0	0.2058	0.02356	ft

Parameter Correlations

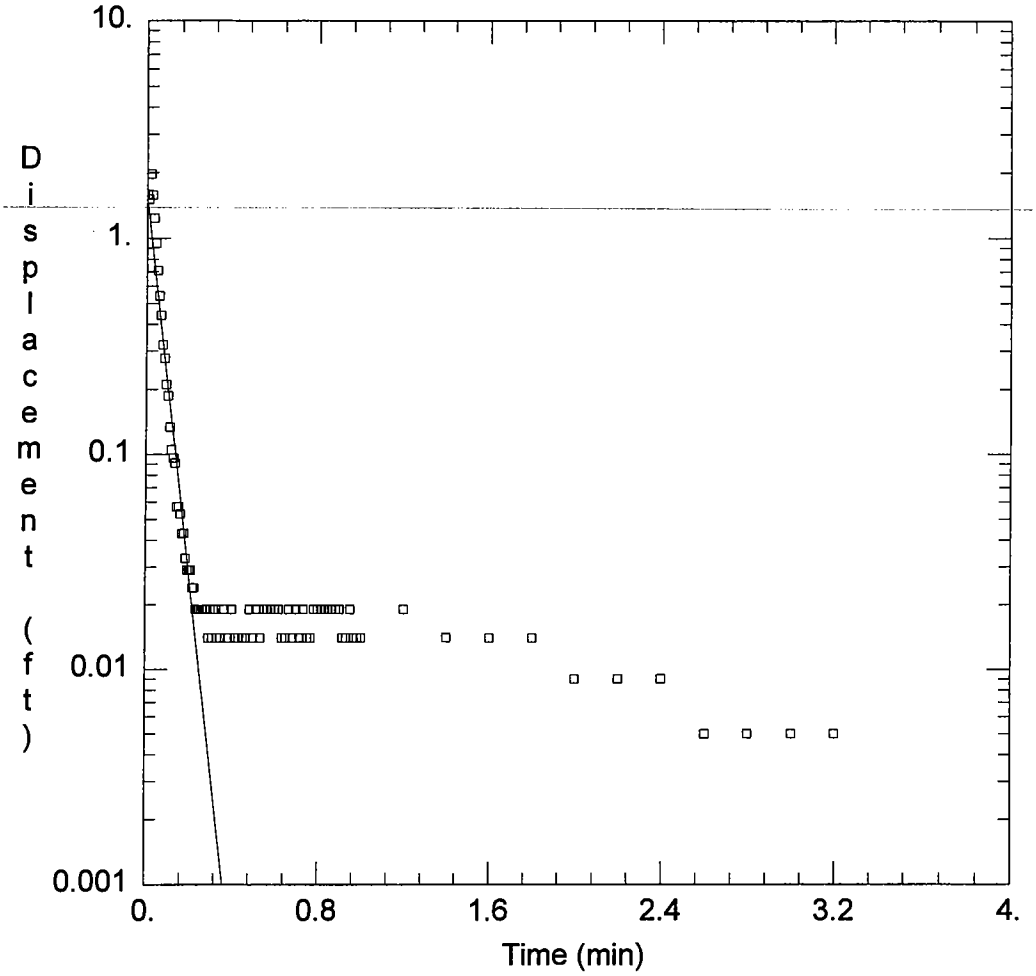
	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2

Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-OUT TEST, SITE 1120, WELL DMW-35

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW35_4_2.AQT
Date: 03/16/01 Time: 14:40:24

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-30
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 1.598 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 20.36 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.001794 ft/sec
y0 = 1.511 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW35_4_2.AQT
Title: Slug-Out Test, Site 1120, Well DMW-35
Date: 03/16/01
Time: 14:40:30

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-30

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-35

X Location: 0. ft
Y Location: 0. ft

No. of observations: 91

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.511	0.2666	0.019	0.7166	0.014
0.0166	1.972	0.275	0.019	0.7333	0.019
0.025	1.583	0.2833	0.019	0.75	0.014
0.0333	1.238	0.2916	0.014	0.7666	0.014
0.0416	0.95	0.3	0.019	0.7833	0.019
0.05	0.71	0.3083	0.014	0.8	0.019
0.0583	0.542	0.3166	0.019	0.8166	0.019
0.0666	0.441	0.325	0.019	0.8333	0.019
0.075	0.321	0.3333	0.014	0.85	0.019
0.0833	0.278	0.35	0.014	0.8666	0.019
0.0916	0.211	0.3666	0.019	0.8833	0.019
0.1	0.187	0.3833	0.014	0.9	0.019
0.1083	0.134	0.4	0.019	0.9166	0.014
0.1166	0.105	0.4166	0.014	0.9333	0.014
0.125	0.096	0.4333	0.014	0.95	0.019
0.1333	0.091	0.45	0.014	0.9666	0.014
0.1416	0.057	0.4666	0.014	0.9833	0.014

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.057	0.4833	0.019	1.	0.014
0.1583	0.053	0.5	0.014	1.2	0.019
0.1666	0.043	0.5166	0.019	1.4	0.014
0.175	0.043	0.5333	0.014	1.6	0.014
0.1833	0.033	0.55	0.019	1.8	0.014
0.1916	0.029	0.5666	0.019	2.	0.009
0.2	0.029	0.5833	0.019	2.2	0.009
0.2083	0.029	0.6	0.019	2.4	0.009
0.2166	0.024	0.6166	0.019	2.6	0.005
0.225	0.024	0.6333	0.014	2.8	0.005
0.2333	0.019	0.65	0.014	3.	0.005
0.2416	0.019	0.6666	0.019	3.2	0.005
0.25	0.019	0.6833	0.014		
0.2583	0.019	0.7	0.019		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.001794	ft/sec
y0	1.511	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.001794	8.027E-07	ft/sec
y0	1.511	0.02356	ft

Parameter Correlations

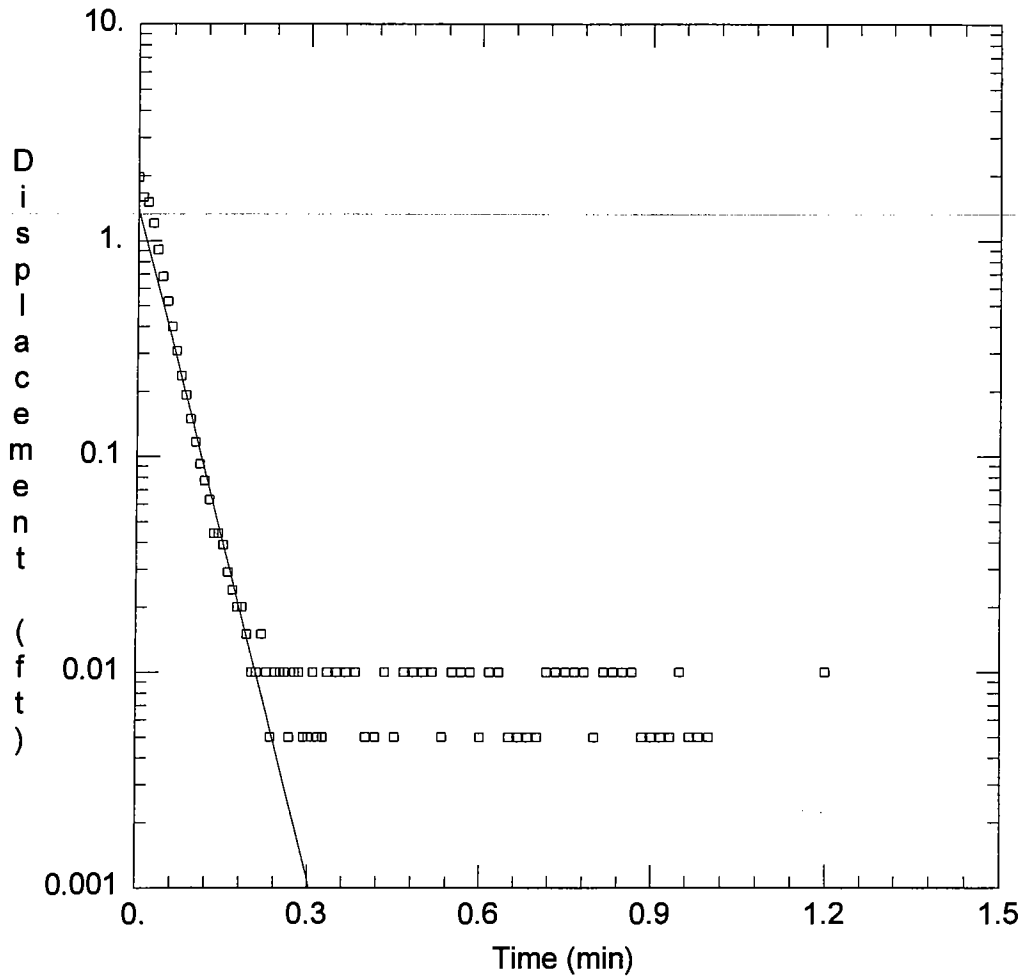
	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2

Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2



SLUG-OUT TEST, SITE 1120, WELL DMW-35

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW35_4_4.AQT
Date: 03/16/01 Time: 14:40:56

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-30
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 1.972 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 20.36 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.002122 ft/sec
y0 = 1.392 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW35_4_4.AQT
Title: Slug-Out Test, Site 1120, Well DMW-35
Date: 03/16/01
Time: 14:41:02

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-30

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-35

X Location: 0. ft
Y Location: 0. ft

No. of observations: 87

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.598	0.25	0.01	0.65	0.005
0.0166	1.512	0.2583	0.01	0.6666	0.005
0.025	1.21	0.2666	0.005	0.6833	0.005
0.0333	0.912	0.275	0.01	0.7	0.005
0.0416	0.682	0.2833	0.01	0.7166	0.01
0.05	0.523	0.2916	0.005	0.7333	0.01
0.0583	0.399	0.3	0.005	0.75	0.01
0.0666	0.308	0.3083	0.01	0.7666	0.01
0.075	0.236	0.3166	0.005	0.7833	0.01
0.0833	0.192	0.325	0.005	0.8	0.005
0.0916	0.149	0.3333	0.01	0.8166	0.01
0.1	0.116	0.35	0.01	0.8333	0.01
0.1083	0.092	0.3666	0.01	0.85	0.01
0.1166	0.077	0.3833	0.01	0.8666	0.01
0.125	0.063	0.4	0.005	0.8833	0.005
0.1333	0.044	0.4166	0.005	0.9	0.005
0.1416	0.044	0.4333	0.01	0.9166	0.005

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.039	0.45	0.005	0.9333	0.005
0.1583	0.029	0.4666	0.01	0.95	0.01
0.1666	0.024	0.4833	0.01	0.9666	0.005
0.175	0.02	0.5	0.01	0.9833	0.005
0.1833	0.02	0.5166	0.01	1.	0.005
0.1916	0.015	0.5333	0.005	1.2	0.01
0.2	0.01	0.55	0.01	1.6	0.005
0.2083	0.01	0.5666	0.01	1.8	0.005
0.2166	0.015	0.5833	0.01	2.	0.005
0.225	0.01	0.6	0.005	2.2	0.005
0.2333	0.005	0.6166	0.01	2.4	0.005
0.2416	0.01	0.6333	0.01	2.8	0.005

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.002122	ft/sec
y0	1.392	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.002122	8.027E-07	ft/sec
y0	1.392	0.02356	ft

Parameter Correlations

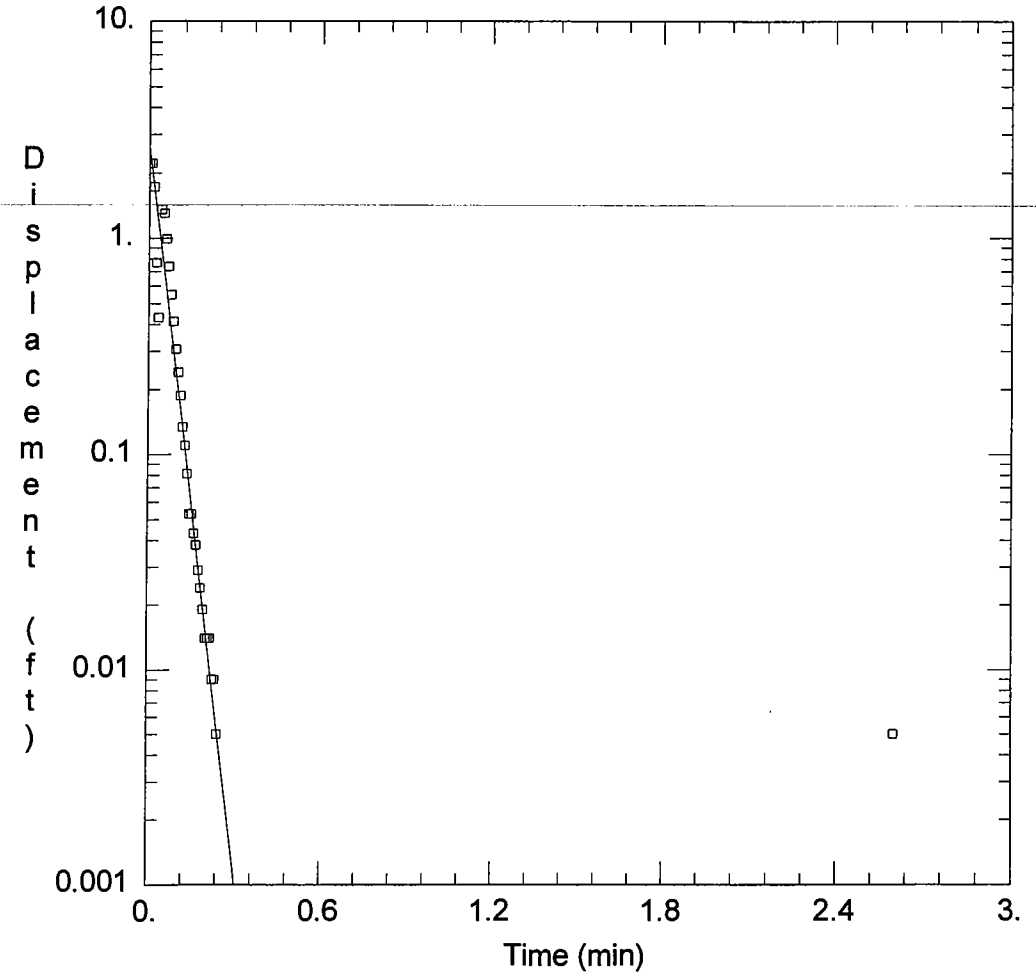
	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft

No. of Residuals . . . 111.
No. of Estimates . . . 2



SLUG-OUT TEST, SITE 1120, WELL MW-30

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW35_4_0.AQT
Date: 03/16/01 Time: 14:41:22

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Test Location: OLF Bronson
Test Well: MW-30
Test Date: July 21, 2000

WELL DATA

Initial Displacement: 2.217 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 20.36 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.002285 ft/sec
y0 = 2.623 ft

Data Set: C:\NASPEN~1\REPORT~1\1120\SLUGTE~1\MW35_4_0.AQT
Title: Slug-Out Test, Site 1120, Well MW-30
Date: 03/16/01
Time: 14:41:36

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: FDEP # 179300938
Location: OLF Bronson
Test Date: July 21, 2000
Test Well: MW-30

AQUIFER DATA

Saturated Thickness: 58. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-35

X Location: 0. ft
Y Location: 0. ft

No. of observations: 30

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	2.217	0.0916	0.307	0.175	0.029
0.0166	1.737	0.1	0.24	0.1833	0.024
0.025	0.772	0.1083	0.187	0.1916	0.019
0.0333	0.432	0.1166	0.134	0.2	0.014
0.0416	1.363	0.125	0.11	0.2083	0.014
0.05	1.305	0.1333	0.081	0.2166	0.014
0.0583	0.993	0.1416	0.053	0.225	0.009
0.0666	0.739	0.15	0.053	0.2333	0.009
0.075	0.547	0.1583	0.043	0.2416	0.005
0.0833	0.412	0.1666	0.038	2.6	0.005

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.002285	ft/sec
y0	2.623	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	0.002285	8.027E-07	ft/sec
y0	2.623	0.02356	ft

Parameter Correlations

	K	y0
K	1.00	0.55
y0	0.55	1.00

Residual Statistics

for weighted residuals

Sum of Squares ... 3.409 ft^2
Variance..... 0.03127 ft^2
Std. Deviation..... 0.1768 ft
Mean ..... 0.004483 ft
No. of Residuals ... 111.
No. of Estimates ... 2

ATTACHMENT G
GROUNDWATER SAMPLING FORMS

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF BRONSON
Project No.: ~~#20~~ 0401

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: OLFB/20/MW35/GW
Sample Location: SITE #20
Sampled By: PN
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/6/06								
Time: 1650								
Method: STRAW/LOW FLOW	CLEAR							

PURGE DATA: 1545

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/6/06								
Method: LOW FLOW	INITIAL	4.29	.040	23.1	26.6	6.04	0.0	CLEAR
Monitor Reading (ppm): 0.0	~~1555~~	4.45	.040	22.6	5.55	3.94	0.0	CLEAR
Well Casing Diameter & Material	1555	4.48	.040	22.5	3.56	5.99	0.0	CLEAR
Type: 2" PVC	1605	4.48	.040	22.4	2.04	6.01	0.0	CLEAR
Total Well Depth (TD): 43.40	1615	4.35	.040	22.5	2.16	6.04	0.0	CLEAR
Static Water Level (WL): 21.95	1625	4.37	.040	22.4	2.26	5.95	0.0	CLEAR
One Casing Volume(gal/L): 3.5	1635	4.37	.040	22.5	3.16	5.93	0.0	CLEAR
Start Purge (hrs): 1535	1645	4.37	.040	22.5	1.16	5.86	0.0	
End Purge (hrs): 1645								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 10.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TRPH	H_2SO_4	2/1 LT. AMBER	
VOC	HCL	2/40mL VOA	
PAH	0	2/1 LTR AMBER	

OBSERVATIONS / NOTES:

DO = 5.9 mg/L ORP = 86.1 mV
Fe = 0.0 mg/L HS = 0.0 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLD FLIGHTLINE BRANSON
Project No.: 0401

Sample ID No.: OLFB/24/MW34/GW
Sample Location: SITE 20
Sampled By: PDH
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/8/00								
Time: 1045								
Method: LOW FLOW/STAT.	CLEAR	4.30	.046	22.6	0.18	5.00	—	—

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/8/00								
Method: LOW FLOW	INITIAL	4.27	.049	23.2	46.4	5.52	—	CLEAR
Monitor Reading (ppm): —	0910	4.35	.048	22.5	22.5	5.35	—	CLEAR
Well Casing Diameter & Material	0925	4.31	.047	22.4	7.90	5.40	—	CLEAR
Type: 2" PVC	0930	4.29	.047	22.3	5.38	5.44	—	CLEAR
Total Well Depth (TD): 39.31	0940	4.23	.046	22.4	4.10	5.13	—	CLEAR
Static Water Level (WL): 21.01	0950	4.27	.046	22.4	3.30	4.96	—	CLEAR
One Casing Volume(gal/L): 3.0	1000	4.22	.046	22.4	3.59	5.04	—	CLEAR
Start Purge (hrs): 0900	1010	4.30	.047	22.4	2.48	5.47	—	CLEAR
End Purge (hrs): 1040	1020	4.25	.047	22.6	2.09	5.20	—	CLEAR
Total Purge Time (min): 100	1030	4.26	.046	22.6	2.24	5.11	—	CLEAR
Total Vol. Purged (gal/L): 9.0	1040	4.30	.046	22.6	2.18	5.00	—	CLEAR

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL, ICE	2 - 40 ML VIALS	2
TRPH	H_2SO_4, ICE	2 - 1000 ML AMBER	2
PAH	0, ICE	2 - 1000 ML AMBER	2

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE IMM.
DO= 9.4 mg/L ORP= 145.4 mV
Fe= 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Branson
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLF1320MW30GW
Sample Location: 1120 MW30
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7-8-00								
Time: 1552								
Method: peristaltic	Clear	6.21	.095	22.9	6.38	1.52	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7-8-00								
Method: peristaltic	Initial	5.76	.104	23.8	608	0.8[illegible]	0.00	
Monitor Reading (ppm): —	1st	6.19	.100	23.0	74.5	1.16	0.00	
Well Casing Diameter & Material	2nd	6.11	.096	23.1	20.7	1.41	0.00	
Type: 2" PVC	3rd	6.24	.094	22.8	16.0	2.54	0.00	
Total Well Depth (TD): 24.28	4th	6.21	.093	23.0	8.44	1.82	0.00	
Static Water Level (WL): 19.56	5th	6.21	.095	22.9	6.38	1.52	0.00	
One Casing Volume(gal/L): .80								
Start Purge (hrs): 1459								
End Purge (hrs): 1549								
Total Purge Time (min): 50 min								
Total Vol. Purged (gal/L): ~4 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

DO = 0.6 mg/L ORP = -76.4 mV
Fe = 3.30 (limit) mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

B

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Branson
Project No.: 0401

Sample ID No.: OLFB20MW26GW
Sample Location: MW-26
Sampled By: JRN
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 7-8-00								
Time: 1505								
Method: Pump	Clear	5.25	.116	22.6	6.1	0.03	0.0	-216.6

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP
Date: 7-28-00								
Method: Pump	Init.	5.73	.124	23.8	25	6.80	0.0	211.6
Monitor Reading (ppm): —	0.5	5.39	.119	22.8	13	0.09	0.0	-219.4
Well Casing Diameter & Material	1.0	5.29	.116	22.7	8.5	0.03	0.0	-216.5
Type: 2" PVC	1.5	5.25	.116	22.6	6.1	0.03	0.0	-216.6
Total Well Depth (TD): 23.72								
Static Water Level (WL): 20.75								
One Casing Volume(gal/L): 0.5								
Start Purge (hrs): 1442								
End Purge (hrs): 1505								
Total Purge Time (min): 23 min								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2x40 ml vials	
PAH	None	2x1000 ml ambers	
TRPH	H_2SO_4	" " " "	

OBSERVATIONS / NOTES:

DO = 1.1 mg/L ORP = -55.6 mV
Fe = 3.1 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.: ~~OLFB20B002~~ 7-10-00

Signature(s): J.R.H.

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson
Project No.: 0401

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW25GW
Sample Location: Site 20 MW25
Sampled By: JA
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/8/00								
Time: 1506								
Method: peristaltic	Clear	5.42	.106	23.8	24	0.64	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/8/00								
Method: peristaltic	Initial	5.65	.142	25.3	999	2.10	0.00	
Monitor Reading (ppm): —	1	5.78	.121	24.4	999	1.11	0.00	
Well Casing Diameter & Material	2	5.54	.115	23.9	152	5.22	0.00	
Type: 2" PVC	3	5.59	.111	23.7	91	0.78	0.00	
Total Well Depth (TD): 23.60	4	5.42	.106	23.8	24	0.64	0.00	
Static Water Level (WL): 20.04								
One Casing Volume(gal/L): .56								
Start Purge (hrs): 1418								
End Purge (hrs): 1506								
Total Purge Time (min): 48 min								
Total Vol. Purged (gal/L): ~2.24								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

DO = 2.1 mg/L ORP = -85.1 mV
Fe = 3.30 mg/L (Unfil)

3
3
3.56
.16
2136
3560
5696

Circle if Applicable:

MS/MSD	Duplicate ID No.: JE 7-10-00 ~~OLFB20D002~~ OLFB20D002

Signature(s):

3.96 Ø

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NER
Project No.: 0401

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: 01LFB/20/MW124/GW
Sample Location: SITE 20
Sampled By: PDA
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

Date: 7/8/00	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1440	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	
Method: LOW FLOW / STRAW	CLEAR	5.71	.103	22.6	9.85	0.08	—	—

PURGE DATA:

Date: 7-8-00	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: LOW FLOW	INITIAL	5.78	.127	23.8	96.1	0.52	—	GREY / CLOUDY
Monitor Reading (ppm): —	1350	5.81	.126	23.0	73.9	0.14	—	GREY, CLOUDY
Well Casing Diameter & Material	1355	5.88	.120	22.7	77.7	0.09	—	GREY, CLOUDY
Type: 2" PVC	1400	5.82	.118	22.6	59.8	0.06	—	GREY CLOUDY
Total Well Depth (TD): 25.60	1405	5.84	.110	22.7	37.3	0.49	—	CLOUDY
Static Water Level (WL): 19.23	1410	5.82	.108	22.8	30.9	0.27	—	CLOUDY
One Casing Volume(gal/L): .7	1415	5.80	.107	22.5	24.9	0.17	—	CLEAR
Start Purge (hrs): 1340	1420	5.75	.105	22.7	20.	0.15	—	CLEAR
End Purge (hrs): 1435	1425	5.74	.106	22.7	16.8	0.15	—	CLEAR
Total Purge Time (min): 55	1430	5.72	.104	22.5	12.0	0.14	—	CLEAR
Total Vol. Purged (gal/L): 3.0	1435	5.71	.103	22.6	9.85	0.08	—	CLEAR

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL, ICE	2 x 40 mL	2
TRPH	H_2SO_4, ICE	1 x 1000 mL AMBER	2
PAH	ICE	1 x 1000 AMBER	2

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE.
DO=1.8 mg/L ORP=-14.7 mV
Fe= 3.30 mg/L limit

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson
Project No.: 0401

Sample ID No.: ~~OLFB20MW17GW~~ OLFB20MW19GW
Sample Location: Site 1120 ~~MW17~~ MW19
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7-8-00								
Time: 1414								
Method: peristaltic	clear	4.64	.036	24.0	1.70	6.95	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7-8-00								
Method: peristaltic	Initial	4.85	.049	25.9	199	9.73	0.00	
Monitor Reading (ppm): —	1st	4.64	.035	24.2	6.44	7.58	0.00	
Well Casing Diameter & Material	2nd	4.52	.035	23.8	3.16	6.90	0.00	
Type: 2" PVC	3rd	4.54	.036	24.0	1.70	6.95	0.00	
Total Well Depth (TD): 22.00								
Static Water Level (WL): 19.75								
One Casing Volume(gal/L): ~~.145~~ .385								
Start Purge (hrs): 1339								
End Purge (hrs): 1410								
Total Purge Time (min): 31 min								
Total Vol. Purged (gal/L): ~1.4 g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

DO = 7.0 mg/L ORP = 176.4 mV
Fe = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

MW-18

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

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Project Site Name: OLF Bronson
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW18GW
Sample Location: Site 1120 MW18
Sampled By: RH
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 7-8-00								
Time: 1237								
Method: Pump	Clear	5.38	.096	22.8	15	0.16	0.0	-173.3

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP
Date: 7-8-00								
Method: Pump	Init	5.70	.140	24.5	>999	0.11	0.0	-35.5
Monitor Reading (ppm): —	0.3	5.44	.103	23.2	39	0.15	0.0	-132.2
Well Casing Diameter & Material	0.6	5.36	.099	23.1	17	0.17	0.0	-138.6
Type: 2" PVC	0.9	5.39	.094	22.7	8.6	0.19	0.0	-162.4
Total Well Depth (TD): 22.02	1.2	5.38	.096	22.8	15	0.16	0.0	-173.3
Static Water Level (WL): 20.26								
One Casing Volume(gal/L): 0.29								
Start Purge (hrs): 1208								
End Purge (hrs): 1237								
Total Purge Time (min): 29 min								
Total Vol. Purged (gal/L): ~2 g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2x40 mL vials	
PAH	None	2x1000 mL ambers	
TRPH	H2SO4	" " " "	

OBSERVATIONS / NOTES:

DO = 1.5 mg/L ORP = -46.7 mV

Fe = 3.30 mg/L (Unfilt)

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J. R. [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Benson
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW17GW
Sample Location: Site 120 MW17
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7-8-00								
Time: 1135								
Method: peristaltic	clear	5.91	.176	23.9	4.31	4.89	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7-8-00								
Method: peristaltic	Initial	5.74	.177	24.4	999	7.20	0.00	
Monitor Reading (ppm): —	1st	6.80	.190	23.4	272	0.20	0.00	
Well Casing Diameter & Material	2nd	5.82	.180	23.8	5.88	4.94	0.00	
Type: 2" PVC	3rd	5.91	.176	23.9	4.31	4.89	0.00	
Total Well Depth (TD): 22.49								
Static Water Level (WL): 20.39								
One Casing Volume(gal/L): 1.5g	.34							
Start Purge (hrs): 1056								
End Purge (hrs): 11.32								
Total Purge Time (min): 36 min								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	3
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

DO = 2.6 mg/L ORP = -50.9 mV
Fe = 3.30 mg/L
(limit)

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

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Project Site Name: OLF Bronson
Project No.: 0401

Sample ID No.: OLFB20MW12GW
Sample Location: Site 1120 MW12
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/8/00								
Time: 0941								
Method: peristaltic	cloudy	6.22	.109	23.3	65.6	6.23	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/8/00								
Method: peristaltic	Initial	5.72	.142	23.8	349	-1.78	0.00	
Monitor Reading (ppm): —	1st	5.81	.112	23.1	547	6.55	0.00	
Well Casing Diameter & Material	2nd	5.89	.110	22.9	175	-6.78	0.00	
Type: 2" PVC	3rd	6.15	.115	23.1	38.9	1.61	0.00	
Total Well Depth (TD): 21.23	4th	6.24	.110	22.9	57.3	1.62	0.00	
Static Water Level (WL): 18.31	5th	6.22	.109	23.3	[illegible]	6.23	0.00	
One Casing Volume(gal/L): ~~.18 gal~~ .5 g					65.5			
Start Purge (hrs): 0845								
End Purge (hrs): 0938								
Total Purge Time (min): 53 min								
Total Vol. Purged (gal/L): ~3 g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

DO = 2.6 mg/L ORP = 437.7 mV

Fe = 3.30 mg/L (limit) HS = 0.00 mg/L

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

A

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

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Project Site Name: OLF Branson
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW11GW
Sample Location: Site 1120 MW11
Sampled By: RH
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 7-8-00								
Time: 1458								
Method: Pump	Clear	5.15	.046	24.3	24	3.41	0.0	31.3

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP
Date: 7-8-00								
Method: Pump	Init	5.88	.124	25.5	>999	0.24	0.0	-233.0
Monitor Reading (ppm): ~	0.5	5.51	.075	24.7	>999	1.41	0.0	-208.9
Well Casing Diameter & Material	1.0	5.39	.052	24.3	190	2.71	0.0	-106.0
Type: 2" PVC	1.5	5.18	.048	24.4	100	2.60	0.0	-18.5
Total Well Depth (TD): 20.95	2.0	5.15	.046	24.3	24	3.40	0.0	31.3
Static Water Level (WL): 18.00								
One Casing Volume(gal/L): 0.5								
Start Purge (hrs): 1449								
End Purge (hrs): 1456								
Total Purge Time (min): 57 min								
Total Vol. Purged (gal/L): ~2.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3x40 ml vials	
PAH	None	2x1000 ml ambers	
TRPH	H_2SO_4	" " " "	

OBSERVATIONS / NOTES:

DO > 6.8 mg/L
Fe = 0.82 mg/L
ORP = 126.6 mV

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): J.R. Hill

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

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Project Site Name: OLF Bronson
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW35G
Sample Location: Site 20
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/6/00								
Time: ~~1420~~ 1621								
Method: peristaltic	Clear	6.32	.153	24.7	0	1.32	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/6/00								
Method: peristaltic	Initial	6.40	.172	25.3	999	11.82	0.00	
Monitor Reading (ppm): —	1st	6.37	.158	24.9	79	2.61	0.00	
Well Casing Diameter & Material	2nd	6.34	.154	24.9	0	1.32	0.00	
Type: 2" PVC	3rd	6.32	.153	24.7	0	1.32	0.00	
Total Well Depth (TD): 21.10								
Static Water Level (WL): 18.85								
One Casing Volume(gal/L): .145								
Start Purge (hrs): 1537								
End Purge (hrs): 1619								
Total Purge Time (min): 42 min								
Total Vol. Purged (gal/L): ~.42g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

2.25 DO=1.6 mg/L ORP=70.6 mV
.06 Fe=3.30 mg/L HS=0.0 mg/L
.1350 (limit)

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

OLFB20MW076W SB 7/8/00

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Project Site Name: OLF Bronson
Project No.: 0401

Sample ID No.: OLFB20MW076W
Sample Location: Site 20 MW076
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7-7-00								
Time: 1536								
Method: peristaltic	clear	5.86	.073	23.8	8.25	—	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7-7-00								
Method: peristaltic	Initial	5.69	.101	26.1	999	—	0.00	
Monitor Reading (ppm): —	1st	5.86	.072	24.6	271	—	0.00	
Well Casing Diameter & Material	2nd	5.86	.072	23.8	81.3	—	0.00	
Type: 2" PVC	3rd	5.89	.071	23.9	25.1	—	0.00	
Total Well Depth (TD): 21.76	4th	5.86	.072	24.0	14.6	—	0.00	
Static Water Level (WL): 19.06	5th	5.86	.073	23.8	8.25	—	0.00	
One Casing Volume(gal/L): .16 g								
Start Purge (hrs): 1442								
End Purge (hrs): 1533								
Total Purge Time (min): 51 min								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40mL	2
PAH	—	1 Liter Amber	2
TRPH	H_2SO_4	1 Liter Amber	2

OBSERVATIONS / NOTES:

DO=5.4 mg/L
Fe=3.30 mg/L (limit)
ORP= 27.9 mV
HS=0.00 mg/L

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

1510

2.4

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GROUNDWATER SAMPLE LOG SHEET

OLFB20MW06GW

Page___ of ___ MW6

Project Site Name: OLFB BRONSON
Project No.: ~~SIPS~~ 0401

Sample ID No.: ~~OLFB/20/MW06GW~~ SB 7/8/00
Sample Location: SITE 20 MW6
Sampled By: KW
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/7/00								
Time: 1648								
Method: LOW FLOW	CLEAR	5.70	.037	25.0	8.21	3.68	Ø	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/7/00								
Method: LOW FLOW	INITIAL	5.53	.040	24.8	583	3.01	Ø	CLOUDY
Monitor Reading (ppm): —	1555	5.45	.040	25.6	455	3.10	Ø	CLOUDY
Well Casing Diameter & Material	1600	5.43	.040	25.4	341	2.93	Ø	CLOUDY
Type: 2" PVC	1605	5.38	.039	25.4	280	3.04	Ø	CLOUDY
Total Well Depth (TD): 20.31	1610	5.34	.038	25.3	199	3.04	Ø	CLOUDY
Static Water Level (WL): 17.91	1615	5.31	.038	25.1	110	4.04	Ø	CLOUDY
One Casing Volume (gal/L): .4	1620	5.28	.038	25.2	94.6	3.45	Ø	CLOUDY
Start Purge (hrs): 15.50	1625	5.26	.038	25.0	52.1	3.68	Ø	CLOUDY
End Purge (hrs): 1640	1630	5.24	.037	25.6	27.9	3.64	Ø	CLOUDY
Total Purge Time (min): 50	1635	5.21	.037	25.0	25.8	3.62	Ø	CLEAR
Total Vol. Purged (gal/L): 2.5	1640	5.20	.037	25.0	20.1	3.60	Ø	CLEAR

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL, ICE	2 - 40 ML VIALS	Ø
TRPH	TRPH, ICE	2 - 1 LITER AMBER	Ø
PAH	Ø, ICE	2 - 1 LITER AMBER	Ø

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE

DO = 7.4 mg/L ORP = 171.6 mV

Fe = 0.00 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bransby
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW05GW
Sample Location: Site 1120 MW5
Sampled By: SB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 7/6/00 Time: 1628 Method: peristal/HZ	clear	5.55	.174	23.8	7.21	0.07	0.00	-123.0

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~ ORP
Date: 7/6/00								
Method: peristal/HZ	init.	5.59	.202	28.3	126	0.25	Ø	-100.5
Monitor Reading (ppm): —	0.65 gal	5.49	.184	24.1	76	0.13	Ø	-107.5
Well Casing Diameter & Material	1.30 gal	5.44	.172	~~37~~ 24.0	37.9	0.56	Ø	-71.9
Type: 2" PVC	1.95 gal	5.37	.171	23.9	33.7	0.15	Ø	-92.3
Total Well Depth (TD): 22.10	2.55 "	5.39	.172	23.9	15.6	0.10	Ø	-114.5
Static Water Level (WL): 17.92	3.20 "	5.47	.177	23.8	10.3	0.10	Ø	-120.6
One Casing Volume (gal/L): .7	3.85 "	5.55	.174	23.8	7.21	0.07	Ø	-123.0
Start Purge (hrs): 1555								
End Purge (hrs): 1626								
Total Purge Time (min): 31 min								
Total Vol. Purged (gal/L): ~3.85								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1L Amber	2
TRPH	H_2SO_4	1L Amber	2

OBSERVATIONS / NOTES:

rate = 500 mL/min - readings taken every 5 minutes
DO = 1.4 mg/L HS = 0.0 mg/L
Fe^{2+} = 3.30 mg/L (limit) ORP = -64.1 mV STRONG ODOR!

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	~~OLFBD001~~ OLFB20D001

SB 7/6

Signature(s):

OLFB20MW04GW
~~OLFBMW04GW~~ 7/12/00

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

7-7-00 OLF Bronson

Page 1 of 1

Project Site Name: ~~NAS Pensacola~~ 7-8-00
Project No.: 0401

Sample ID No.: OLFB20MW4GW 7/8/00
Sample Location: OLF BSITE 20
Sampled By: PDH
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 7/7/00	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1510								
Method: LOW FLOW/STRAW	Clear	6.05	.179	23.6	7.42	0.10	—	Clear

PURGE DATA:

Date: 7/7/00	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: LOW FLOW	INITIAL	5.99	.173	24.7	52.7	0.39	—	CLEAR
Monitor Reading (ppm): —	1440	6.10	.181	23.8	30.6	0.30	—	CLEAR
Well Casing Diameter & Material	1445	6.11	.180	23.7	18.5	0.24	—	CLEAR
Type: 2" PVC	1450	6.09	.180	23.7	12.5	0.17	—	CLEAR
Total Well Depth (TD): 22.40	1455	6.07	.179	23.5	9.06	0.12	—	CLEAR
Static Water Level (WL): 18.70	1500	6.05	.182	23.6	7.34	0.10	—	CLEAR
One Casing Volume(gal/L): .6	1505	6.05	.179	23.6	7.42	0.10	—	CLEAR
Start Purge (hrs): 1432								
End Purge (hrs): 1505								
Total Purge Time (min): 33								
Total Vol. Purged (gal/L): 2.50								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	2/40 ML	2
TRPH	H_2SO_4	2-1 LITER AMBER	2
PAH	6	2-1 LITER AMBER	2

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE IMMEDIATELY.
DO=7.4 mg/L ORP=-73.8 mV
Fe=2.50 mg/L HS=.60 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
		[signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: BRANSON
Project No.: 0401

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: 2LFR20/MW2/GW
Sample Location: SITE 20
Sampled By: DRW
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/8/00								
Time: 1140								
Method: LOW FLOW/STRAW	clear	5.65	.079	24.0	6.34	2.42	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/8/00								
Method: LOW FLOW	INITIAL	5.52	.071	23.7	54.9	1.66	—	CLEAR
Monitor Reading (ppm): —	1110	5.56	.073	23.6	28.2	1.79	—	CLEAR
Well Casing Diameter & Material	1115	5.60	.074	23.5	16.1	2.03	—	CLEAR
Type: 2" PVC	1120	5.62	.078	23.7	13.0	2.03	—	CLEAR
Total Well Depth (TD): 23.70	1125	5.64	.081	24.1	8.86	2.16	—	CLEAR
Static Water Level (WL): 19.69	1130	5.64	.080	24.0	7.36	2.24	—	CLEAR
One Casing Volume(gal/L): .66	1135	5.65	.079	24.0	6.34	2.42	—	CLEAR
Start Purge (hrs): 1100	~~1140~~							
End Purge (hrs): 1135	1145							
Total Purge Time (min): 35								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL, ICE	2 - 40 mL VIALS	2
TRPH	H_2SO_4, ICE	2 - 1000 mL AMBER	2
PAH	ICE	2 - 1000 mL AMBER	2

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE
DO=2.6 mg/L ORP=-91.3 mV
Fe=3.30 (limit) mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
		[signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson
Project No.: 0401

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB20MW03GW
Sample Location: Site 1120, MW-3
Sampled By: S. Barton
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP mV
Date: 7-7-00								
Time: 1535								
Method: peristaltic	cloudy	4.53	.037	23.7	450	2.79	Ø	-125.9

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP mV	
Date: 7-7-00									
Method: Peristaltic	initial	4.92	.091	25.7	>999	2.78	Ø	-160.6	~~1500~~ 1500
Monitor Reading (ppm): —	0.4gal.	4.74	.090	24.4	>999	2.91	Ø	-150.7	~~1505~~ 1505
Well Casing Diameter & Material	0.8gal.	4.64	.038	24.0	1000	2.53	Ø	-146.8	~~1510~~ 1510
Type: 2 in. PVC	1.2 "	4.60	0.038	23.9	800	2.48	Ø	-140.3	~~1515~~ 1515
Total Well Depth (TD): 23.27	~~23.27~~								
Static Water Level (WL): 20.29	~~20.29~~								
One Casing Volume (gal/L): 0.5	1.6gal	4.54	.037	23.9	700	2.47	Ø	-135.5	1520
Start Purge (hrs): 1500	2.1gal	4.53	.037	23.8	500	2.25	Ø	-132.6	~~1525~~
End Purge (hrs): 1530	2.5 "	4.53	.037	23.7	450	2.79	Ø	-125.9	1530
Total Purge Time (min): 30									
Total Vol. Purged (gal/L): 2.5									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8021)	HCL	2 40ml VOA	2
PAH (8310)	-	2 1L amber	2
TRPH (FL-PRO)	H_2SO_4	2 1L amber	2

OBSERVATIONS / NOTES:

pumping rate = 300 ml/min
DO = 7.0 mg/L ~~ORP = 88.3 mV~~ SB 7/7 > see above ORP
JE 7-7-00 ~~HS =~~
Fe^{2+} = 1.88 mg/L HS = color interference

Circle if Applicable:

MS/MSD	Duplicate ID No.: ~~OLFB20D0401~~ SB 7/7	Signature(s):