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NSA PANAMA CITY  
5090.3a

BROWN AND ROOT ENVIRONMENTAL RESPONSES TO FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION COMMENTS ON CONTAMINATION ASSESSMENT  
REPORT ADDENDUM FOR SITE G9 CSS PANAMA CITY FL

6/24/1997

BROWN AND ROOT ENVIRONMENTAL

7113-3.12-73



# Brown & Root Environmental

Foster Plaza VII  
661 Andersen Drive  
Pittsburgh, PA 15220-2745

(412) 921-7090  
FAX: (412) 921-4040

0020

BRE/TLH-97-644/7113/7.2.3

REC'D JUN 30 1997

June 24, 1997

Project Number 7113

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

Reference: Clean Contract No. N62467-94-D0888  
Contract Task Order No. 0008

Subject: Contamination Assessment Report Addendum for Site G9  
Coastal Systems Station  
Panama City, Florida

Dear Mr. Mitchell:

Pursuant to your Contamination Assessment Report (CAR) response letter, dated March 4, 1997, Brown & Root Environmental (B&R Environmental), on behalf of the Department of the Navy, Southern Division, Naval Facilities Engineering Command, has prepared this CAR Addendum letter report for the subject site. The CAR response letter is included as Attachment 1. Comments included in your letter are addressed below.

**1. The OVA concentrations included on Figure 2-1 do not match the Boring Samples in Appendix C for the Tank Closure Assessment for borings B-1 and B-3. Appendix C indicates non-detect at each of these borings. However, the figure shows an OVA reading of 220 ppm at 6 ft. for B-1 and 76 ppm at 50 feet for B-3. Which is correct?**

The soil OVA data presented in the Tank Closure Assessment is the correct data which indicated non-detect vapor concentrations at boring locations B-1 and B-3. Borings B-1 and B-3 terminated at 6 feet below land surface (bls). A revised Soil Hydrocarbon Vapor Concentration map is provided as Figure 1.



**2. The TRPH concentration of 10.7 ppm in monitoring well MW01 exceeds the state NFA level of 5 ppm. However, all other analytes were below action levels. I suggest resampling this well, and correcting any discrepancies in the document.**

On April 21, 1997, B&R Environmental collected an additional groundwater sample from monitoring well PCY-G9-MW01 for TRPH by EPA Method 418.1. During the sampling event, depth to water and total depth of the well were measured. Prior to sampling, approximately five well volumes of water were purged from the well using a peristaltic pump and tygon tubing. The peristaltic pump and tygon tubing apparatus were also used to extract a groundwater sample from the well. The sample collected was immediately placed on ice and shipped to Quality Analytical Laboratories in Montgomery, Alabama, for analysis. During the sampling event, quality control samples were prepared and submitted to the laboratory as required by the B&R Environmental Comprehensive Quality Assurance Plan approved by the FDEP.

The laboratory analysis of the groundwater sample collected from PCY-G9-MW01 reported a TRPH concentration of 2.62 micrograms per liter (mg/L). This concentration of TRPH is below the state NFA level of 5 ppm and is a 77 percent concentration reduction from the TRPH level identified in the groundwater sampling event conducted in July 1996. A summary of groundwater analytical results from the Contamination Assessment (CA) investigation are presented in Table 1. Groundwater field measurements collected during the April 21 sampling event and the laboratory data sheets are provided as Attachment 2.

**3. There was no groundwater contour map indicating groundwater flow direction. This should be included in all CARs or CAR Addendums submitted in the future.**

Water level measurements were collected from the site monitoring wells by B&R Environmental on July 12, 1996. Water level measurements were collected from the top of each well casing using an electronic water level indicator. Each top of casing was surveyed to the National Geodetic Vertical Datum (NGVD) 1929 by a Florida-licensed Professional Land Surveyor. Subtracting the depth to water level measurements from the well top of casing elevations provided the water table elevation relative to the NGVD. The July 12 depth to water level measurements and the water level elevations recorded for each well, are provided in Table 2. The water level field forms and elevation survey data are included in Attachment 3.

The July 12, 1996, water level data depicts a water table gradient toward the west, as shown on Figure 2. Groundwater flow is towards Alligator Bayou located west and to the south of the site.

### **Conclusions and Recommendations**

As identified in the CAR, no "excessively contaminated" soil as defined by Chapter 62-770.200, Florida Administrative Code, was encountered during the Tank Closure and Contamination Assessment (CA) investigations. During the investigation laboratory analysis from a groundwater sample collected at PCY-G9-MW01 detected TRPH above the State Action level of 5 ppm. All other groundwater parameters tested were reported below State Action Level. Subsequent groundwater sampling results of PCY-G9-MW01 report a decrease in the TRPH concentration below the State Action Level of 5 ppm. Based on the results of the CA, and the most recent groundwater quality results from PCY-G9-MW01, B&R Environmental recommends the site be granted a **No Further Action Status**.



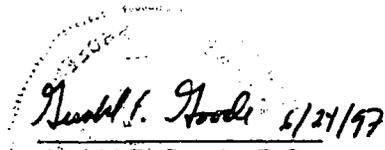
Mr. John Mitchell  
FDEP  
June 24, 1997 - Page 3

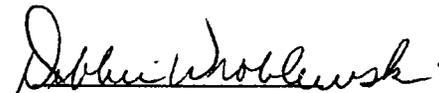
FINAL

If you have any questions or comments regarding these assessments or require further information, please do not hesitate to contact me at (904) 656-5458.

Sincerely,

Approved For Submission By:

  
Gerald F. Goode, P.G.  
Task Order Manager  
Florida License No. 0001276  
Brown & Root Environmental  
Tallahassee, Florida

  
Debbie Wroblewski  
Program Manager  
Brown & Root Environmental  
Pittsburgh, Pennsylvania

GG/ak

Enclosures (2)

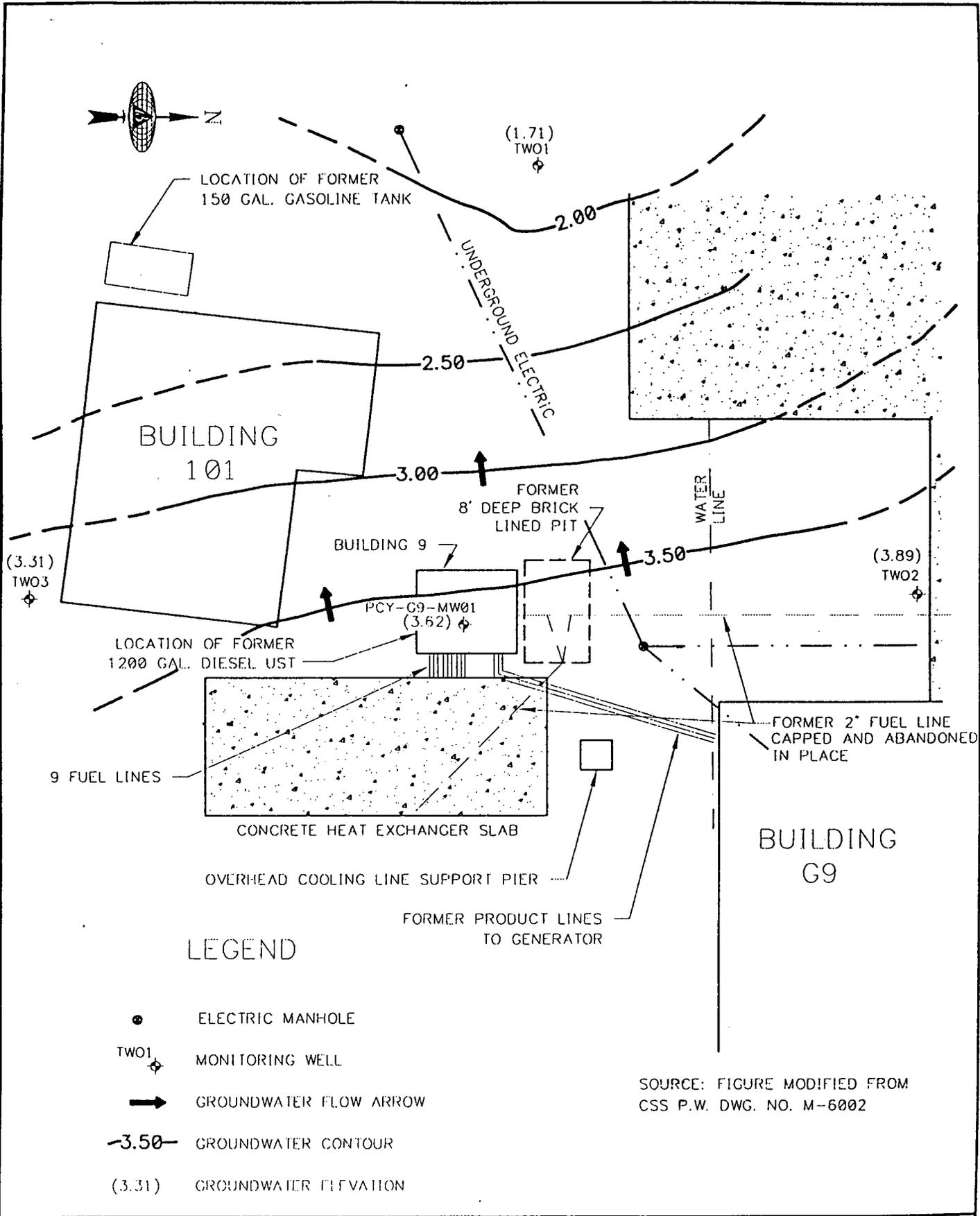
- c: Mr. N. Ugolini, SOUTHDIV (3 copies)  
Ms. D. Evens-Ripley, SOUTHDIV (w/o enclosure)  
Mr. A. McDonald, Coastal Systems Station (2 copies)  
Ms. R. Bauer, B&R Environmental (w/o enclosure)  
Mr. M. Perry, B&R Environmental (1 copy)

## FIGURES

**Figure 1: Soil Hydrocarbon Vapor Concentrations**

**Figure 2: Water Table Elevation Contour Map, July 12, 1996**





SITE MANAGER: GFG	CHECKED BY: RMC
DRAWN BY: GMF	DRAWING DATE: 5/23/97
SURVEYED BY:	SURVEY DATE:
SCALE: 1" = 8'-0"	
CAD DWG. NO.: 7113KMO2	PROJ. NO.: 7113

**Brown & Root Environmental**

**FIGURE 2**  
**WATER TABLE ELEVATION CONTOUR MAP**  
 JULY 12, 1996 (SITE 89)  
 COASTAL SYSTEMS STATION  
 PANAMA CITY, FLORIDA

## TABLES

**Table 1: Summary of Groundwater Quality**

**Table 2: Depth to Groundwater Measurements**

**TABLE 1**  
**SUMMARY OF GROUNDWATER QUALITY:**  
**SELECTED PARAMETERS FROM THE GASOLINE AND KEROSENE**  
**ANALYTICAL GROUP**  
**Site G9**  
**Coastal Systems Station, Panama City, Florida**  
**FDEP ID No. 038518667**

Well ID	Date Sampled	Benzene (µg/L)	Total VOA (µg/L)	MTBE (µg/L)	DCE (µg/L)	EDB (µg/L)	Napthelene (µg/L)	Total Naphthelenes (µg/L)	TRPH (mg/L)	Lead Unfiltered Samples (µg/L)
PCY-G9-MW01	07/12/96	<1.0	NCD	< 1.0	<1.0	<0.02	<20	NCD	10.7	20.1
	4/21/97	NA	NA	NA	NA	NA	NA	NA	2.62	NA
TW01	07/12/96	<1.0	NA	NA	NA	NA	<2	NCD	NA	NA
TW02	07/12/96	<1.0	NA	NA	NA	NA	<2	NCD	NA	NA
TW03	07/12/96	<1.0	NA	NA	NA	NA	<2	NCD	NA	NA
Trip Blank	07/12/96	<1.0	NCD	<1.0	<1.0	NA	NA	NA	NA	NA
Equipment Blank	07/12/96	< 1.0	1.2	< 1.0	<1.0	<0.02	<2	NCD	<0.05	0.79
	4/21/97	NA	NA	NA	NA	NA	NA	NA	0.15	NA

NA not analyzed  
 Total VOA total volatile organic aromatics = sum of benzene, toluene, ethylbenzene, and xylenes  
 MTBE methyl tert-butyl ether  
 DCE 1,2-Dichloroethane  
 EDB 1,2-Dibromoethane = ethylene dibromide  
 NCD no constituents detected  
 TRPH total petroluem hydrocarbons

**TABLE 2**  
**DEPTH TO GROUNDWATER MEASUREMENTS**  
**Site G9**  
**Coastal Systems Station, Panama City, Florida**  
**FDEP Facility No. 038518667**

<b>Monitoring Well ID</b>	<b>Date</b>	<b>Top of Well Casing Elevation (feet NGVD)</b>	<b>Free Product Thickness (feet)</b>	<b>Depth to Water (feet bls)</b>	<b>Water Table Elevation (feet NGVD)</b>	<b>Well Screen Interval (feet below land surface)</b>
PCY-G9-MW01	07/12/96	12.43	0.00	8.81	3.62	5 to 15
TW01	07/12/96	10.52	0.00	8.81	1.71	5 to 15
TW02	07/12/96	11.92	0.00	8.03	3.89	5 to 15
TW03	07/12/96	12.19	0.00	8.88	3.31	2 to 12

Notes: bls = below land surface  
ID = identification  
NGVD = elevation relative to the National Geodetic Vertical Datum 1929

**ATTACHMENT 1**

**FDEP CAR COMMENT LETTER DATED MARCH 4, 1997**

# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wethere  
Secretary

March 4, 1997

Mr. Nick Ugolini  
Code 184 (PVO)  
Southern Division  
Naval Facilities Engineering Command  
2155 Eagle Drive  
P.O. Box 190010  
North Charleston, South Carolina 29419-9010

RE: Contamination Assessment Report for Site G9  
Coastal Systems Station, Panama City, Florida  
Facility No. 035118667

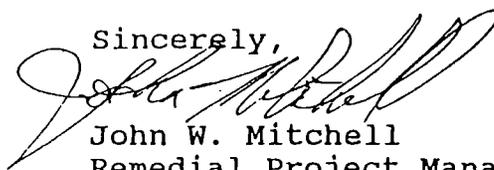
Dear Mr. Ugolini:

The Department has completed the technical review of the Contamination Assessment Report (CAR) dated December 1996 (received January 6, 1997), submitted for Site G9. I do not agree with the No Further Action (NFA) proposal for this site. The following comments need to be addressed, and a CAR addendum submitted.

1. The OVA concentrations indicated on Figure 2-1 do not match the Boring samples in Appendix Appendix C for the Tank Closure Assessment for borings B-1 and B-3. Appendix C indicates non-detect at each of these borings. However, the figure shows an OVA reading of 220 ppm at 6 ft. for B-1 and 76 ppm at 50 feet for B-3. Which is correct?
2. The TRPH concentration of 10.7 ppm in monitoring well MW01 exceeds the state NFA level of 5 ppm. However, all other analytes were below action levels. I suggest resampling this well, and correcting any discrepancies in the document.
3. There was no groundwater contour map indicating groundwater flow direction. This should be included in all CARs or CAR Addendums submitted in the future.

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

Mr. Nick Ugolini  
March 4, 1997  
CAR for Site G9  
Page 2

cc: Mike Cross, CSS Panama City  
Arturo MacDonald, CSS Panama City  
Gerald F. Goode, Brown and Root, Tallahassee  
Tom Moody, FDEP NW District

TJB B

JJC JJC

ESN ESN

**ATTACHMENT 2**

**LABORATORY DATA SHEETS AND GROUNDWATER  
SAMPLING AND MEASUREMENT FIELD FORMS**

**April 21, 1997 Sampling Event**

Sample ID Cross-reference Table

CH2M Hill Lab Sample ID	Client Sample ID	Collect Date	Sample Matrix	Additional Description
DUP = Duplicate; FB = Field Blank; FS = Field Sample; MSI = Matrix Spike, Inorganic				
MD461001	FS MWD1-002	04/21/97	Water	G9-GW
MD461002	FB MWD1-002B	04/21/97	Water	G9-GW

The above lab sample ID's and cross reference information apply to samples as received by the laboratory. Modifiers to the lab sample ID may be added for internal tracking purposes. Any modified sample ID will be reflected in the appropriate case narrative only.

# GENERAL CHEMISTRY

000001

CASE NARRATIVE  
GENERAL CHEMISTRY

QAL Lab Reference No./SDG. MD461

Project: Brown & Root Coastal Systems Station

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

All holding times were met.

III. METHOD

The method used is cited in the corresponding Form I.

IV. PREPARATION

Sample preparation proceeded normally, if applicable.

V. ANALYSIS

- A. Calibration : All acceptance criteria were met.
- B. Blanks: All acceptance criteria were met.
- C. Spikes: All acceptance criteria were met.
- D. Duplicates: The RPD was outside acceptance criteria. It was noted that the native and the duplicate samples differed considerably in appearance before the extractions had proceeded. The high RPD is attributed to this non-homogeneity between the native and duplicate samples before the extraction and analysis had proceeded.
- E. Laboratory Control Samples: All acceptance criteria were met.
- F. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and QAL, Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED:

Joe Basile  
Joe Basile

General Organic/Inorganic Supervisor

DATE:

5/14/97

Sample data

Report of Analytical Results

Client Sample ID: MW01-002  
 Sample Description: G9-GW  
 Sample Matrix: Water  
 Site: N/A

Date Collected: 04/21/97 15:45 (Mon)  
 Date Received: 04/22/97 10:00 (Tue)

Reference No: MD461  
 Lab Sample ID: MD461001

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
DEMAND AND GENERAL ORGANIC Total Petroleum Hydrocarbons	2.62	mg/L	0.05	05/07/97 00:00	EPA418.1

*[Signature]* (9655)

Report of Analytical Results

Client Sample ID: MW01-002B  
 Sample Description: G9-0W  
 Sample Matrix: Water  
 Site: N/A

Date Collected: 04/21/97 15:35 (Mon)  
 Date Received: 04/22/97 10:00 (Tue)

Reference No: MD461  
 Lab Sample ID: MD461002

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
DEMAND AND GENERAL ORGANIC Total Petroleum Hydrocarbons	0.15	mg/L	0.05	05/07/97 00:00	EPA418.1

(9655)

QC data

Initial and Continuing Calibration Verification  
GENERAL CHEMISTRY

Lab Reference No./SDG: MD461

Analytical Parameter	Conc. Units	INITIAL CALIBRATION			CONTINUING CALIBRATION			True	Found	% Rec.
		True	Found	% Rec.	True	Found	% Rec.			
Total Petroleum Hydrocarbons	mg/L	3.000	2.992	99.7	3.000	2.953	98.3			

Comments: Control Limits are 90-110% (except where noted).



Matrix Spike Sample Recovery  
GENERAL CHEMISTRY

Lab Reference No./SDG: MD461

Sample matrix: WATER  
% Solids (if soil):

Lab Sample ID: MD461001S  
Client Sample ID: MW01-002S

Analytical Parameter	Control Limit % Rec	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	% Rec.	Conc. Units
Total Petroleum Hydrocarbons	80-120	4.873	2.615	2.128	106.1	mg/L

COMMENTS:

Duplicates  
GENERAL CHEMISTRY

Lab Reference No./SDG: MD461

Sample matrix: WATER  
% Solids (if soil):

Lab Sample ID: MD461001D  
Client Sample ID: MW01-002D

Analytical Parameter	Control Limit	Sample (S)	Duplicate (D)	RPD	Conc. Units
Total Petroleum Hydrocarbons	20	2.615	4.686	56.7*	mg/L

COMMENTS: \* It was noted that the native and the duplicate samples differed considerably in appearance before the extractions had proceeded. The high RPD is attributed to this non-homogeneity between the native and duplicate samples before the extraction and analysis had proceeded.

Laboratory Control Sample  
GENERAL CHEMISTRY

Lab Reference No./SDG: MD461

Analytical Parameter	Conc. Units	True	Found	% Rec	True	Found	% Rec	Limits
Total Petroleum Hydrocarbons	mg/L	2.054	2.034	99.0				82-110

COMMENTS:



**Brown & Root  
Environmental**

455 FAIRWAY DRIVE, SUITE 200  
DEERFIELD BEACH, FLORIDA 33441  
(305) 570-5885 (305) 570-5974 (FAX)

SITE MANAGER: G. Goode  
PROJECT NAME: SITE # G-9  
BRE PROJECT NO.: 7113 CODE: \_\_\_\_\_  
P.O. NO.: 2049-7113-P96249

SHIPPED TO: \_\_\_\_\_ PAGE 1 OF 1  
Ch2m Hill Montgomery  
(LABORATORY NAME, CITY)

**CHAIN OF CUSTODY RECORD**

**LABORATORY ANALYSIS**

SAMPLED BY (PRINT): M. McCoy  
SAMPLER SIGNATURE: [Signature]

SAMPLE TYPE

PRES. TYPE

STANDARD TAT  RUSH  
 24 HR.  48 HR.  72 HR.  7 DAYS

RESULTS DUE DATE: \_\_\_\_\_

LAB NO.	DATE	TIME	SAMPLE IDENTIFICATION	MATRIX		PARAMETERS	NUMBER OF CONTAINERS	COMMENTS:
				COMP.	GRAB			
01	4-21	1545	G9-GW-mw01-002	X	GW	418.1	2	
02	4-21	1535	G9-GW-mw01-002B	X	W		2	
			EXTRA VOLUMES FOR MS AND MSD FOR LAB QA/QC	X			2	Coolers received Taped w/ lab Custody Seal
								One Cooler

TOTAL NUMBER OF CONTAINERS 6 6

EMPTY BOTTLES RELINQUISHED BY (SIGNATURE) ①	SEAL INTACT? YES NO N/A	DATE: _____ TIME: _____	EMPTY BOTTLES RECEIVED BY (SIGNATURE) ②	SEAL INTACT? YES NO N/A	DATE: <u>4-7-97</u> TIME: <u>1200</u>
RELINQUISHED BY (SIGNATURE) ③	SEAL INTACT? YES NO N/A	DATE: <u>4-22-97</u> TIME: <u>1000 CST</u>	RECEIVED BY (SIGNATURE) ④	SEAL INTACT? YES NO N/A	DATE: <u>4/22/97</u> TIME: <u>1000</u>
RELINQUISHED BY (SIGNATURE) ⑤	SEAL INTACT? YES NO N/A	DATE: _____ TIME: _____	RECEIVED BY (SIGNATURE) ⑥	SEAL INTACT? YES NO N/A	DATE: _____ TIME: _____

**SPECIAL INSTRUCTIONS:**

LABORATORY REMARKS: MD461

SAMPLE CONTAINERS PRECLEANED BY: <input type="checkbox"/> BRE <input type="checkbox"/> LABORATORY <input type="checkbox"/> MANUFACTURER	METHOD OF SHIPMENT: <u>Deliver by BRE</u>	BILL OF LADING NO.: _____
WHITE-FULLY EXECUTED COPY YELLOW-RECEIVING LABORATORY COPY PINK-SAMPLERS' COPY/QA COPY GREEN-ROD-SITE MANAGERS' COPY	SAMPLING TEAM: <u>M. McCoy</u>	RECEIVED FOR LABORATORY BY (SIGNATURE): <u>Paul Hunsaker</u> No. <u>0289</u>
		DATE: <u>4/22/97</u> TIME: <u>1000</u>

# Sample Receipt Record

Batch Number: MD461

Date received: 4/22/97

Client/Project: Brown & Root

**VERIFICATION OF SAMPLE CONDITIONS** (verify all items)

Observation	YES	NO
Were custody seals intact and on the outside of the cooler?	✓	
Was the Chain of Custody inside the cooler?	✓	
Was the Chain of Custody properly filled out?	✓	
Were the sample containers in good condition?	✓	
Was there ice in the cooler? Enter temperature of temperature blank or icewater: <span style="float: right;">4°C</span>	✓	

*If the answer to any of the questions above is NO, a Sample Receipt Exceptions Report must be written.*

**VERIFICATION OF SAMPLE PRESERVATION** (verify all preserved samples)

Sample No	Nutrients pH < 2	Metals pH < 2	Volatiles pH < 2	Cyanide pH > 12	Other (specify) <i>026</i>	Other (specify)
01					<i>02</i>	
02					<i>02</i>	
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

*Paul Menaulis*      LOGIN AND pH VERIFICATIONS PERFORMED BY  
*4/22/97*  
Date

Date

## Groundwater Measurement Field Forms

Brown & Root Environmental SAMPLING LOG Page    of   

BRE Project No: 7113 Date: 4/21/97 Sampler(s): M. McGay

Client Site ID: CTO.0008 Facility Address: Silo G9 Coastal System Station

Weather: Sunny 70°F Sampling Method: Teflon Bailor  N Other Percistaltic Pump SOP Cleaning  Y  N

Comments: Sample Collected Slightly Cloudy

GROUNDWATER SYSTEM PERFORMANCE AND QUALITY CONTROL SAMPLES								TEST PARAMETERS					
A	B	C	D	E	Sample ID	Time	Source	pH	Temp.	Sp. Cond.	Test Method	Container Type	Purpose, Type
							GWS Influent				A		
							GWS Effluent				B		
							Equipment Blank				C		
							Equipment Blank				D		
							Tap Water				E		
							Quemest 1						
							Quemest 1						
											Ø Total Debris		

GROUNDWATER SAMPLES										TO	Gig. Dia. (in)	OTW	Purge Vol. (g)	
					MW01	1355	GW	6.49	25.7	221	2"	14.75	9.71	1
					MW01	1400	GW	6.47	23.6	222				1
					MW01	1405	GW	6.61	23.8	227				1
					MW01	1410	GW	6.70	23.5	219				1

0.82 gallons = 1 well volume

UNITS: TEMPERATURE = DEGREES CELSIUS (°C) = STANDARD UNITS/SPECIFIC CONDUCTANCE = UMHO/CM

WELL CASING VOLUMES (GALLONS/FT OF SATURATED CASING, FOR 5x PURGE) 1.25" = 0.32 / 2" = 0.32 / 4" = 1.17 / 6" = 7.35

NOTE: A 3x PURGE IS OK FOR: 4" = 1.96 / 6" = 4.41 PROVIDED 3 CONSISTENT REPEAT FIELD METER READINGS ARE OBSERVED



**ATTACHMENT 3**

**SURVEY DATA FOR TOP OF WELL CASING ELEVATIONS  
AND GROUNDWATER MEASUREMENT FIELD FORMS**

**July 12, 1996 Sampling Event**

# WELL / BENCHMARK DATA TABULATION

WELL/BENCHMARK DESIGNATION OR OTHER ITEM	STATE PLANE COORDINATES						LATITUDE	LONGITUDE
	X	Y	Z					
			TOP COVER	RISER	SLAB	GROUND		
<b>HORIZONTAL CONTROL</b>								
RUSS 1935	1604618.4886950	434012.4537410	8.4842				30°11'14.981"N	85°45'05.167"W
PARK 1956/1977	1608191.9962400	415463.2443630	22.9232				30°08'11.763"N	85°44'22.156"W
HELO 1986	1604114.9014630	429718.2753790	7.8904				30°10'32.420"N	85°45'10.367"W
<b>SITE 323</b>								
BM323	1603956.9073200	429410.8603559	8.6700				30°10'29.360"N	85°45'12.128"W
PCY-323-MW01	1603834.5300300	429365.6486050	9.9150	9.4630			30°10'28.899"N	85°45'13.517"W
<b>SITE 333</b>								
BM333	1602823.1366800	428634.7829600	8.6746				30°10'21.554"N	85°45'24.947"W
PCY-333-MW01	1602743.7768900	428546.0496380	6.8876	6.6591			30°10'20.667"N	85°45'25.840"W
PCY-333-MW02	1602740.1794500	428592.5889750	6.7620	6.3949			30°10'21.128"N	85°45'25.887"W
PCY-333-MW03	1602776.8034600	428542.5501950	6.9487	6.5766			30°10'20.636"N	85°45'25.463"W
PCY-333-MW04	1602787.2068700	428578.2337840	8.0801	7.7554			30°10'20.991"N	85°45'25.349"W
TW01	1602772.5285600	428569.8394430		8.7024		7.2440	30°10'20.906"N	85°45'25.515"W
PCY-1-1S	1602770.5502200	428617.2222890	10.0849	9.4871	8.4159	7.9980	30°10'21.375"N	85°45'25.544"W
PCY-1-1	1602769.2105200	428622.7841980	10.7000	9.8020	8.4569	8.2660	30°10'21.430"N	85°45'25.560"W
PCY-1-1D	1602778.1287300	428624.2641470	10.6840	10.5200	8.7962	8.5330	30°10'21.445"N	85°45'25.458"W
<b>SITE 362</b>								
BM362	1603154.8394300	430592.6232320	14.7110				30°10'40.970"N	85°45'21.414"W
PCY-362-1	1603248.0053700	430593.9325020	15.7970	15.5380			30°10'40.993"N	85°45'20.353"W
PCY-362-2	1603158.7022400	430594.7873600	15.0670	14.8670			30°10'40.992"N	85°45'21.370"W
PCY-362-3	1603157.0502100	430667.3092260	15.4950	15.3550			30°10'41.710"N	85°45'21.398"W
PCY-362-4	1603263.9269900	430648.2132980	15.8170	15.6430			30°10'41.532"N	85°45'20.178"W
<b>SITE G9</b>								
BMG9	1603371.8755000	428356.2581660	8.3370				30°10'18.857"N	85°45'18.661"W
PCY-G9-MW01	1603413.0898900	428360.8019330	12.6940	12.4310			30°10'18.907"N	85°45'18.192"W
TW01	1603389.6660300	428358.8295370		10.2510		10.2390	30°10'18.884"N	85°45'18.459"W
TW02	1603409.7727800	428382.5483440		11.9270		11.7800	30°10'19.121"N	85°45'18.232"W
TW03	1603420.2955900	428331.5386820		12.1960		12.0100	30°10'18.618"N	85°45'18.106"W

NUU-13-1350 03.00 FRUIT DUT FRUITH CUT  
 10: JERRY GORRE 1/17/2000  
 FROM: JOE GOLDEN

**Groundwater Measurement Field Forms**







