

3R - 004

**ANNUAL
MONITORING
REPORT**

05/01/2009

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

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May 1, 2009

Mr. Glenn von Gonten, Senior Hydrologist
New Mexico Oil Conservation Division-NMOCD
Environmental Bureau
1220 St. Francis Drive
Santa Fe, New Mexico 87505

**Re: BP America Production Company
Groundwater Monitoring Report
Boyd GC # 1A, Unit A, Sec. 8, T31N, R10W, NMPM
San Juan County, New Mexico**

NMOCD Administrative/Environmental Order #: 3RP-4-0

Dear Mr. von Gonten:

BP America Production Company (**BP**) has retained Blagg Engineering, Inc. (**BEI**) to conduct environmental monitoring of groundwater at the Boyd GC #1A.

The last formal correspondence to NMOCD was conducted with letter dated, January 28, 2008. Since then, BP has followed its NMOCD approved groundwater management plan and continues to monitor the site. No permanent closure is requested at this time.

If you have any questions concerning the enclosed documentation, please contact either myself or Jeffrey C. Blagg at (505) 632-1199. Thank you for your cooperation and assistance.

Respectfully submitted:
Blagg Engineering, Inc.



Nelson J. Velez
Staff Geologist

Attachment: Groundwater Report (2 copies)

cc: Mr. Brandon Powell, Environmental Specialist, NMOCD District III Office, Aztec, NM
Mr. Larry Schlotterback, Environmental Coordinator, BP, Farmington, NM

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BP AMERICA PRODUCTION CO.
2009 MAY 11 AM 9 43

GROUNDWATER REMEDIATION REPORT

**BOYD GC #1A
(A) SECTION 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO**

**PREPARED FOR:
NEW MEXICO OIL CONSERVATION DIVISION
1220 ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87504**

APRIL 2009

**PREPARED BY:
BLAGG ENGINEERING, INC.**

**Consulting Petroleum / Reclamation Services
P.O. Box 87
Bloomfield, New Mexico 87413**

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NE/4, Sec. 8, T31N, R10W

Monitor Well Installation Dates: 10/31/2002 (MW #2), 12/13/2002 (MW #1, MW #3), 1/16/2003 (MW #4), 7/24/2006 (MW #5)

Monitor Well Sampling Dates: 4/15/08, 6/24/08, 8/27/08, 12/20/08

Site History:

Groundwater was encountered at a depth of approximately 24 feet below surface grade during excavation of impacted soils from a separator/dehydrator (sep/dehy) pit in July/August 1994. Impacted soils at a site compressor pit with a 21 barrel steel tank were encountered during pit closure activities in October 2002. Potential groundwater impact was identified within the compressor pit source area via installation of a monitor well in November 2002 (MW #2). Documentation for this work and subsequent groundwater monitoring data for the site have previously been submitted for New Mexico Oil Conservation Division (NMOCD) review. Continued annual and/or quarterly sampling and testing pursuant to BP's NMOCD approved groundwater management plan (GMP) was suggested within the report. The reporting herein is for site monitoring in 2008 only.

Groundwater Monitor Well Sampling Procedures:

Each monitor well was developed by hand-bailing, using new disposable bailers after installation. Prior to sample collections, each monitor well was purged approximately three (3) well bore volumes with new disposable bailers. The groundwater samples were collected following US EPA: SW-846 protocol, were placed into laboratory supplied containers with appropriate preservative, and stored in an ice chest for express delivery to an analytical laboratory for testing under strict chain-of-custody procedures. Analytical testing for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by US EPA Method 8021B or 8260 was conducted.

Fluids generated during monitor well development and purging was managed by discarding into the separator below-grade tank (BGT) located on the well site. The BGT contents are then disposed through approved NMOCD operational procedures for removal of produced fluids.

Groundwater Quality & Flow Direction Information:

Sampling of the groundwater monitor wells has been ongoing since November, 2002. Test results for MW #1, MW #3, and MW #5 were discussed in the previous annual report. Groundwater at the site of the prior compressor pit (MW #2) has tested benzene and total xylenes in excess of New Mexico Water Quality Control Commission (NMWQCC) standards since 2002. MW #4 has tested benzene levels fluctuating above and below NMWQCC standards since quarterly sampling was initiated in June 2003. A summary of BTEX laboratory analytical results is included within the table on the following pages. Field data sheets, laboratory reports, and laboratory quality assurance/quality control information are also included.

Groundwater contour maps of relative water table elevations have consistently been measure to flow in the west to northwest direction (Figure 2 through Figure 5). It was noted within the previous annual report, a significant fluctuation (4± feet) in seasonal depth to water levels is likely due to crop irrigation and ditch flow between April – October.

Summary and/or Recommendations:

Bi-annual sampling of MW #2 and the continuation of quarterly sampling of MW #4 is currently suggested unless circumstances dictate otherwise. This site will continue to have sampling and testing pursuant to BP's NMOCD approved GMP. If warranted, alternative remedial actions will be evaluated.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

REVISED DATE: January 8, 2009

FILENAME: (B1A-4Q08.WK4) NJV

BOYD GC # 1A

UNIT A, SEC. 8, T31N, R10W

BTEX EPA METHOD 8021B (ppb)

SAMPLE DATE	WELL NAME or No.	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb)			
								Benzene	Toluene	Ethyl Benzene	Total Xylene
04-Oct-02	GAINES	NA	NA					ND	ND	ND	ND
10-Aug-06		NA	NA					ND	ND	ND	ND
31-Oct-02	HARRIS	NA	NA					ND	ND	ND	ND
09-Jun-03	MW #1	23.31	29.50		700	6.96		ND	ND	ND	ND
20-Aug-03		19.00			900	7.21		ND	ND	ND	ND
11-Nov-03		22.84			900	7.17		ND	ND	ND	ND
27-May-04		26.49			900	6.80		ND	ND	ND	ND
28-Sep-04		19.59			900	7.20		ND	ND	ND	ND
13-Nov-02	MW #2	23.31	29.50		700	6.84		705	597	60	959
09-Jun-03		23.06			700	6.89		830	110	170	1,800
20-Aug-03		18.11			700	6.94		58	ND	60	800
27-May-04		26.76			1,000	6.67		940	ND	200	1,200
23-Jun-05		22.31			1,100	6.82		1,400	21	490	5,500
28-Jun-06		18.59			800	6.88		75	ND	ND	1,600
24-Jun-08		24.04			900	6.98		553	ND	117	1,590
27-Aug-08		22.41			700	6.81		410	ND	170	2,400
09-Jun-03	MW #3	26.46	29.50		600	6.92		ND	ND	ND	ND
20-Aug-03		23.11			900	7.08		ND	ND	ND	ND
11-Nov-03		26.23			900	7.17		ND	ND	ND	ND
28-Sep-04		23.17			800	7.17		ND	ND	ND	ND
09-Jun-03	MW #4	28.09	34.50		1,000	6.69		15	ND	4.5	0.75
20-Aug-03		25.26			1,000	6.80		460	71	100	88
11-Nov-03		28.08			1,000	7.00		270	ND	310	440
27-May-04		30.52			1,000	6.87		5.1	ND	14	51
28-Sep-04		25.13			700	6.91		140	ND	18	9.1
23-Jun-05		27.81			1,000	6.73		0.68	0.59	2.0	ND
20-Sep-05		27.28			800	6.70		120	3.4	120	130
28-Jun-06		26.96			900	6.80		ND	ND	ND	ND
15-Nov-06		28.74			800	7.08		29	ND	38	200
24-Jan-07		31.17			800	7.14		40	ND	140	1,300
18-Apr-07		32.44			800	6.98		ND	ND	1.6	ND
24-Jul-07		27.82			700	7.01		ND	ND	ND	ND
23-Oct-07		28.73			1,000	6.93		26	ND	20	120
15-Apr-08		32.09			800	7.11		1.0	ND	50.9	186
24-Jun-08		28.90			800	7.10		ND	ND	3.2	ND
27-Aug-08		27.68			900	7.15		ND	ND	ND	ND
20-Dec-08		29.54			800	7.21		120	ND	150.0	570
NMWQCC GROUNDWATER STANDARDS								10	750	750	620

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS
 SUBMITTED BY BLAGG ENGINEERING, INC.

BOYD GC # 1A
UNIT A, SEC. 8, T31N, R10W

REVISED DATE: January 8, 2009

FILENAME: (B1A-4Q08.WK4) NJV

SAMPLE DATE	WELL NAME or No.	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb)			
								Benzene	Toluene	Ethyl Benzene	Total Xylene
10-Aug-06	MW #5	23.90	36.30		1,100	6.84		23	ND	11	15
15-Nov-06		26.20			900	7.05		6.8	ND	2.9	ND
24-Jan-07		28.35			800	7.13		1.3	ND	ND	ND
18-Apr-07		29.29			900	6.90		ND	ND	ND	ND
24-Jul-07		25.25			1,500	6.74		ND	ND	ND	ND
NMWQCC GROUNDWATER STANDARDS								10	750	750	620

- NOTES :
- 1) GAINES WATER WELL CURRENTLY CATEGORIZED AS UP GRADIENT FROM MW # 2 .
 - 2) HARRIS WATER WELL CURRENTLY CATEGORIZED AS LATERAL GRADIENT FROM MW # 2 .
 - 3) MW # 2 LOCATED WITHIN COMPRESSOR PIT , IDENTIFIED WITH SOIL HYDROCARBON CONTAMINATION ON 10 / 2 / 02 .
 - 4) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .
 - 5) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PRECEDING SAMPLING EXCEEDED .
 - 6) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .

FIGURE 1

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THE SCHEMATIC ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.



WELL HEAD



BP AMERICA PRODUCTION COMPANY
 BOYD GC # 1A
 NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
 SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
 CONSULTING PETROLEUM / RECLAMATION SERVICES
 P.O. BOX 87
 BLOOMFIELD, NEW MEXICO 87413
 PHONE: (505) 632-1199

PROJECT: MW SAMPLING
 DRAFTED BY: NJV
 FILENAME: BOYD GC 1A-SM3.SKF
 REVISED: 04-21-09 NJV

SITE MAP

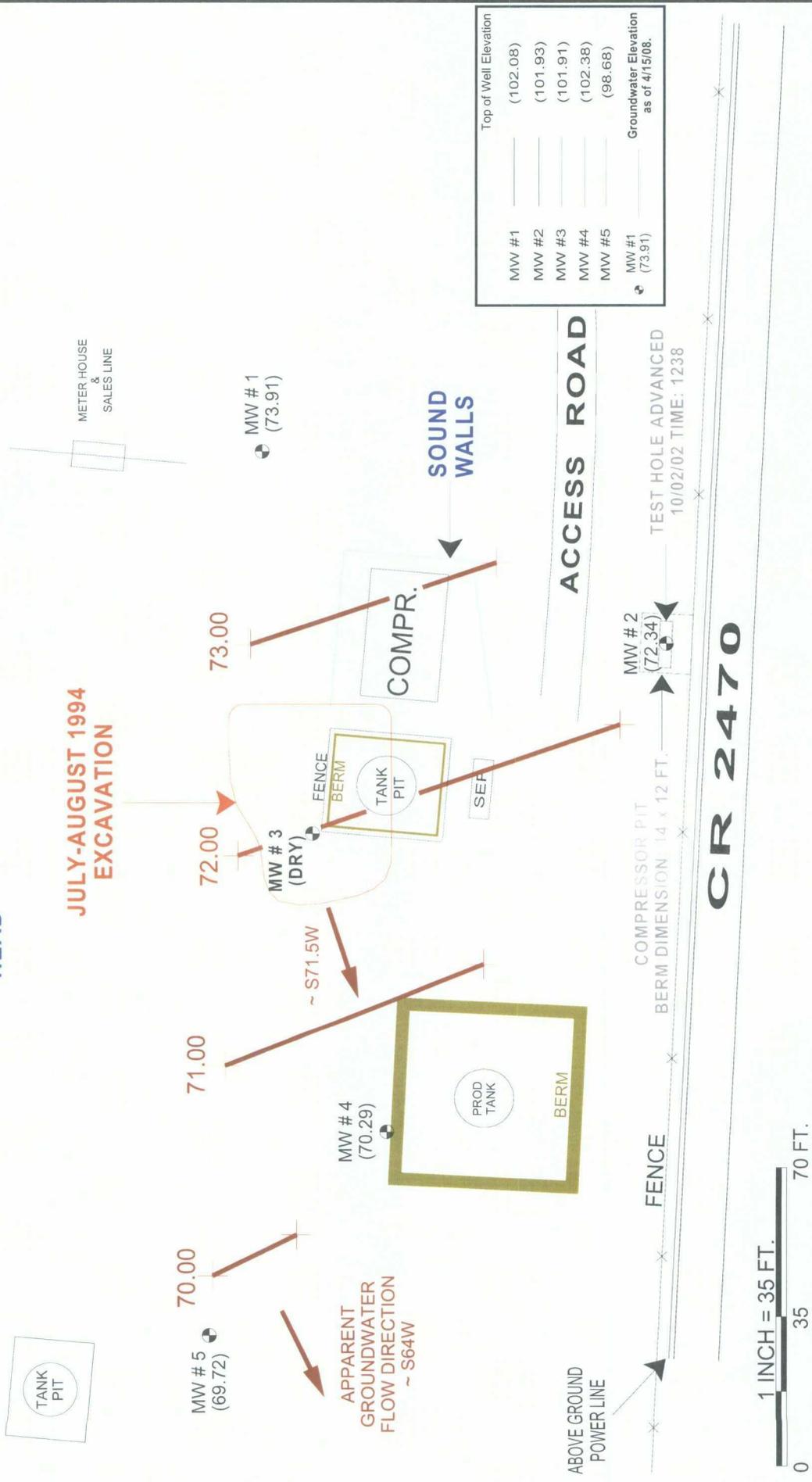
03/09

FIGURE 2

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THE SCHEMATIC ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.



WELL HEAD



GROUNDWATER CONTOUR MAP
04/08

PROJECT: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 04-15-08-GW.SKF
REVISED: 04-15-08 NJV

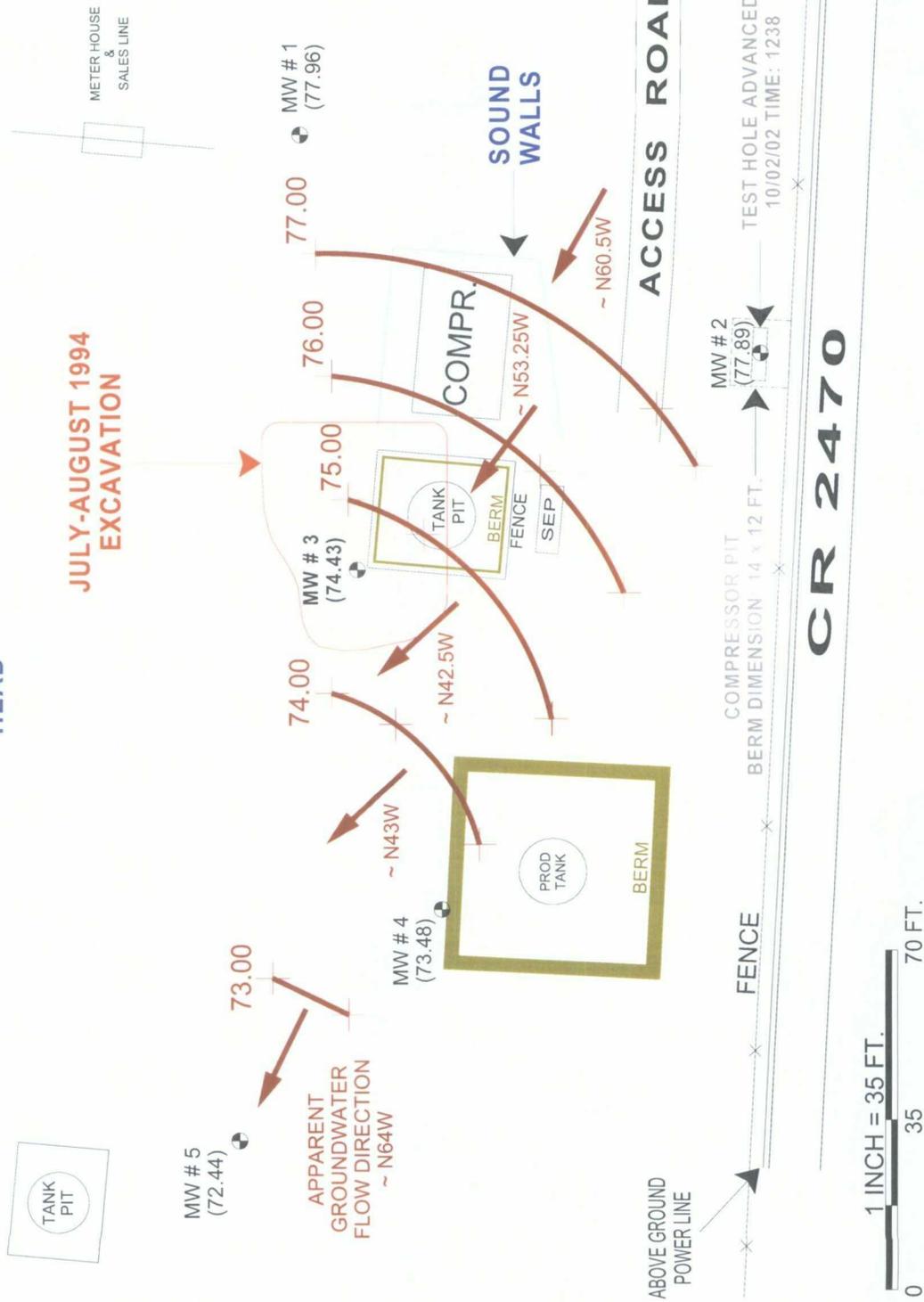
BLAGG ENGINEERING, INC.
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PHONE: (505) 632-1199

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

FIGURE 3

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (COPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THE SCHEMATIC ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

WELL HEAD



MW #	Top of Well Elevation
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)
MW #1 (77.96)	Groundwater Elevation as of 6/24/08.

BP AMERICA PRODUCTION COMPANY
 BOYD GC # 1A
 NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
 SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, I NC.
 CONSULTING PETROLEUM / RECLAMATION SERVICES
 P.O. BOX 87
 BLOOMFIELD, NEW MEXICO 87413
 PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 06-24-08-GW.SKF
REVISED: 06-25-08 NJV

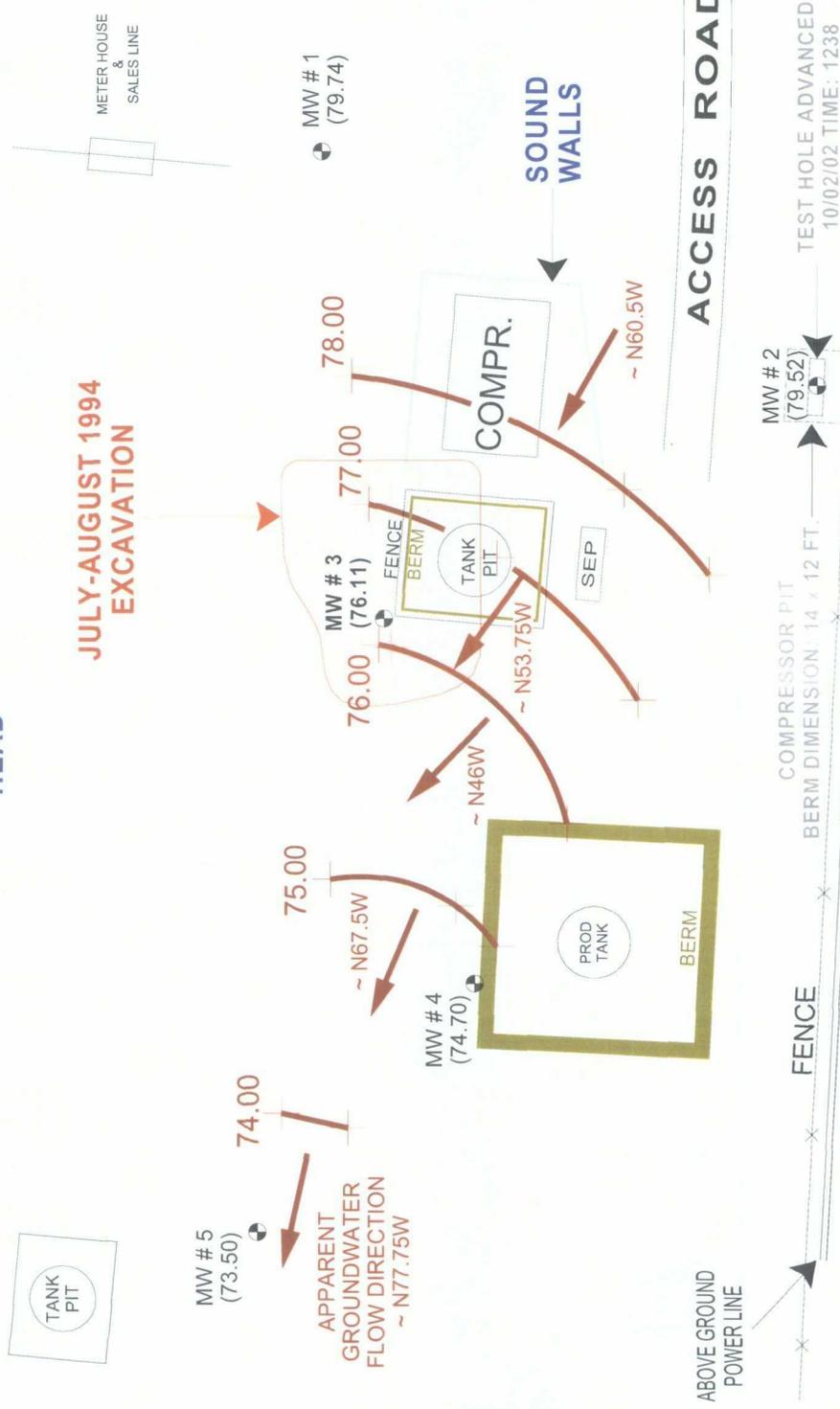
GROUNDWATER CONTOUR MAP
06/08

FIGURE 4

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THE SCHEMATIC ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.



WELL HEAD



MW #	Top of Well Elevation
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)
MW #1 (79.74)	Groundwater Elevation as of 8/27/08.

CR 2470

1 INCH = 35 FT.
0 35 70 FT.

GROUNDWATER CONTOUR MAP
08/08

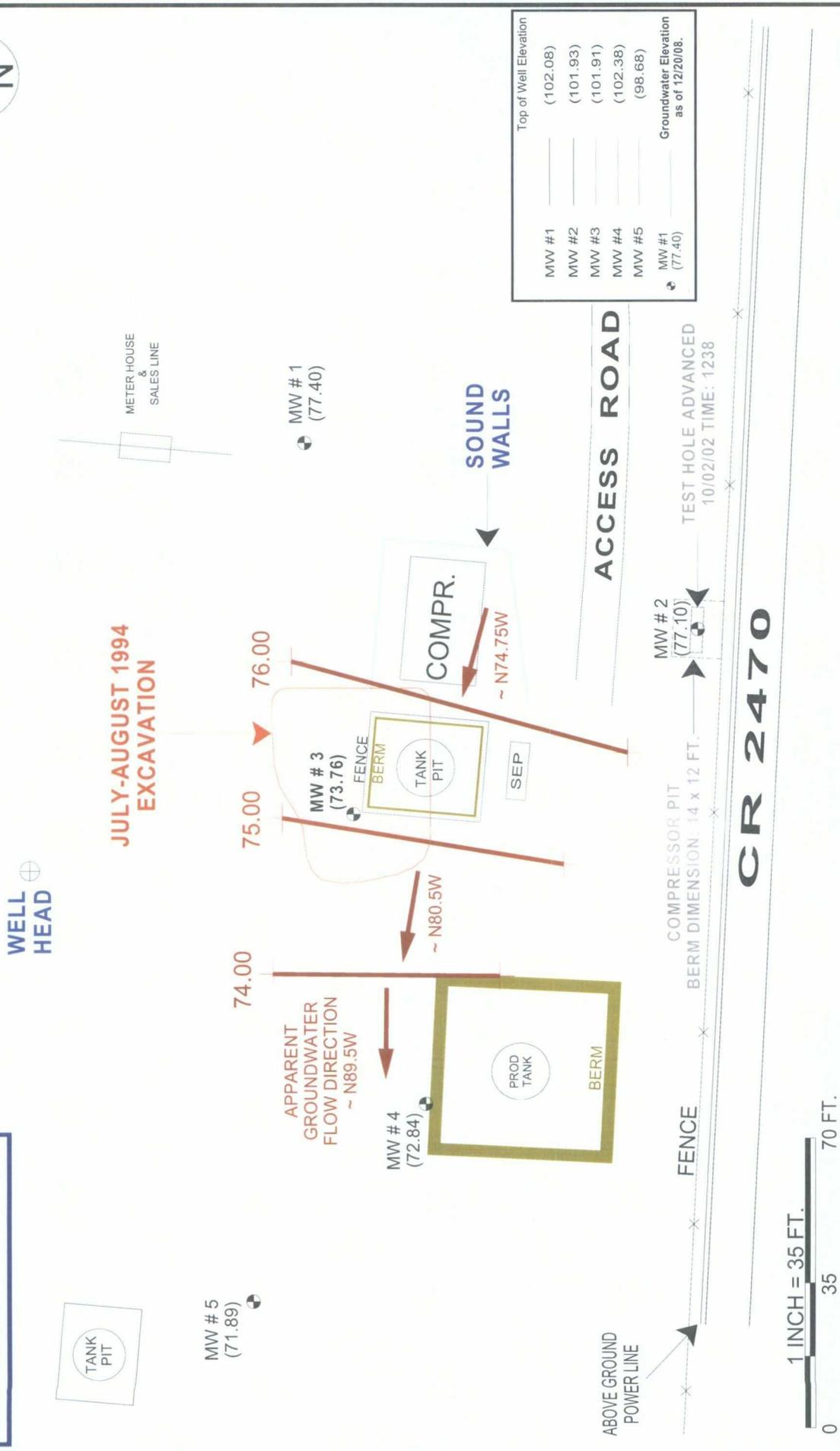
PROJECT: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 08-27-08-GW.SKF
REVISED: 08-28-08 NJV

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

FIGURE 5

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THE SCHEMATIC ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.



BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : 156397

BOYD GC # 1A - COMPRESSOR PIT UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : PACE ANALYTICAL

Date : April 15, 2008

SAMPLER : N J V

Filename : 04-15-08.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	73.91	28.17	29.50	-	-	-	-	-
MW - 2	101.93	72.34	29.59	29.50	-	-	-	-	-
MW - 3	101.91	-	DRY	29.50	-	-	-	-	-
MW - 4	102.38	70.29	32.09	34.50	1435	7.11	800	21.2	1.25
MW - 5	98.68	69.72	28.96	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	04/14/08	0800

NOTES : Volume of water purged from well prior to sampling; $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.
 (i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair recovery in MW # 4 . Purged to TD , then allowed recovery . Collected sample from MW # 4 for BTEX analysis only .

Top of casing MW # 1 ~ 2.20 ft . , MW # 2 ~ 2.50 ft . , MW # 3 ~ 2.00 ft . , MW # 4 ~ 3.05 ft . , MW # 5 ~ 2.20 ft . above grade .

ANALYTICAL RESULTS

Project: BOYD GC #1A
Pace Project No.: 6038713

Sample: MW #4 Lab ID: 6038713001 Collected: 04/15/08 14:35 Received: 04/16/08 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	1.0	ug/L	1.0	1		04/18/08 18:42	71-43-2	
Ethylbenzene	50.9	ug/L	1.0	1		04/18/08 18:42	100-41-4	
Toluene	ND	ug/L	1.0	1		04/18/08 18:42	108-88-3	
Xylene (Total)	186	ug/L	3.0	1		04/18/08 18:42	1330-20-7	
Dibromofluoromethane (S)	97	%	85-114	1		04/18/08 18:42	1868-53-7	
Toluene-d8 (S)	105	%	82-114	1		04/18/08 18:42	2037-26-5	
4-Bromofluorobenzene (S)	102	%	85-119	1		04/18/08 18:42	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-118	1		04/18/08 18:42	17060-07-0	
Preservation pH	1.0		1.0	1		04/18/08 18:42		

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156397

Chain of Custody Record

Project Name: BOYO GC #1A
 BP BU/AR Region/Enfos Segment: SAN JUAN CO SOUTH
 State or Lead Regulatory Agency: NMCCD
 Requested Due Date (mm/dd/yy): 4/29/08

Page 1 of 1
 On-site Time: 2:07 Temp: 77°F
 Off-site Time: 2:50 Temp: 78°F
 Sky Conditions: SLUNNY
 Meteorological Events:
 Wind Speed: 0-10 Gust: 7-10 Direction: SW

Lab Name: <u>PACE ANALYTICAL</u>		BP/AR Facility No.: <u>WR192144</u>		Consultant/Contractor: <u>BLAGG I WRS</u>	
Address: <u>9608 LOIRET BLVD.</u>		BP/AR Facility Address:		Address: <u>110 N. FORESTA ST.</u>	
<u>LENEXA, KS 66219</u>		Site Lat/Long:		<u>BLOOMFIELD, NM 87413</u>	
Lab PM: <u>MARY JANE WALLS</u>		California Global ID No.:		Consultant/Contractor Project No.: <u>41008710</u>	
Tele/Fax: <u>(913)599-3665 FAX: (913)599-1759</u>		Enfos Project No.: <u>00188</u>		Consultant/Contractor PM: <u>NELSON VELEZ</u>	
BP/AR PM Contact: <u>MIKE WHELAN, PG</u>		Provision or RCOP (circle one)		Tele/Fax: <u>(505)632-1199 FAX: (505)632-3903</u>	
Address: <u>501 WESTLAKE PARK BLVD.</u>		Phase/WBS:		Report Type & QC Level: <u>STANDARD</u>	
<u>Rm. 28.144B Houston TX 77079</u>		Sub Phase/Task:		E-mail EDD To: <u>blagg@pacanalytical.com</u>	
Tele/Fax: <u>(281)366-7488 FAX: (281)366-7094</u>		Cost Element: <u>01</u>		Invoice to: Consultant or BP of Atlantic Richfield Co. (circle one)	
Lab Bottle Order No.: <u>15752</u>		Laboratory No.		Requested Analysis	
Item No.	Sample Description	Time	Date	Matrix	Requested Analysis
1	<u>MW #4</u>	<u>1435</u>	<u>4/15/08</u>	<u>Water/Liquid</u>	<u>EPA 8270</u>
2	<u>BLAGG</u>			<u>Soil/Solid</u>	<u>EPA 8260</u>
3				<u>Air</u>	<u>BTEX/TPH</u>
4					<u>BTEX/TPH</u>
5					<u>BTEX 8021</u>
6					<u>Unpreserved</u>
7					<u>H₂SO₄</u>
8					<u>HCl</u>
9					<u>Methanol</u>
10					<u>Preservative</u>
Sampler's Name: <u>NELSON VELEZ</u>		Relinquished By / Affiliation		Date	
Sampler's Company: <u>BLAGG ENGINEERING, INC.</u>		<u>Nelson V</u>		<u>4/15/08</u>	
Shipment Date: <u>APRIL 15, 2008</u>		Time		Accepted By / Affiliation	
Shipment Method: <u>FED EX OVERNITE</u>				<u>SS</u>	
Shipment Tracking No.: <u>4994348726</u>				Date	
Special Instructions: <u>REPORT BTEX CONSTITUENTS ONLY.</u>				<u>4/16</u>	
				Time	
				<u>8:30</u>	
Custody Seals In Place Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Temp Blank Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Cooler Temperature on Receipt <u>0.7°F</u>	
				Trip Blank Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

SAN JUAN COUNTY, NM

6038713

3(DG-CHK) 651

Nelson V

REPORT BTEX CONSTITUENTS ONLY.

SAMPLE SUMMARY

Project: BOYD GC #1A
Pace Project No.: 6038713

Lab ID	Sample ID	Matrix	Date Collected	Date Received
6038713001	MW #4	Water	04/15/08 14:35	04/16/08 08:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: BOYD GC #1A
Pace Project No.: 6038713

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6038713001	MW #4	EPA 8260	GEZ	9

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: BOYD GC #1A
Pace Project No.: 6038713

Method: EPA 8260
Description: 8260 MSV UST, Water
Client: BP-Blagg Engineering
Date: April 23, 2008

General Information:

1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BOYD GC #1A
Pace Project No.: 6038713

QC Batch: MSV/14089 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 6038713001

METHOD BLANK: 314296
Associated Lab Samples: 6038713001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Benzene	ug/L	ND	1.0	
Ethylbenzene	ug/L	ND	1.0	
Toluene	ug/L	ND	1.0	
Xylene (Total)	ug/L	ND	3.0	
1,2-Dichloroethane-d4 (S)	%	97	81-118	
4-Bromofluorobenzene (S)	%	92	85-119	
Dibromofluoromethane (S)	%	101	85-114	
Toluene-d8 (S)	%	101	82-114	

LABORATORY CONTROL SAMPLE: 314297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	10	10.7	107	87-117	
Ethylbenzene	ug/L	10	11.1	111	84-123	
Toluene	ug/L	10	11.0	110	81-124	
Xylene (Total)	ug/L	30	32.4	108	83-125	
1,2-Dichloroethane-d4 (S)	%			95	81-118	
4-Bromofluorobenzene (S)	%			95	85-119	
Dibromofluoromethane (S)	%			99	85-114	
Toluene-d8 (S)	%			103	82-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 314298 314299

Parameter	Units	6038782001		MSD		MSD		% Rec		Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Benzene	ug/L	ND	10	10	10.3	9.7	101	96	30-162	6	22		
Ethylbenzene	ug/L	ND	10	10	9.3	9.8	92	96	37-154	4	18		
Toluene	ug/L	ND	10	10	9.8	10.6	93	101	49-143	8	20		
Xylene (Total)	ug/L	ND	30	30	28.9	30.2	91	96	32-154	4	15		
1,2-Dichloroethane-d4 (S)	%						113	115	81-118				
4-Bromofluorobenzene (S)	%						95	100	85-119				
Dibromofluoromethane (S)	%						106	108	85-114				
Toluene-d8 (S)	%						97	101	82-114				
Preservation pH		1.0			1.0	1.0					0		

QUALIFIERS

Project: BOYD GC #1A

Pace Project No.: 6038713

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOYD GC #1A

Pace Project No.: 6038713

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6038713001	MW #4	EPA 8260	MSV/14089		



Sample Condition Upon Receipt

Client Name: BP BLACC

Project # 6038713

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used T-168 / ~~T-169~~ Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0-7 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Optional
Proj. Due Date: <u>4/28/08</u>
Proj. Name: <u>Bay d GC #1A</u>

Date and Initials of person examining contents: <u>SW 4/16</u> <u>S: 1511 E: 1522</u>
--

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: <u>VOA</u> coliform, TOC, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>031708</u>		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: MW 4/16/08

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

**BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W**

LABORATORY (S) USED : PAGE ANALYTICAL

Date : June 24, 2008

SAMPLER : N J V

Filename : 06-24-08.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	77.96	24.12	29.50	-	-	-	-	-
MW - 2	101.93	77.89	24.04	29.50	1420	6.98	900	21.6	2.75
MW - 3	101.91	74.43	27.48	29.50	-	-	-	-	-
MW - 4	102.38	73.48	28.9	34.50	1335	7.10	800	21.2	1.75
MW - 5	98.68	72.44	26.24	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	06/23/08	0634

NOTES : Volume of water purged from well prior to sampling; $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3$ (wellbores).
 (i.e. 2" MW $r = (1/12)$ ft. $h = 1$ ft.) (i.e. 4" MW $r = (2/12)$ ft. $h = 1$ ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2".

Fair recovery in MW # 2 & # 4 . Purged to TD , then allowed recovery . Collected samples from MW # 2 & # 4 for BTEX analysis only .

Top of casing MW # 1 ~ 2.20 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.00 ft. , MW # 4 ~ 3.05 ft. , MW # 5 ~ 2.20 ft. above grade .

on-site	<u>12:57</u>	temp	<u>93 F</u>
off-site	<u>2:45</u>	temp	<u>93 F</u>
sky cond.	<u>Sunny</u>		
wind speed	<u>0-5</u>	direct.	<u>West</u>

ANALYTICAL RESULTS

Project: BOYD GC 1A
Pace Project No.: 6042423

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW #2		Lab ID: 6042423002	Collected: 06/24/08 14:20	Received: 06/25/08 09:00	Matrix: Water			
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	553 ug/L		10.0	10		06/27/08 14:00	71-43-2	
Ethylbenzene	117 ug/L		10.0	10		06/27/08 14:00	100-41-4	
Toluene	ND ug/L		10.0	10		06/27/08 14:00	108-88-3	
Xylene (Total)	1590 ug/L		30.0	10		06/27/08 14:00	1330-20-7	
Dibromofluoromethane (S)	91 %		85-114	10		06/27/08 14:00	1868-53-7	
Toluene-d8 (S)	98 %		82-114	10		06/27/08 14:00	2037-26-5	
4-Bromofluorobenzene (S)	100 %		85-119	10		06/27/08 14:00	460-00-4	
1,2-Dichloroethane-d4 (S)	89 %		81-118	10		06/27/08 14:00	17060-07-0	
Preservation pH	1.0		1.0	10		06/27/08 14:00		

ANALYTICAL RESULTS

Project: BOYD GC 1A
Pace Project No.: 6042423

Sample: MW #4 Lab ID: 6042423001 Collected: 06/24/08 13:35 Received: 06/25/08 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		06/27/08 13:44	71-43-2	
Ethylbenzene	3.2	ug/L	1.0	1		06/27/08 13:44	100-41-4	
Toluene	ND	ug/L	1.0	1		06/27/08 13:44	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/27/08 13:44	1330-20-7	
Dibromofluoromethane (S)	91	%	85-114	1		06/27/08 13:44	1868-53-7	
Toluene-d8 (S)	98	%	82-114	1		06/27/08 13:44	2037-26-5	
4-Bromofluorobenzene (S)	103	%	85-119	1		06/27/08 13:44	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	81-118	1		06/27/08 13:44	17060-07-0	
Preservation pH	1.0		1.0	1		06/27/08 13:44		

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record
 Project Name: BOYD GC 1A
 BP BU/AR Region/Enfos Segment: STOC SOUTH
 State or Lead Regulatory Agency: NMDCD

Requested Due Date (mm/dd/yy): 2/1/08

On-site Time: 12:57 Temp: 93°F
 Off-site Time: 2:45 Temp: 93°F
 Sky Conditions: SWIRY
 Meteorological Events:
 Wind Speed: 0-5 Direction: WEST

Lab Name: Pace Analytical Services, Inc.		BP/AR Facility No.:		Consultant/Contractor: Blagg/URS														
Address: 9609 Loiret Blvd		BP/AR Facility Address:		Address: 110 N. Forth St.														
Lenexa, KS 66219		Site Lat/Long:		Bloomfield, NM 87413														
Lab PM: MJ Walls		California Global ID No.:		Consultant/Contractor Project No.:														
Tele/Fax: 913-563-1401		Enfos Project No.:		Consultant/Contractor PM: Nelson Velez														
BP/AR EMB: Mike Whelan		Provision or OOC (circle one)		Tele: (505) 632-1199 Fax: (505) 632-3903														
Addn ess: 501 Westlake Park Blvd.		Phase/WBS:		Report Type & QC Level: STD														
Rm28, 144B Houston, TX 77079		Sub Phase/Task:		E-Mail EDD To: blagg-nj@yahoo.com														
Tele: (281) 366-7485		Cost Element:		Invoice to: Consultant or BP or Atlantic Richfield Co. (circle one)														
Lab Bottle Order No: 17702		Fax: (281) 366-7094																
Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis	Accepted By / Affiliation	Date	Time	
				Air	Water/Liquid	Soil/Solid			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol					BTEX (8260)
1	PLW #4	1335	6/24/08	✓				3	✓									
2	PLW #2	1420	6/24/08	✓				3	✓									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
Sampler's Name: Nelson Velez		Relinquished By / Affiliation		Date		Time		Accepted By / Affiliation		Date		Time						
Sampler's Company: Blagg Engr., Inc.		Nelson Velez		6/24/08		16:45				6/25		10:00						
Shipment Date: 6/24/08																		
Shipment Method: FedEx																		
Shipment Tracking No: 8643 6004 9420																		
Special Instructions: REPORT BTEX CONSTITUENTS ONLY.																		
Custody Seals In Place: (Yes/No)		Temp Blank: (Yes/No)		Cooler Temp on Receipt: 5.5 °F/C		Trip Blank: (Yes/No)		MS/MSD Sample Submitted: Yes (No)										

6042423

Sample Point Lat/Long and Comments

JAN TIAN COUNTY, N.M.

SAMPLE SUMMARY

Project: BOYD GC 1A

Pace Project No.: 6042423

Lab ID	Sample ID	Matrix	Date Collected	Date Received
6042423001	MW #4	Water	06/24/08 13:35	06/25/08 09:00
6042423002	MW #2	Water	06/24/08 14:20	06/25/08 09:00

REPORT OF LABORATORY ANALYSIS

Page 2 of 9

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SAMPLE ANALYTE COUNT

Project: BOYD GC 1A
Pace Project No.: 6042423

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6042423001	MW #4	EPA 8260	JKL	9
6042423002	MW #2	EPA 8260	JKL	9

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: BOYD GC 1A
Pace Project No.: 6042423

Method: EPA 8260
Description: 8260 MSV UST, Water
Client: BP-Blagg Engineering
Date: July 01, 2008

General Information:

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/15397

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BOYD GC 1A
Pace Project No.: 6042423

QC Batch: MSV/15397 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 6042423001, 6042423002

METHOD BLANK: 344792

Associated Lab Samples: 6042423001, 6042423002

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Benzene	ug/L	ND	1.0	
Ethylbenzene	ug/L	ND	1.0	
Toluene	ug/L	ND	1.0	
Xylene (Total)	ug/L	ND	3.0	
1,2-Dichloroethane-d4 (S)	%	93	81-118	
4-Bromofluorobenzene (S)	%	106	85-119	
Dibromofluoromethane (S)	%	95	85-114	
Toluene-d8 (S)	%	104	82-114	

LABORATORY CONTROL SAMPLE: 344793

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	10	8.9	89	87-117	
Ethylbenzene	ug/L	10	9.8	98	84-123	
Toluene	ug/L	10	9.5	95	81-124	
Xylene (Total)	ug/L	30	28.3	94	83-125	
1,2-Dichloroethane-d4 (S)	%			94	81-118	
4-Bromofluorobenzene (S)	%			96	85-119	
Dibromofluoromethane (S)	%			94	85-114	
Toluene-d8 (S)	%			101	82-114	

QUALIFIERS

Project: BOYD GC 1A
Pace Project No.: 6042423

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

BATCH QUALIFIERS

Batch: MSV/15397

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOYD GC 1A
Pace Project No.: 6042423

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6042423001	MW #4	EPA 8260	MSV/15397		
6042423002	MW #2	EPA 8260	MSV/15397		



Sample Condition Upon Receipt

Client Name: BP BLACC

Project # 0042423

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 0N 60C

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used T-169 / ~~179~~

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 3.5

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Optional
Proj. Due Date:
Proj. Name: <u>7/8</u>
<u>Boyd SC IA</u>
Date and Initials of person examining contents: <u>BW 6/25</u>
<u>5:1006</u> <u>1015</u>

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>4 DAY</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: MW 6/26/08 Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 27, 2008

SAMPLER : N J V

Filename : 08-27-08.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	79.74	22.34	29.50	-	-	-	-	-
MW - 2	101.93	79.52	22.41	29.50	0930	6.81	700	16.5	1.75
MW - 3	101.91	76.11	25.80	29.50	-	-	-	-	-
MW - 4	102.38	74.70	27.68	34.50	0850	7.15	900	17.2	3.50
MW - 5	98.68	73.50	25.18	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	08/25/08	0730

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.
 (i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2".

Excellent recovery in MW # 4 , poor / fair in MW # 2 . Purged MW # 2 to TD , then allowed recovery .
Collected samples from MW # 2 & # 4 for BTEX analysis only .

Top of casing MW # 1 ~ 2.20 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.00 ft. , MW # 4 ~ 3.05 ft. , MW # 5 ~ 2.20 ft. above grade .

on-site	8:10	temp	65
off-site	9:45	temp	75
sky cond.	Mostly sunny		
wind speed	0-5	direct.	East

Hall Environmental Analysis Laboratory, Inc.

Date: 09-Sep-08

CLIENT: Blagg Engineering
 Project: Boyd GC #1A

Lab Order: 0808455

Lab ID: 0808455-01

Collection Date: 8/27/2008 9:30:00 AM

Client Sample ID: MW #2

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	410	10		µg/L	10	9/6/2008 4:25:35 PM
Toluene	ND	10		µg/L	10	9/6/2008 4:25:35 PM
Ethylbenzene	170	10		µg/L	10	9/6/2008 4:25:35 PM
Xylenes, Total	2400	40		µg/L	20	9/8/2008 5:39:49 PM
Surr: 4-Bromofluorobenzene	110	65.9-130		%REC	10	9/6/2008 4:25:35 PM

Lab ID: 0808455-02

Collection Date: 8/27/2008 8:50:00 AM

Client Sample ID: MW #4

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	9/6/2008 4:55:48 PM
Toluene	ND	1.0		µg/L	1	9/6/2008 4:55:48 PM
Ethylbenzene	ND	1.0		µg/L	1	9/6/2008 4:55:48 PM
Xylenes, Total	ND	2.0		µg/L	1	9/6/2008 4:55:48 PM
Surr: 4-Bromofluorobenzene	93.2	65.9-130		%REC	1	9/6/2008 4:55:48 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Blagg Engineering
 Project: Boyd GC #1A

Work Order: 0808455

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 6ML RB		<i>MBLK</i>							
					Batch ID: R30092	Analysis Date:		9/5/2008 9:01:25 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: B		<i>MBLK</i>							
					Batch ID: R30121	Analysis Date:		9/8/2008 11:06:35 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		<i>LCS</i>							
					Batch ID: R30092	Analysis Date:		9/6/2008 5:56:41 PM	
Benzene	17.37	µg/L	1.0	86.9	85.9	113			
Toluene	16.25	µg/L	1.0	81.2	86.4	113			S
Ethylbenzene	17.54	µg/L	1.0	87.7	83.5	118			
Xylenes, Total	52.19	µg/L	2.0	87.0	83.4	122			
Sample ID: 100NG BTEX LCSD		<i>LCSD</i>							
					Batch ID: R30092	Analysis Date:		9/6/2008 6:27:14 PM	
Benzene	17.39	µg/L	1.0	87.0	85.9	113	0.115	27	
Toluene	16.48	µg/L	1.0	82.4	86.4	113	1.39	19	S
Ethylbenzene	17.67	µg/L	1.0	88.4	83.5	118	0.738	10	
Xylenes, Total	52.43	µg/L	2.0	87.4	83.4	122	0.455	13	

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG

Date Received:

8/28/2008

Work Order Number 0808455

Received by: AT

Checklist completed by:

Signature

8/28/08

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes

No

Not Present

Custody seals intact on shipping container/cooler?

Yes

No

Not Present

Not Shipped

Custody seals intact on sample bottles?

Yes

No

N/A

Chain of custody present?

Yes

No

Chain of custody signed when relinquished and received?

Yes

No

Chain of custody agrees with sample labels?

Yes

No

Samples in proper container/bottle?

Yes

No

Sample containers intact?

Yes

No

Sufficient sample volume for indicated test?

Yes

No

All samples received within holding time?

Yes

No

Water - VOA vials have zero headspace?

No VOA vials submitted

Yes

No

Water - Preservation labels on bottle and cap match?

Yes

No

N/A

Water - pH acceptable upon receipt?

Yes

No

N/A

Container/Temp Blank temperature?

1°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & /OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : December 20, 2008

SAMPLER : N J V

Filename : 12-20-08.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	77.40	24.68	29.50	-	-	-	-	-
MW - 2	101.93	77.10	24.83	29.50	-	-	-	-	-
MW - 3	101.91	73.76	28.15	29.50	-	-	-	-	-
MW - 4	102.38	72.84	29.54	34.50	1140	7.21	800	11.2	1.75
MW - 5	98.68	71.89	26.79	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	12/19/08	1515

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.
 (i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2".

Fair / good recovery in MW # 4 . Collected sample from MW # 4 for BTEX analysis only .

Top of casing MW # 1 ~ 2.20 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.00 ft. , MW # 4 ~ 3.05 ft. , MW # 5 ~ 2.20 ft. above grade .

on-site	10:59	temp	38 F
off-site	11:56	temp	42 F
sky cond.	Mostly cloudy		
wind speed	0-5	direct.	West

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jan-09

CLIENT: Blagg Engineering
 Lab Order: 0812496
 Project: Boyd GC #1A
 Lab ID: 0812496-01

Client Sample ID: MW #4
 Collection Date: 12/20/2008 11:40:00 AM
 Date Received: 12/23/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	120	5.0		µg/L	5	1/1/2009 11:30:56 AM
Toluene	ND	1.0		µg/L	1	12/30/2008 5:19:50 PM
Ethylbenzene	150	5.0		µg/L	5	1/1/2009 11:30:56 AM
Xylenes, Total	570	10		µg/L	5	1/1/2009 11:30:56 AM
Surr: 4-Bromofluorobenzene	98.2	65.9-130		%REC	1	12/30/2008 5:19:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Blagg Engineering
 Project: Boyd GC #1A

Work Order: 0812496

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

MBLK

Batch ID: R31821 Analysis Date: 12/30/2008 9:43:24 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R31821 Analysis Date: 12/30/2008 7:54:57 PM

Benzene	21.74	µg/L	1.0	109	85.9	113			
Toluene	21.32	µg/L	1.0	107	86.4	113			
Ethylbenzene	20.84	µg/L	1.0	104	83.5	118			
Xylenes, Total	61.77	µg/L	2.0	103	83.4	122			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG

Date Received:

12/23/2008

Work Order Number 0812496

Received by: TLS

TL

Checklist completed by:

[Signature]
Signature

12/23/08
Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes

No

Not Present

Custody seals intact on shipping container/cooler?

Yes

No

Not Present

Not Shipped

Custody seals intact on sample bottles?

Yes

No

N/A

Chain of custody present?

Yes

No

Chain of custody signed when relinquished and received?

Yes

No

Chain of custody agrees with sample labels?

Yes

No

Samples in proper container/bottle?

Yes

No

Sample containers intact?

Yes

No

Sufficient sample volume for indicated test?

Yes

No

All samples received within holding time?

Yes

No

Water - VOA vials have zero headspace?

No VOA vials submitted

Yes

No

Water - Preservation labels on bottle and cap match?

Yes

No

N/A

Water - pH acceptable upon receipt?

Yes

No

N/A

Container/Temp Blank temperature?

1°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____

Date contacted: _____

Person contacted _____

Contacted by: _____

Regarding: _____

Comments: _____

Corrective Action _____