

3R-389

Ground Water Remediation Report

**DATE:
Apr 2008**

BLAGG ENGINEERING, INC.

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

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

3R 389

RECEIVED

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2008 APR 30 PM 3 32

April 25, 2008

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
GCU # 194, Unit D, Sec. 5, T27N, R12W, NMPM
San Juan County, New Mexico**

NMOCD Administrative/Environmental Order #: 3RP-389-0

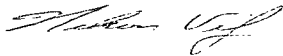
Dear Mr. von Gonten:

BP America Production Company (**BP**) has retained Blagg Engineering, Inc. (**BEI**) to conduct environmental monitoring of groundwater at the GCU # 194.

The last formal correspondence to NMOCD was conducted with a letter dated February 10, 2006. 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 (without lab report)
Ms. Shannon Hoover, Senior Geologist, URS Corp., Austin, Texas

3 R 3B9
COPY

BP AMERICA PRODUCTION CO.

GROUNDWATER REMEDIATION REPORT

**GCU # 194
(D) SECTION 5, T27N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO**

RECEIVED
2008 APR 30 PM 3 32

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

APRIL 2008

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

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

BP AMERICA PRODUCTION COMPANY
GCU # 194 - Dehydrator Pit
NW/4 NW/4, Sec. 5, T27N, R12W

Monitor Well Installation Date: 7/6/06 (MW #4)

Monitor Well Sampling Dates: 8/3/06, 6/25/07, 9/17/07, 11/14/07

Site History:

A site dehydrator pit closure was initiated in April 2002. Potential groundwater impacts were identified within the source area from sampling and testing of the exposed groundwater via excavation. A secondary source area was discovered during installation of a groundwater monitor well (MW #3) in December 2002; and thereafter, sampling and testing verified groundwater impacts. During quarterly sampling in March 2004, free phase product was observed within MW #3 and continues to be present. Documentation of this work and subsequent groundwater monitoring data for the site have previously been submitted for New Mexico Oil Conservation Division (NMOCD) review. Further site delineation and limited excavation of the secondary source area was suggested within the report. The reporting herein is for site monitoring for 2006 and 2007.

Groundwater Investigation and Soil Lithology:

Groundwater monitor well MW #4 was installed in July 2006 to delineate the previously identified secondary source area and to test groundwater quality (Figure 1). The initial boring intended for MW #4 (BH-4), revealed a dark gray to black sand with a strong apparent hydrocarbon odor between 6 ½ to 8 ½ feet below grade. BH-4 was located approximately 60 feet north from monitor well MW #3. BH-4 was grouted and abandoned using ¾ inch bentonite chips. MW #4 was installed 30 feet beyond BH-4 in the down gradient direction where physical characteristics revealed a more apparent non-impacted soil conditions.

Soil lithology at the site consists of primarily sand, non cohesive, firm, and with varying color. Boring logs for BH-4 and MW #4 are included.

Groundwater Monitor Well Sampling Procedures:

Monitor well MW #4 was developed after installation by hand-bailing, using new disposable bailers. Prior to sample collections, MW #4 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 included benzene, toluene, ethylbenzene, and total xylenes (BTEX) by US EPA Method 8021B.

Fluids generated during monitor well development and purging were managed by discarding into the separator tank pit located on the well site. The tank pit contents are then disposed through approved NMOCD operational procedures for removal of produced fluids.

Groundwater Quality & Flow Direction Information:

Since June 2007, monitor well MW #4 has been sampled on a quarterly basis. Fluctuations above and below the New Mexico Water Quality Control Commission (NMWQCC) standards has been recorded. Source area monitor well MW#3 has continued to reveal the presence of free phase product. A historical summary of laboratory analytical BTEX results is included within the table on the following page. Field data sheets, laboratory reports, and laboratory quality assurance/quality control information are also included.

Groundwater elevations have consistently been measured with a gradient towards the north and parallel to the nearby Gallegos Canyon wash (Figure 2 through Figure 4).

Summary and/or Recommendations:

The well site is located in a very remote area of San Juan County. Quarterly monitoring of MW #3 and sampling of MW #4 is currently being conducted. The presence of free phase product within monitor well MW #3 indicates long term monitoring will be necessary if proactive remediation efforts are not undertaken. Shallow groundwater suggests excavation of the secondary source area might be the most practical solution. Alternative technologies such as air sparging may be suitable for remediation of lower dissolved concentrations of BTEX and/or the secondary source area.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

**GCU # 194 - SEPARATOR PIT
UNIT D, SEC. 5, T27N, R12W**

REVISED DATE: November 30, 2007

FILENAME: (194-4Q07.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
23-Dec-02	MW #1	8.04	14.50	-	6,100	7.73	-	ND	ND	ND	ND
23-Dec-02	MW #2	7.84	14.50	-	7,100	7.94	-	6.8	0.5	14	8.0
24-Feb-03		7.72		-	6,900	8.03	-	5.4	ND	9.9	13
29-May-03		7.96			6,100	7.78		5.4	1.0	6.7	11
18-Aug-03		8.58			8,700	7.56		11	ND	17	19
18-Nov-03		8.20			7,900	7.66		2.3	ND	8.4	5.1
22-Mar-04		7.80			6,800	7.59		2.1	ND	5.8	7.6
23-Jun-04		8.43			8,000	7.49		3.5	ND	8.5	5.4
22-Dec-04		7.93			N/A	N/A		ND	ND	1.9	2.7
28-Mar-05		7.67			6,400	7.58		ND	ND	1.5	2.1
23-Dec-02	MW #3	8.69	14.00	-	8,800	7.80	-	180	34	220	2,130
29-May-03		8.81			7,700	7.40		8.6	7.6	8.5	17
18-Aug-03		9.46			9,500	7.25		13	ND	2.1	30
18-Nov-03		8.97			7,900	7.37		1,800	100	1,300	13,000
22-Mar-04							0.01				
23-Jun-04							0.45				
22-Dec-04							0.40				
28-Mar-05							0.01				
27-Jul-06							0.04				
25-Jun-07							0.10				
17-Sep-07							0.01				
14-Nov-07							0.01				
03-Aug-06	MW #4	8.82	17.15		800	7.33		91	ND	130	ND
25-Jun-07		8.60			4,800	7.44		ND	ND	ND	ND
17-Sep-07		8.87			6,500	7.22		ND	ND	ND	ND
14-Nov-07		8.43			7,100	7.57		31	ND	26	ND
NMWQCC GROUNDWATER STANDARDS								10	750	750	620

- NOTES :
- 1) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .
 - 2) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED .
 - 3) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .

BLAGG ENGINEERING, Inc.

P.O. BOX 87

BLOOMFIELD, NM 87413

(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT: **BP AMERICA PRODUCTION COMPANY**
LOCATION NAME: **GCU # 194** UNIT D, SEC. 5, T27N, R12W
CONTRACTOR: **BLAGG ENGINEERING, INC.**
EQUIPMENT USED: **MOBILE DRILL RIG (CME 75)**
BORING LOCATION: **125.5 FEET, S26.5W FROM WELL HEAD.**

BORING #..... **BH - 4**
MW #..... **N/A**
PAGE #..... **4**
DATE STARTED **7/06/06**
DATE FINISHED **7/06/06**
OPERATOR..... **KP**
PREPARED BY **NJV**

DEPTH (FT.) INTERVAL LITHOLOGY INTERVAL MW SCHEMATIC FIELD CLASSIFICATION AND REMARKS

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	FIELD CLASSIFICATION AND REMARKS
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				


GROUND SURFACE

DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 6.5 FT. BELOW GRADE).

SAMPLE BH4 @ 7 FT. - TIME COLLECTED 1253, OVM = **78.4** ppm (collected from auger cuttings).

DARK GRAY TO BLACK SAND, NON COHESIVE, WET, LOOSE TO FIRM, STRONG APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS, (6.5 - 8.5 FT. BELOW GRADE).

DARK GREENISH GRAY SAND, NON COHESIVE, SATURATED, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS, (8.5 - 10.0 FT. BELOW GRADE).

NOTES:  - SAND.

OVM - organic vapor meter or PID (photoionization detector).
ppm - parts per million.

OVM CALIBRATION:
54.5 ppm; RF = 0.52
(RF = response factor).
100 ppm calibration gas
- isobutylene.
Date - 7/06/06.
Time - 0833.

BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199


MW #4

BORE / TEST HOLE REPORT

CLIENT: **BP AMERICA PRODUCTION COMPANY**
LOCATION NAME: **GCU # 194** **UNIT D, SEC. 5, T27N, R12W**
CONTRACTOR: **BLAGG ENGINEERING, INC.**
EQUIPMENT USED: **MOBILE DRILL RIG (CME 75)**
BORING LOCATION: **98 FEET, S33W FROM WELL HEAD.**

BORING #..... **BH - 5**
MW #..... **4**
PAGE #..... **5**
DATE STARTED **7/06/06**
DATE FINISHED **7/06/06**
OPERATOR..... **KP**
PREPARED BY **NJV**

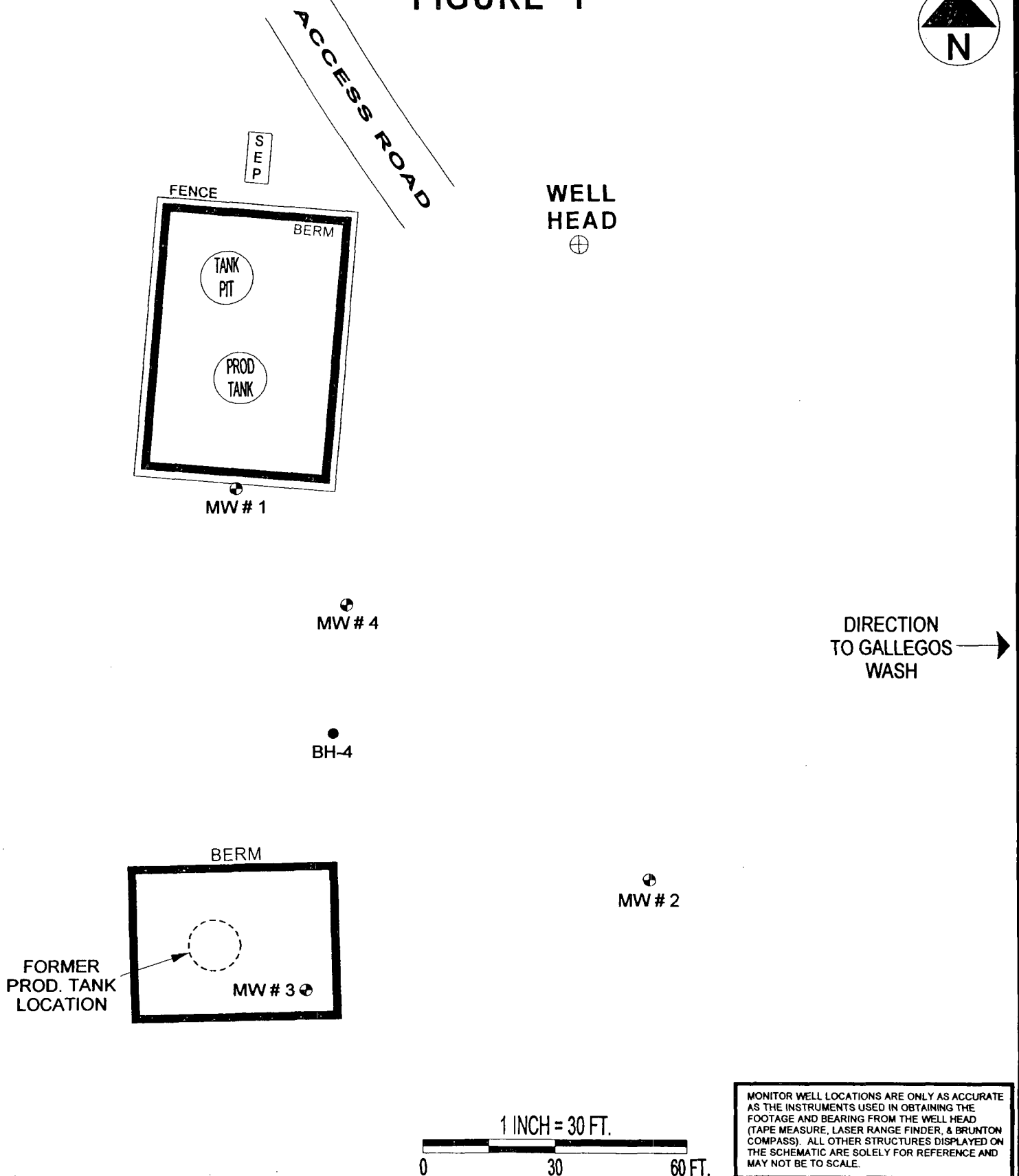
DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	FIELD CLASSIFICATION AND REMARKS
				GROUND SURFACE
				TOP OF CASING APROX. 2.60 FT. ABOVE GRADE.
1				
2				
3				
4				DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 10.0 FT. BELOW GRADE).
5			TOS 4.55 ft	
6				DEPTH TO WATER APPROX. 6.22 FT. BELOW GRADE, MEASURED 8/03/06.
7				
8				
9				
10				
11				
12				OLIVE GRAY SAND & GRAVEL, NON COHESIVE, SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS, (10.0 - 15.0 FT. BELOW GRADE).
13				
14				
15			TD 14.55 ft	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

NOTES:  - SAND.

TOS - Top of screen of monitor well.
TD - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.60 ft. above grade to 4.55 ft. below grade, 0.010 slotted screen between 4.55 to 14.55 feet below grade, sand packed annular to 3 ft. below grade, bentonite chips from 0 to 3 ft. below grade. Cemented well protector around above grade casing and secured with padlock.

FIGURE 1



BP AMERICA PRODUCTION COMPANY

GCU # 194

NW/4 NW/4 SEC 5, T27N, R12W, 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 INSTALLATION

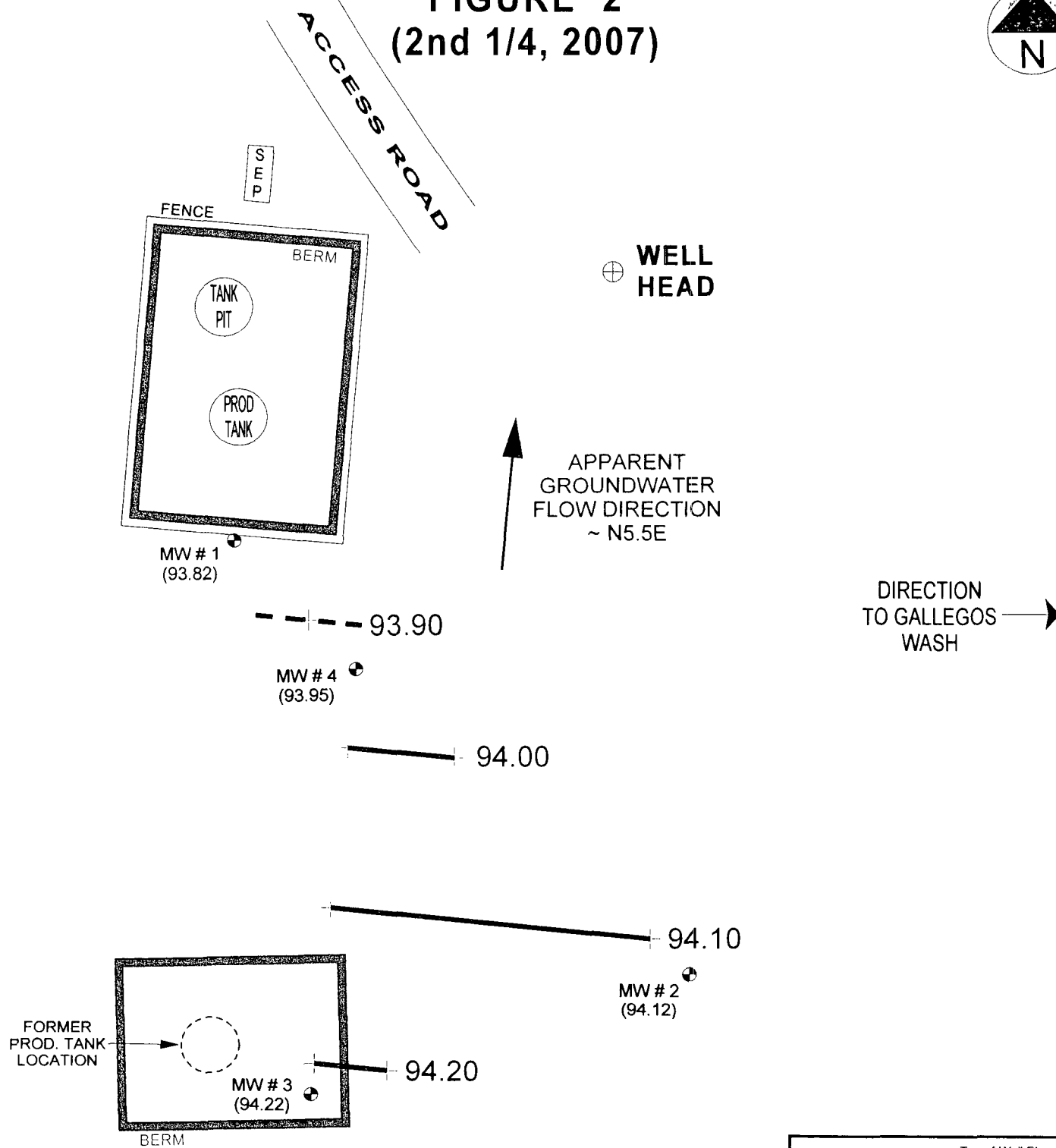
DRAWN BY: NJV

FILENAME: 07-06-06-SM2.SKF

**SITE
MAP**

07/06

FIGURE 2
(2nd 1/4, 2007)



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.

1 INCH = 30 FT.

0 30 60 FT.

Top of Well Elevation	
MW #1	(102.35)
MW #2	(102.47)
MW #3	(103.43)
MW #4	(102.55)
MW #1 (93.82)	Groundwater Elevation as of 06/25/07.

BP AMERICA PRODUCTION COMPANY
GCU # 194

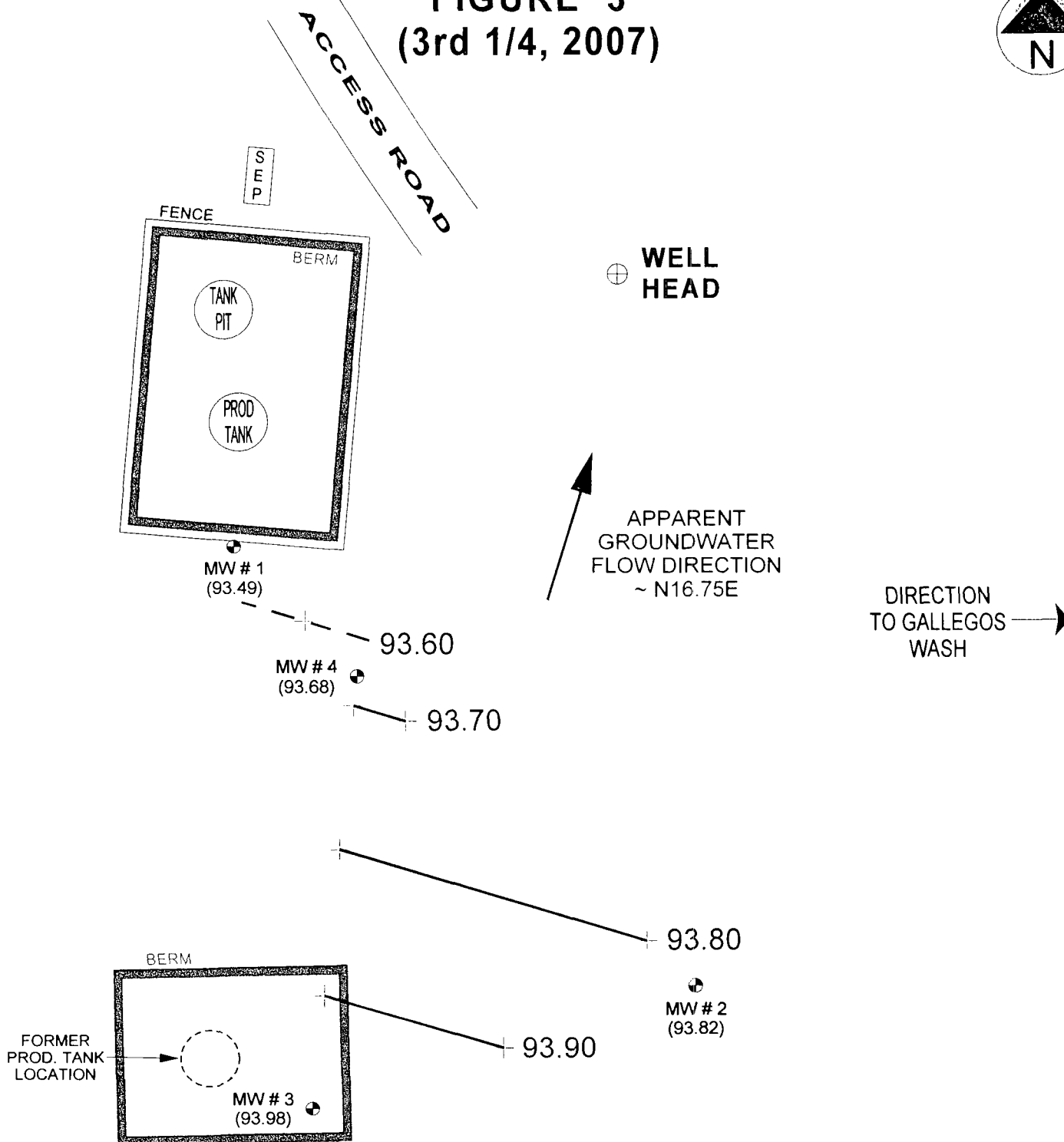
NW/4 NW/4 SEC. 5, T27N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 06-25-07-GW.SKF
REVISED: 06-25-07 NJV

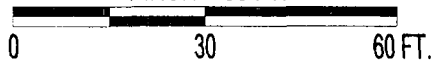
**GROUNDWATER
CONTOUR
MAP
06/07**

FIGURE 3
(3rd 1/4, 2007)



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.

1 INCH = 30 FT.



Top of Well Elevation	
MW #1	(102.35)
MW #2	(102.47)
MW #3	(103.43)
MW #4	(102.55)
MW #1 (93.49)	Groundwater Elevation as of 09/17/07.

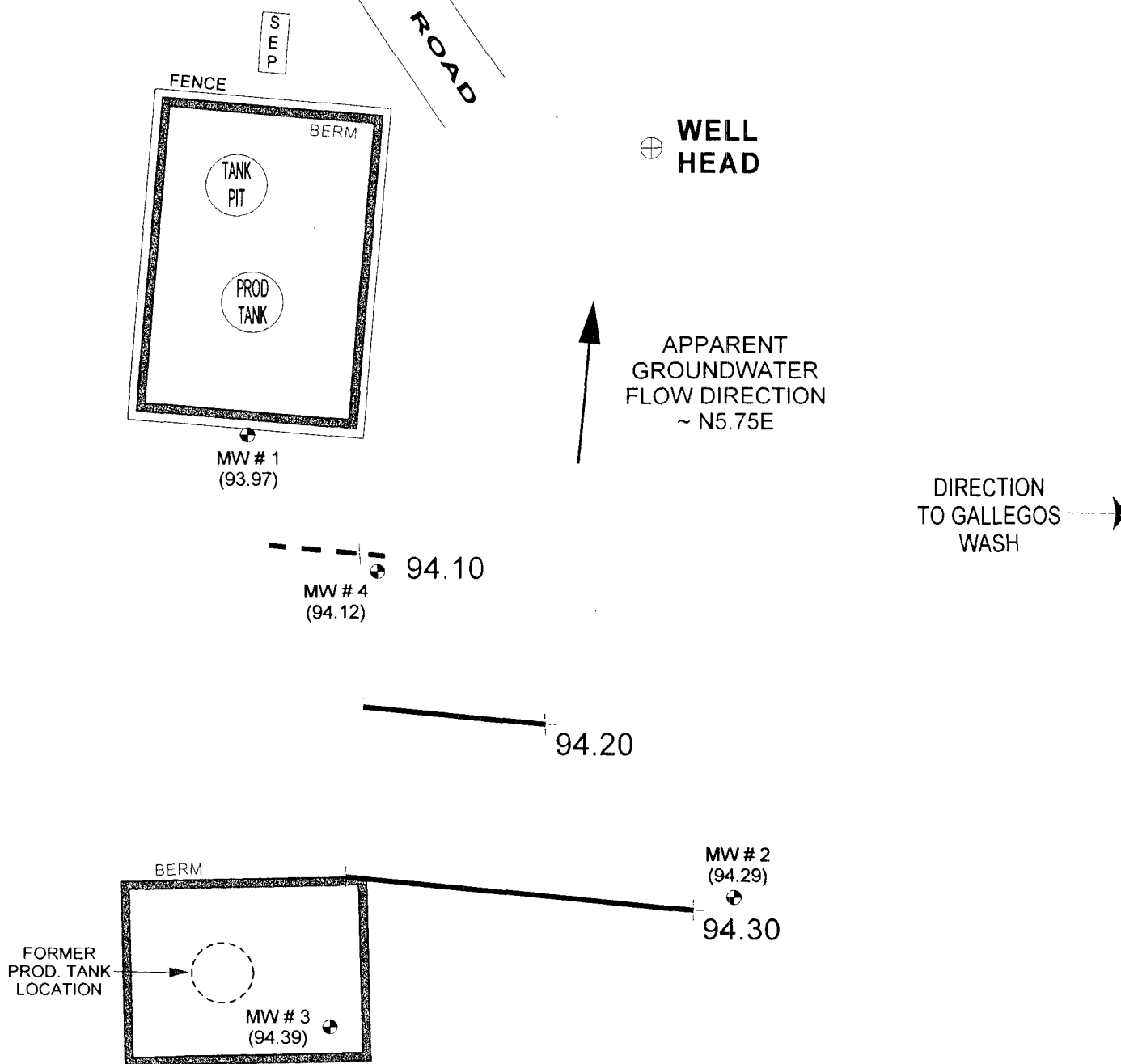
BP AMERICA PRODUCTION COMPANY
GCU # 194
NW/4 NW/4 SEC. 5, T27N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 09-17-07-GW.SKF
REVISED: 09-17-07 NJV

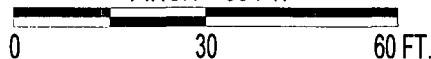
GROUNDWATER
CONTOUR
MAP
09/07

FIGURE 4
(4th 1/4, 2007)



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.

1 INCH = 30 FT.



Top of Well Elevation	
MW #1	(102.35)
MW #2	(102.47)
MW #3	(103.43)
MW #4	(102.55)
Groundwater Elevation as of 11/14/07.	
MW #1 (91.12)	

BP AMERICA PRODUCTION COMPANY
GCU # 194

NW/4 NW/4 SEC. 5, T27N, R12W, 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

DRAWN BY: NJV

FILENAME: 11-14-07-GW.SKF

REVISED: 11-14-07 NJV

**GROUNDWATER
CONTOUR
MAP
11/07**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GCU # 194 - SEPARATOR PIT

LABORATORY (S) USED : HALL ENVIRONMENTAL

UNIT D, SEC. 5, T27N, R12W

Date : August 3, 2006

SAMPLER : N J V

Filename : 08-03-06.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	102.35		-	14.50	-	-	-	-	-
MW - 2	102.47		-	14.50	-	-	-	-	-
MW - 3	103.43			14.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =				PRODUCT THICKNESS (FT.) =					
MW - 4	102.55	93.73	8.82	17.15	0810	7.33	800	21.6	4.00

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
08/06/06	0755

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 . Collected sample from MW # 4 for BTEX analysis only .

Top of casing MW # 1 ~ 2.40 ft. , MW # 2 ~ 2.55 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.60 ft. above grade

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Aug-06

CLIENT: Blagg Engineering
Lab Order: 0608081
Project: GCU #194
Lab ID: 0608081-01

Client Sample ID: MW#4
Collection Date: 8/3/2006 8:10:00 AM
Date Received: 8/4/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	91	1.0		µg/L	1	8/7/2006 1:50:28 PM
Toluene	ND	1.0		µg/L	1	8/7/2006 1:50:28 PM
Ethylbenzene	130	5.0		µg/L	5	8/7/2006 9:51:37 PM
Xylenes, Total	ND	3.0		µg/L	1	8/7/2006 1:50:28 PM
Surr: 4-Bromofluorobenzene	104	72.2-125		%REC	1	8/7/2006 1:50:28 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

HALL ENVIRONMENTAL
 ANALYSIS LABORATORY
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD

Client: BLAGG ENR. / BP AMERICA

Address: P.O. BOX 87
BED. NM 87413

Phone #: 632-1199

Fax #:

Other: QA/QC Package: Std ☐ Level 4 ☐

Project Name: GCN #194

Project #: 907

Project Manager: NV

Sampler: NV

Sample Temperature: 46

Number/Volume: 2-40ml

Sample I.D. No.: MW #4

Matrix: WATER

Date: 8/3/06 0810

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Relinquished By: (Signature) [Signature]
 Date: 8/4/06 1100

Relinquished By: (Signature) [Signature]
 Date:

Relinquished By: (Signature) [Signature]
 Date:

Relinquished By: (Signature) [Signature]
 Date:

ANALYSIS REQUEST

TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
EDC (Method 8021)	
8310 (PNA or PAH)	
RCRA 8 Metals	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles or Headspace (Y or N)	

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #194

Work Order: 0608081

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML RB

MBLK

Batch ID: R20190 Analysis Date: 8/7/2006 8:55:16 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	3.0

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R20190 Analysis Date: 8/7/2006 5:21:30 PM

Benzene	22.37	µg/L	1.0	112	85	115
Toluene	22.31	µg/L	1.0	112	85	118
Ethylbenzene	22.12	µg/L	1.0	111	85	116
Xylenes, Total	45.47	µg/L	3.0	112	85	119

Sample ID: 100NG BTEX LCSD

LCSD

Batch ID: R20190 Analysis Date: 8/7/2006 5:51:39 PM

Benzene	22.11	µg/L	1.0	111	85	115	1.17	27
Toluene	21.63	µg/L	1.0	108	85	118	3.09	19
Ethylbenzene	21.93	µg/L	1.0	110	85	116	0.863	10
Xylenes, Total	45.31	µg/L	3.0	111	85	119	0.361	13

Qualifiers:

E	Value above quantitation range	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 and Time Received:

8/7/2006

Work Order Number 0608081

Received by GLS

Checklist completed by [Signature]
Signature

8-7-06
Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

4°

4° C ± 2 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

GCU # 194 - SEPARATOR PIT
UNIT D, SEC. 5, T27N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 25, 2007

SAMPLER : N J V

Filename : 06-25-07.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.)
1	102.35	93.82	8.53	14.50	-	-	-	-	-
2	102.47	94.12	8.35	14.50	-	-	-	-	-
3	103.43	94.22 *	9.22	15.00	-	-	-	-	1.50
DEPTH TO PRODUCT (FT.) =			9.18	PRODUCT THICKNESS (FT.) =				0.10	
4	102.55	93.95	8.60	17.15	0600	7.44	4,800	13.1	4.25

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
06/25/07	0550

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 "

* INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .

Excellent recovery in MW # 4 . Murky brown in appearance . Collected sample from MW # 4 for BTEX analysis only . Purged MW # 3 to total depth , then terminated . Very black in appearance with strong physical hydrocarbon presence .

Top of casing MW # 1 ~ 2.40 ft. , MW # 2 ~ 2.55 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.60 ft. above grade

Hall Environmental Analysis Laboratory, Inc.

Date: 02-Jul-07

CLIENT: Blagg Engineering

Client Sample ID: MW #4

Lab Order: 0706381

Collection Date: 6/25/2007 6:00:00 AM

Project: GCU #194

Date Received: 6/26/2007

Lab ID: 0706381-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	7/1/2007 9:27:16 AM
Toluene	ND	1.0		µg/L	1	7/1/2007 9:27:16 AM
Ethylbenzene	ND	1.0		µg/L	1	7/1/2007 9:27:16 AM
Xylenes, Total	ND	2.0		µg/L	1	7/1/2007 9:27:16 AM
Surr: 4-Bromofluorobenzene	78.7	70.2-105		%REC	1	7/1/2007 9:27:16 AM

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

CHAIN-OF-CUSTODY RECORD

Client: BLAGG ENGR/BP AMERICA

Address: P.O. BOX 87

BFTO, NM 87413

Phone # 915 632-1199

Fax #:

QA/QC Package:

Std ☐ Level 4 ☐

Other:

Project Name:

GCN # 194

Project #:

25

Project Manager:

NV

Sampler:

NV

Sample Temperature:

8

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂ HNO₃

HEAL No.

6/25/07

0600

WATER

MW # 4

2-40m

✓

0706381

-1

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)

(BTEX + MTBE + TMBs (80218))

✓

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles or Headspace (Y or N)

Remarks:

Received By: (Signature)

Relinquished By: (Signature)

Date: 6/25/07 Time: 1515

Received By: (Signature)

Relinquished By: (Signature)

Date: 6/25/07 Time: 1515

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #194

Work Order: 0706381

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R24198 Analysis Date: 6/30/2007 6:59:05 PM

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: R24198 Analysis Date: 6/30/2007 11:44:25 PM

Benzene	19.42	µg/L	1.0	97.1	85.9	113
Toluene	19.80	µg/L	1.0	99.0	86.4	113
Ethylbenzene	20.03	µg/L	1.0	100	83.5	118
Xylenes, Total	59.67	µg/L	2.0	99.4	83.4	122

Qualifiers:

E	Value above quantitation range	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	Spiked recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG

Date and Time Received:

6/26/2007

Work Order Number 0706381

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

8°

4° C ± 2 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

GCU # 194 - SEPARATOR PIT
UNIT D, SEC. 5, T27N, R12W

LABORATORY (S) USED: HALL ENVIRONMENTAL

Date: September 17, 2007

SAMPLER: NJV

Filename: 09-17-07.WK4

PROJECT MANAGER: NJV

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.35	93.49	8.86	14.50	-	-	-	-	-
2	102.47	93.82	8.65	14.50	-	-	-	-	-
3	103.43	93.98 *	9.45	15.00	-	-	-	-	1.25
DEPTH TO PRODUCT (FT.) =			9.45	PRODUCT THICKNESS (FT.) =			0.01		
4	102.55	93.68	8.87	17.15	0950	7.22	6,500	21.7	4.00
INSTRUMENT CALIBRATIONS =						7.00	2,800		
DATE & TIME =						09/17/07	0945		

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 "

* INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .

Excellent recovery in MW # 4 . Murky brown in appearance . Collected sample from MW # 4 for BTEX analysis only . Purged MW # 3 to total depth , then terminated . Very black in appearance with strong physical hydrocarbon presence .

Top of casing MW # 1 ~ 2.40 ft. , MW # 2 ~ 2.55 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.60 ft. above grade

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Sep-07

CLIENT: Blagg Engineering
Lab Order: 0709207
Project: GCU #194
Lab ID: 0709207-01

Client Sample ID: MW#4
Collection Date: 9/17/2007 9:50:00 AM
Date Received: 9/18/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	9/26/2007 9:45:26 PM
Toluene	ND	1.0		µg/L	1	9/26/2007 9:45:26 PM
Ethylbenzene	ND	1.0		µg/L	1	9/26/2007 9:45:26 PM
Xylenes, Total	ND	2.0		µg/L	1	9/26/2007 9:45:26 PM
Surr: 4-Bromofluorobenzene	80.8	70.2-105		%REC	1	9/26/2007 9:45:26 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

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

NO₂ / PCB

NO

BTEX + M
BTEX + M
BTEX + MTX
TPH Metho
TPH (Meth)
EDB (Meth)
EDC (Meth)
8310 (PNA)
HCPA 8 Me
Anions (F, C
8081 Pesti
8260B VOC
8270 (Sem
Air Bubbles

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #194

Work Order: 0709207

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML RB

MBLK

Batch ID: R25334 Analysis Date: 9/26/2007 10:12:19 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: R25334 Analysis Date: 9/26/2007 9:15:28 PM

Benzene 20.66 µg/L 1.0 103 85.9 113

Toluene 20.61 µg/L 1.0 103 86.4 113

Ethylbenzene 20.22 µg/L 1.0 101 83.5 118

Xylenes, Total 60.06 µg/L 2.0 100 83.4 122

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 and Time Received:

9/18/2007

Work Order Number **0709207**

Received by **ARS**

Checklist completed by

Signature

[Signature]

9/18/07

Date

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?

3°

4° C ± 2 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

GCU # 194 - SEPARATOR PIT

LABORATORY (S) USED: HALL ENVIRONMENTAL

UNIT D, SEC. 5, T27N, R12W

Date: November 14, 2007

SAMPLER: N J V

Filename: 11-14-07.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.)
1	102.35	93.97	8.38	14.50	-	-	-	-	-
2	102.47	94.29	8.18	14.50	-	-	-	-	-
3	103.43	94.39 *	9.04	15.00	-	-	-	-	2.00
DEPTH TO PRODUCT (FT.) =			9.04	DEPTH TO WATER (FT.) =		9.05	PRODUCT THICKNESS (FT.) =		0.01
4	102.55	94.12	8.43	17.15	1010	7.57	7,100	14.5	4.25

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	11/14/07	1000

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 "

* INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .

Excellent recovery in MW #4 . Murky brown in appearance . Collected sample from MW #4 for BTEX analysis only . Purged MW #3 to total depth . Very black in appearance with strong physical hydrocarbon presence .

Top of casing MW #1 ~ 2.40 ft. , MW #2 ~ 2.55 ft. , MW #3 ~ 2.40 ft. , MW #4 ~ 2.60 ft. above grade

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-07

CLIENT: Blagg Engineering
Lab Order: 0711290
Project: GCU #194
Lab ID: 0711290-01

Client Sample ID: MW #4
Collection Date: 11/14/2007 10:10:00 AM
Date Received: 11/19/2007
Matrix: AQUEOUS

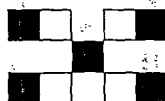
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	31	1.0		µg/L	1	11/21/2007 11:30:36 PM
Toluene	ND	1.0		µg/L	1	11/21/2007 11:30:36 PM
Ethylbenzene	26	1.0		µg/L	1	11/21/2007 11:30:36 PM
Xylenes, Total	ND	2.0		µg/L	1	11/21/2007 11:30:36 PM
Surr: 4-Bromofluorobenzene	89.9	70.2-105		%REC	1	11/21/2007 11:30:36 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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenviromental.com



ANALYSIS REQUEST

Air Bubbles or Headspace (Y or N)

[illegible]

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #194

Work Order: 0711290

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

MBLK

Batch ID: R26192 Analysis Date: 11/21/2007 9:29:58 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: R26192 Analysis Date: 11/21/2007 5:22:13 PM

Benzene	20.11	µg/L	1.0	101	85.9	113
Toluene	20.53	µg/L	1.0	103	86.4	113
Ethylbenzene	20.99	µg/L	1.0	105	83.5	118
Xylenes, Total	67.69	µg/L	2.0	113	83.4	122

Sample ID: 100NG BTEX LCSD

LCSD

Batch ID: R26192 Analysis Date: 11/21/2007 5:52:17 PM

Benzene	20.18	µg/L	1.0	101	85.9	113	0.387	27
Toluene	20.09	µg/L	1.0	100	86.4	113	2.21	19
Ethylbenzene	20.67	µg/L	1.0	103	83.5	118	1.55	10
Xylenes, Total	64.06	µg/L	2.0	107	83.4	122	5.52	13

Qualifiers:

E	Value above quantitation range	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:

11/19/2007

Work Order Number 0711290

Received by: ARS

Checklist completed by:

Signature

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