3R-396

Ground Water Report

DATE:
April 2008

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413

3R396

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 # 188, Unit J, Sec. 30, T29N, R12W, NMPM
San Juan County, New Mexico

NMOCD Administrative/Environmental Order #: 3RP-396-0

Dear Mr. von Gonten:

BP America Production Company (**BP**) has retained Blagg Engineering, Inc. (**BEI**) to conduct environmental monitoring of groundwater at the GCU # 188.

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

NJV/njv

GCU 188 04-25-08 CVL.DOC

BP AMERICA PRODUCTION CO.

GROUNDWATER REMEDIATION REPORT

GCU #188
(J) SECTION 30, T29N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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 # 188 - Production Tank Pit
NW/4 SE/4, Sec. 30, T29N, R12W

Pit Closure Date: 6/26/02

Monitor Well Installation Date: 3/11/03 (MW #2), 7/13/06 (MW #1 & #3), 5/23/07 (MW #4), 5/24/07 (MW #5 & #6)

Monitor Well Sampling Dates: 8/03/06, 10/30/06, 2/22/07, 5/08/07, 5/31/07, 6/25/07, 8/15/07, 11/15/07

Pit Closure & Background:

Initial groundwater impacts at this site were discovered in May 2003 following work on an earthen production tank pit. Impacted soils were removed from the site and a single groundwater monitoring well (MW #2) was placed in the source area to test water depth and quality. Initial water test results indicated impacts were present, but at levels near or below New Mexico Water Quality Control Commission (**NMWQCC**) standards. Quarterly monitoring was maintained and in August 2006, MW #2 had achieved four (4) consecutive sampling events below NMWQCC standards. The groundwater report submitted in 2006 recommended further delineation to quantify gradient and impact extent with a minimum of two (2) additional monitoring wells. The recommendation was achieved in 2006 with the installation of MW #1 (up gradient/background) and MW #3 (presumed down gradient direction). Upon review of the benzene, toluene, ethylbenzene, and total xylenes (**BTEX**) levels in MW #3, BP added three (3) additional monitor wells in 2007 in order to determine the lateral areal extent of the groundwater impacts (MW #4, MW #5, and MW #6).

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 included BTEX by US EPA Method 8021B and general water chemistry.

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:

Sampling of the groundwater monitor wells has been ongoing since March 2003. A summary of laboratory analytical results is included within the tables on the following pages and field/laboratory reports are included. General water quality sampling in May 2007 indicated chloride levels in MW #4 and MW #5 exceeded NMWQCC groundwater standards. These levels were not consistent with reported values seen within the other site monitor wells previously analyzed. Verification of the chloride levels was suggested by field screening and split sampling. BP agreed, and the sampling event in June 2007 revealed more consistency in the chloride levels previous observed (see last attached summary).

Groundwater elevations have consistently been measured with a gradient towards the north-northeast or north-northwest direction (Figure 2 through Figure 9).

Summary and/or Recommendations:

Hydrocarbon impact from the apparent source area (production tank pit) appears to have been remediated via excavation with natural attenuation and is presently meeting closure according to BP's NMOCD approved groundwater management plan. On-site monitor wells MW #3, MW #4, and MW #5 are currently being monitored on a quarterly basis and appear to be following the same decreasing trend in BTEX as previously recorded from MW #2. Total xylenes is the only analyte with concentrations above the NMWQCC groundwater standards in the most recent sampling event in November 2007 (MW #3 & MW #5 only). It is recommended to continue quarterly sampling until all three (3) monitor wells have achieved four (4) consecutive sampling events below NMWQCC standards.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

GCU # 188 - SEPARATOR PIT
UNIT J, SEC. 30, T29N, R12W

REVISED DATE: November 30, 2007

FILENAME: (188-4Q07.WK4) NJV

								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)	Benzene	Toluene	Ethyl Benzene	Total Xylene
03-Aug-06	MW #1	18.02	22.05	2,910	2,700	6.77		ND	ND	ND	ND
14-Mar-03	MW #2	13.93	17.50	2,310	2,300	7.47		**23**	8.0	220	**830**
29-May-03		13.78			2,300	6.93		**10**	18	23	**180**
18-Aug-03		13.88			3,000	6.86		**15**	ND	37	**220**
18-Nov-03		13.45			2,700	6.86		**31**	ND	74	**470**
29-Mar-04		13.59			2,600	6.86		**11**	ND	24	**180**
23-Jun-04		13.68			2,800	6.78		**12**	ND	27	**170**
22-Dec-04		12.87			N/A	N/A		**18**	ND	71	**520**
28-Mar-05		12.86			2,300	6.79		**9.3**	15	42	**220**
23-Jun-05		12.60			2,300	6.72		**6.3**	12	29	**120**
21-Sep-05		13.31			2,300	6.65		**9.0**	7.7	18	**190**
03-Aug-06		13.45			2,300	6.68		**2.4**	2.9	3.6	**72**
03-Aug-06	MW #3	15.81	21.90	2,300	2,400	6.84		**16**	22	220	**1,400**
30-Oct-06		15.60			2,500	6.87		**13**	ND	190	**1,000**
22-Feb-07		15.12			2,400	7.01		**13**	12	250	**1,300**
08-May-07		15.23			2,400	6.83		**8.1**	6.6	190	**860**
15-Aug-07		15.45			2,700	6.77		**9.9**	7.1	110	**460**
15-Nov-07		15.14			2,500	6.91		**8.0**	7.0	95	**700**
31-May-07	MW #4	13.65	21.85	2,230	2,200	6.91		ND	27	ND	**1,300**
15-Aug-07		14.08			2,200	6.78		ND	ND	260	**1,100**
15-Nov-07		13.82			2,500	6.80		ND	ND	30	**160**
31-May-07	MW #5	14.25	21.28	2,260	2,200	7.00		**11**	32	**790**	**4,400**
15-Aug-07		14.70			2,400	6.84		**11**	ND	**510**	**930**
15-Nov-07		14.43			2,300	7.20		**5.7**	ND	**510**	**680**
31-May-07	MW #6	14.37	21.90	1,930	1,400	6.93		ND	ND	ND	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 PROCEEDING RESULTS EXCEEDED .

3) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .

GENERAL WATER QUALITY

BP AMERICA PRODUCTION COMPANY

GCU # 188

Sample Dates : 8 / 3 / 06 (#1 , # 2 , # 3) & 5 / 31 / 07 (# 4 , # 5 , # 6)

PARAMETERS	MW # 1	MW # 2	MW # 3	MW # 4	MW # 5	MW # 6	Units
LAB pH	6.86	6.75	7.08	7.27	7.39	7.31	s. u.
LAB CONDUCTIVITY @ 25 C	3,360	2,710	2,850	2,910	2,820	2,580	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	2,910	2,310	2,300	2,230	2,260	1,930	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	2,870	2,320	2,310	2,030	2,120	1,920	mg / L
SODIUM ABSORPTION RATIO	4.5	2.8	3.9	32.6	25.1	19.2	ratio
TOTAL ALKALINITY AS CaCO3	440	720	550	432	271	381	mg / L
TOTAL HARDNESS AS CaCO3	1,400	1,300	1,180	80.2	138	170.0	mg / L
BICARBONATE as HCO3	440	720	550	432	271	381	mg / L
CARBONATE AS CO3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
HYDROXIDE AS OH	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
NITRATE NITROGEN	0.04	0.06	0.07	0.29	0.47	0.34	mg / L
NITRITE NITROGEN	< 0.01	< 0.01	< 0.01	0.03	0.03	0.03	mg / L
CHLORIDE	30.8	10.4	29.1	368	409	217	mg / L
FLUORIDE	0.56	0.76	0.40	1.44	1.08	0.92	mg / L
PHOSPHATE	< 0.01	< 0.01	< 0.01	1.29	5.20	4.76	mg / L
SULFATE	1,760	1,150	1,290	667	795	805	mg / L
IRON	< 0.001	< 0.001	0.223	0.003	0.037	0.005	mg / L
CALCIUM	219	431	160	22.9	39.4	30.5	mg / L
MAGNESIUM	206	52.4	187.0	5.60	9.60	23.0	mg / L
POTASSIUM	3.76	1.84	1.20	26.0	22.6	30.9	mg / L
SODIUM	386.0	234	305	671	676	578	mg / L
CATION / ANION DIFFERENCE	0.03	0.09	0.12	0.04	0.06	0.06	%

NOTES : 1) s. u. INDICATES STANDARD UNIT .
2) umhos / cm INDICATES MICRO OHMS PER CENTIMETER.
3) mg / L INDICATES MILLIGRAMS PER LITER.

WATER CHLORIDE TESTING ANALYSIS

BP AMERICA PRODUCTION COMPANY

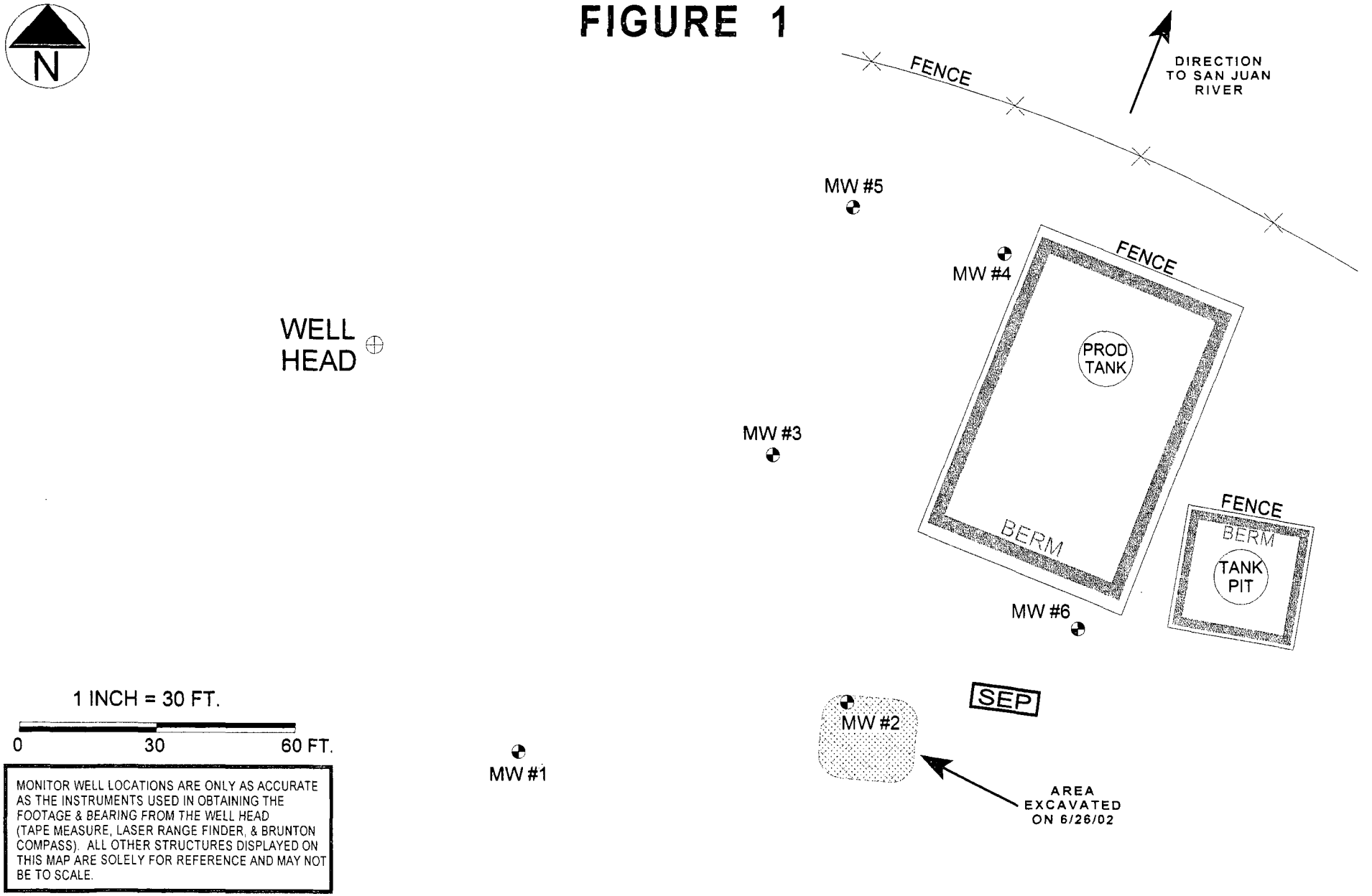
GCU #188

Sample Date : 6 / 25 / 07

PARAMETER	MW # 4	MW # 5	MW # 6	Units
CHLORIDE				
ENVIROTECH LAB	57.0	58.0	50.0	mg / L
HALL ENVIRONMENTAL LAB	17	17	13	mg / L
FIELD SCREENING	< 31	< 31	< 31	mg / L

NOTE : 1) mg / L INDICATES MILLIGRAMS PER LITER.

FIGURE 1



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

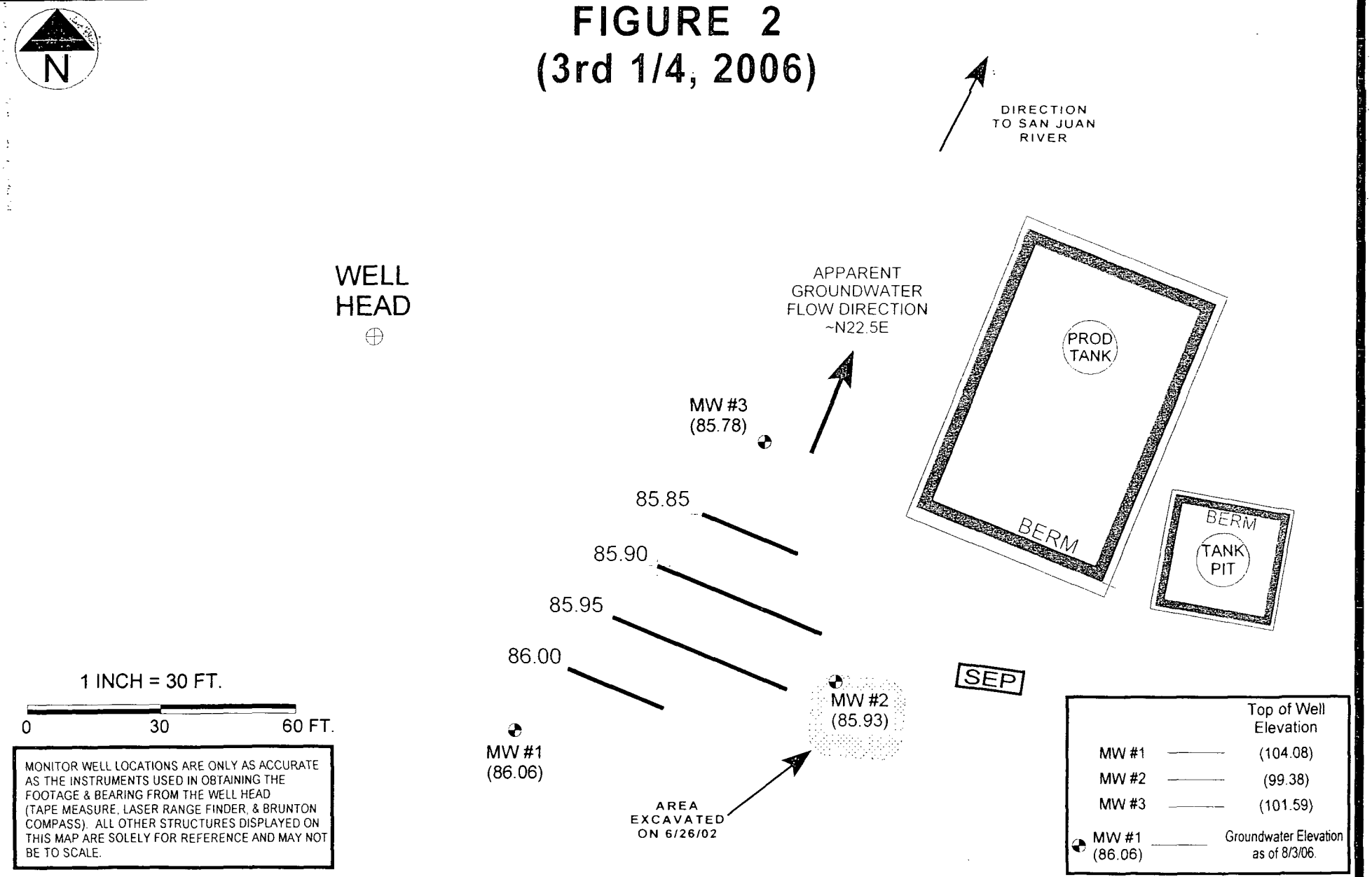
BP AMERICA PRODUCTION CO.
GCU #188
NW/4 SE/4 SEC. 30, T29N, R12W
SAN JUAN COUNTY, NEW MEXICO

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: GCU188-SM3.SKF
REVISED: 05-24-07 NJV

SITE MAP
05/07

FIGURE 2
(3rd 1/4, 2006)



BP AMERICA PRODUCTION CO

GCU #188

NW/4 SE/4 SEC. 30, T29N, R12W

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P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: MW SAMPLING

DRAWN BY: NJV

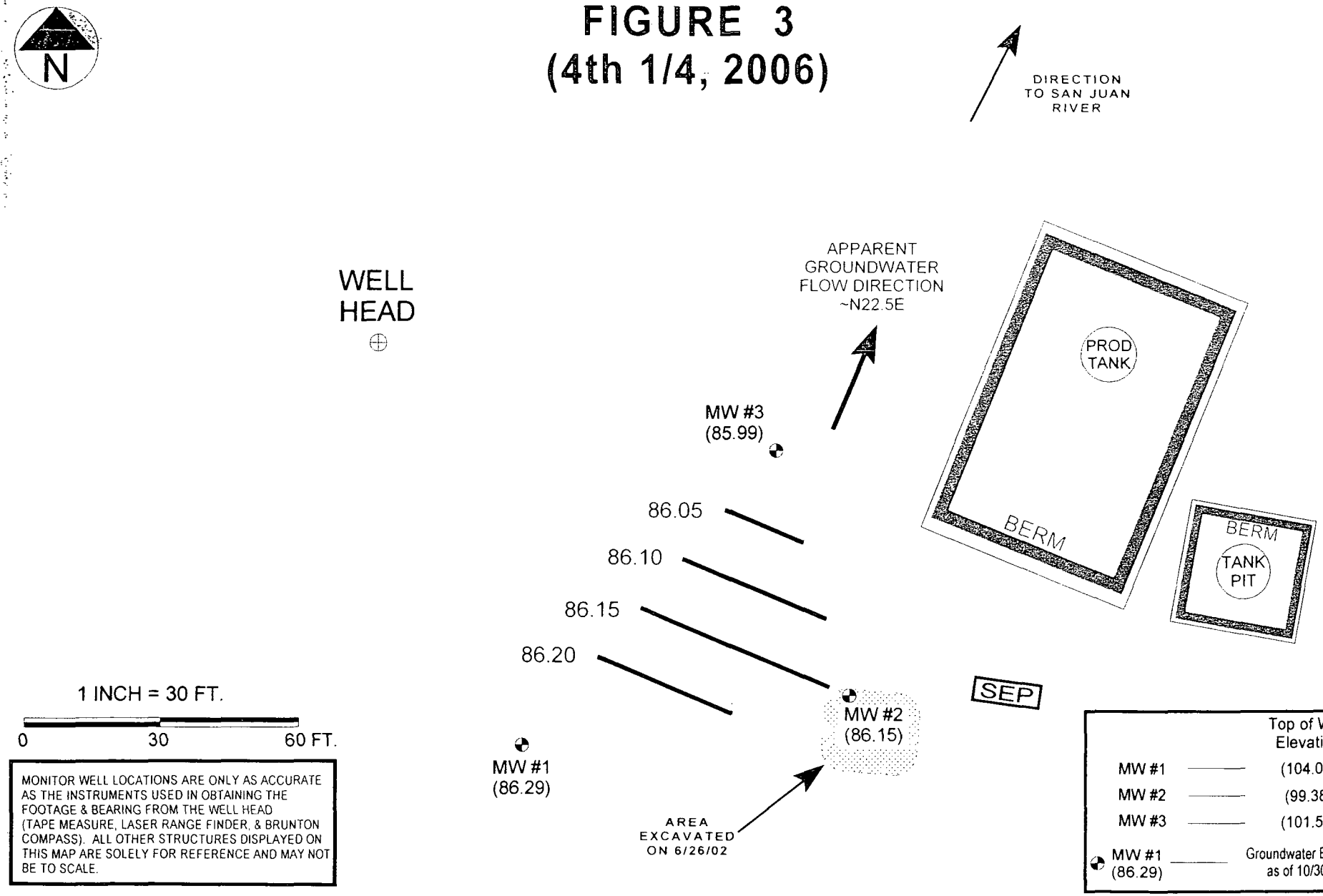
FILENAME: 08-03-06-GW.SKF

REVISED: 08-04-06 NJV

GROUNDWATER CONTOUR MAP

08/06

FIGURE 3
(4th 1/4, 2006)



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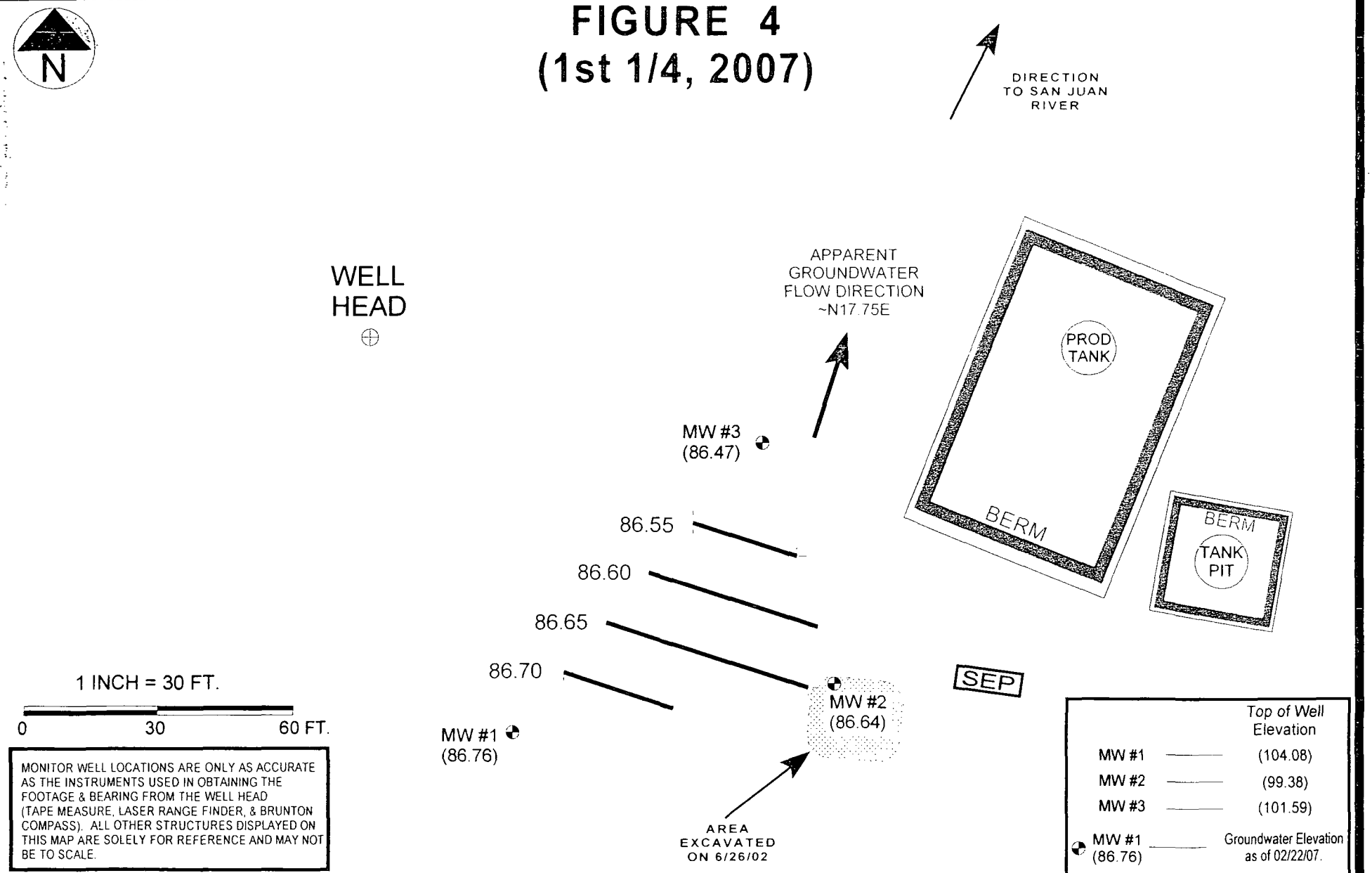
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 10-30-06-GW.SKF
REVISED: 10-30-06 NJV

GROUNDWATER CONTOUR MAP
10/06

FIGURE 4
(1st 1/4, 2007)



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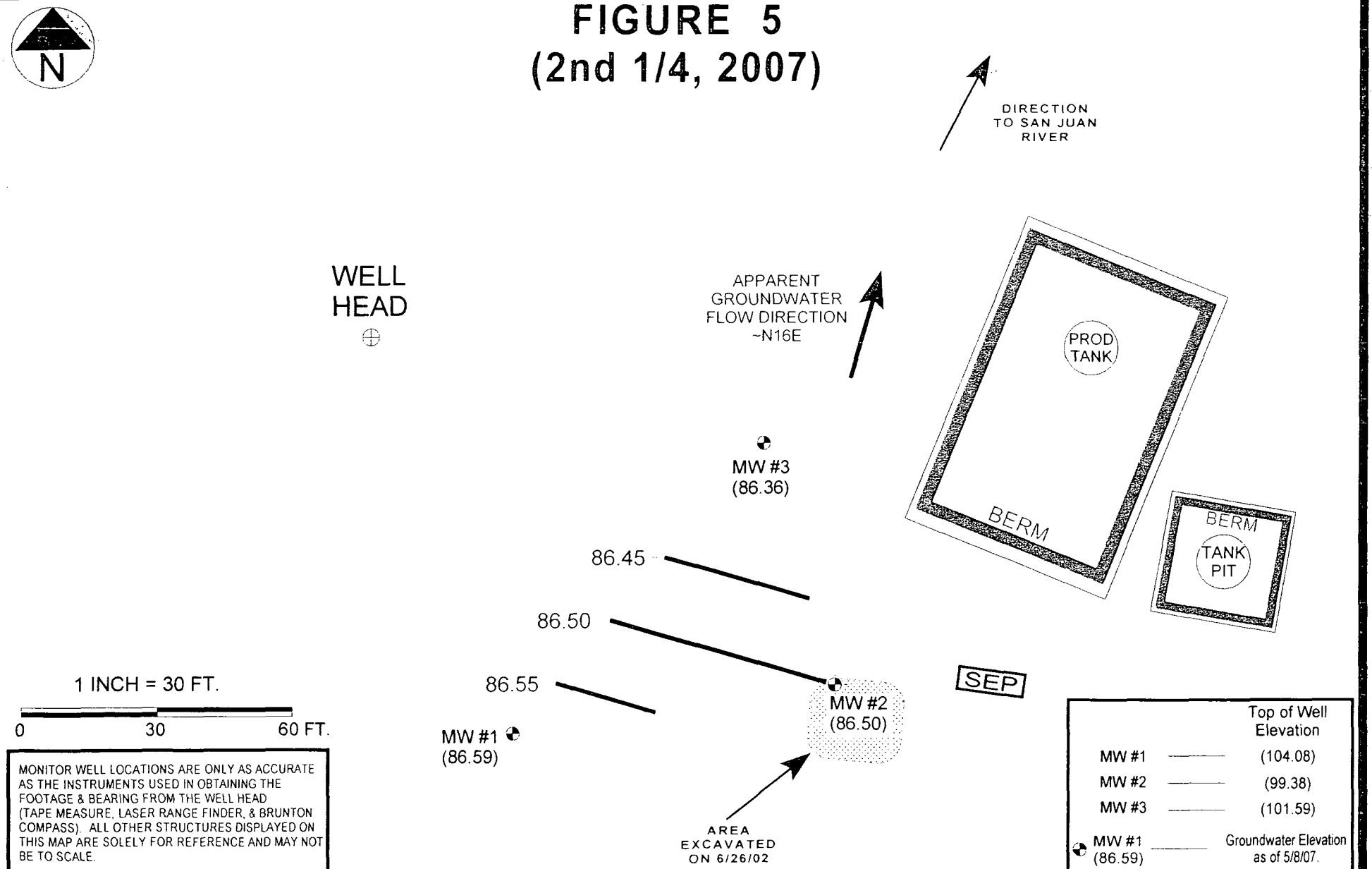
BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 02-22-07-GW.SKF
REVISED: 02-22-07 NJV

GROUNDWATER CONTOUR MAP
02/07

FIGURE 5
(2nd 1/4, 2007)



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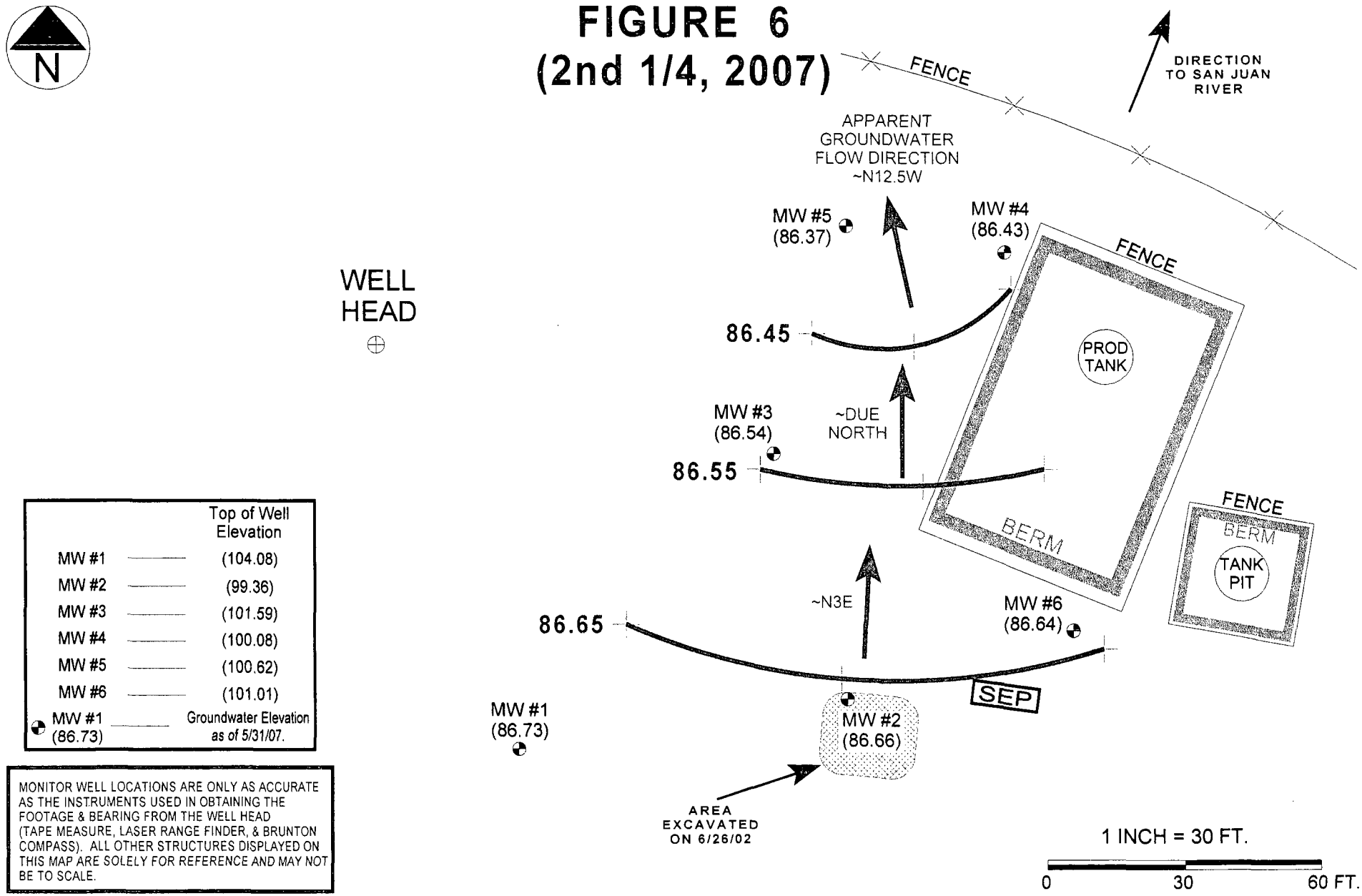
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 05-08-07-GW.SKF
REVISED: 05-08-07 NJV

GROUNDWATER CONTOUR MAP
05/07

FIGURE 6
(2nd 1/4, 2007)



	Top of Well Elevation
MW #1	(104.08)
MW #2	(99.36)
MW #3	(101.59)
MW #4	(100.08)
MW #5	(100.62)
MW #6	(101.01)
MW #1 (86.73)	Groundwater Elevation as of 5/31/07.

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

BP AMERICA PRODUCTION CO.
GCU #188
NW/4 SE/4 SEC. 30, T29N, R12W
SAN JUAN COUNTY, NEW MEXICO

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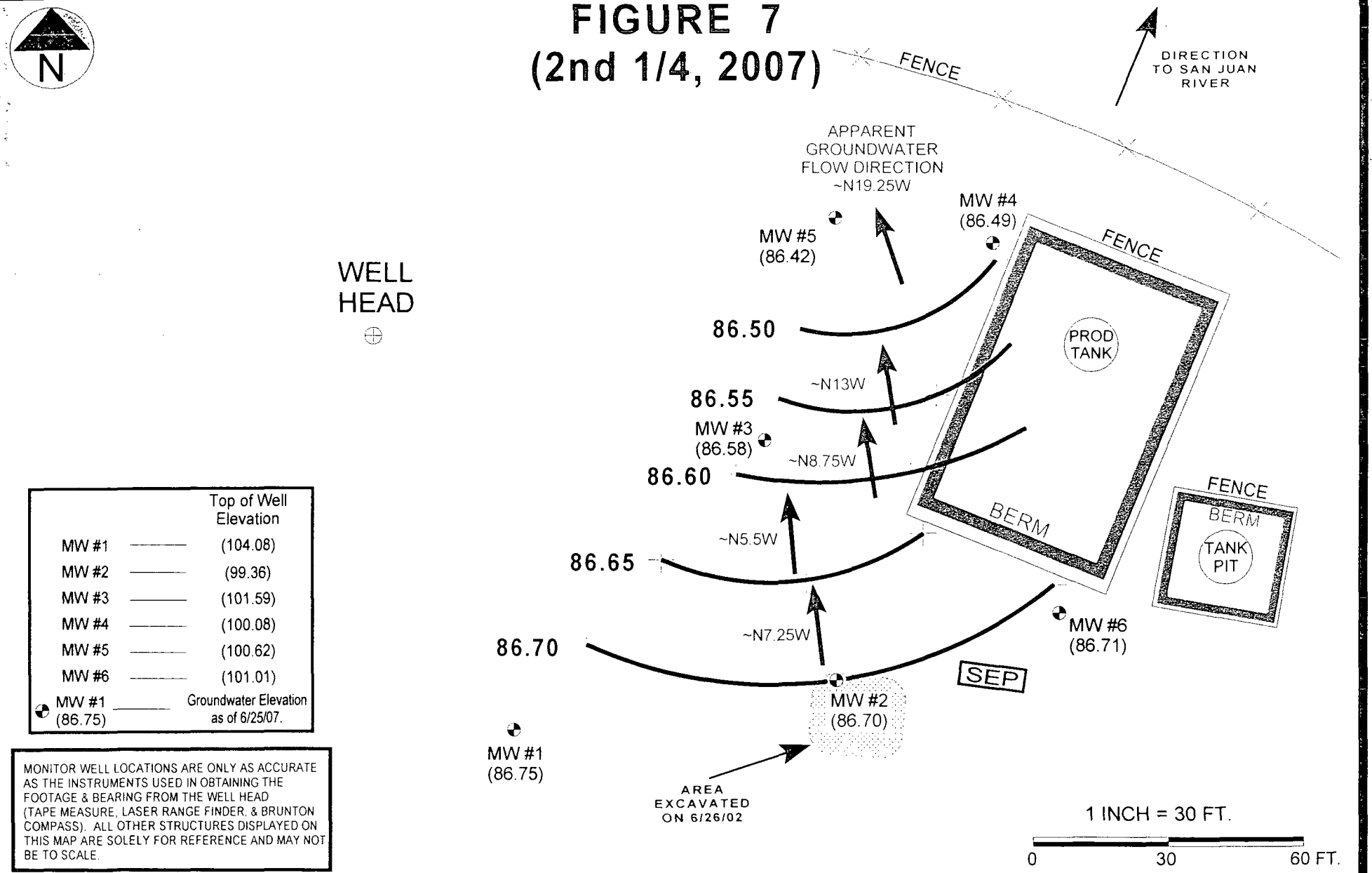
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 05-31-07-GW.SKF
REVISED: 05-31-07 NJV

GROUNDWATER CONTOUR MAP
05/07

FIGURE 7
(2nd 1/4, 2007)



	Top of Well Elevation
MW #1	(104.08)
MW #2	(99.36)
MW #3	(101.59)
MW #4	(100.08)
MW #5	(100.62)
MW #6	(101.01)
MW #1 (86.75)	Groundwater Elevation as of 6/25/07.

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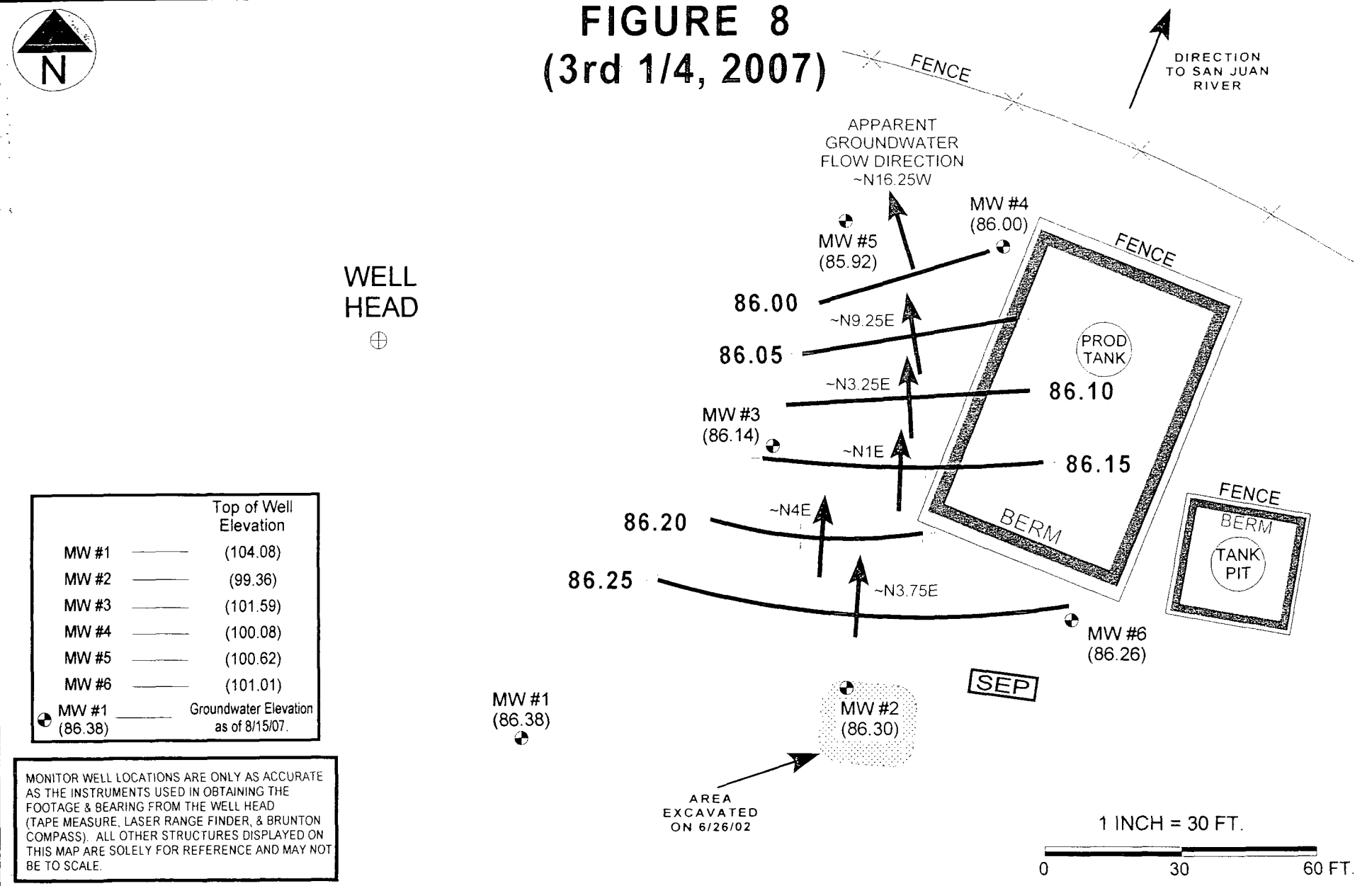
PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 06-25-07-GW.SKF
REVISED: 06-25-07 NJV

GROUNDWATER CONTOUR MAP
06/07

FIGURE 8
(3rd 1/4, 2007)



	Top of Well Elevation
MW #1	(104.08)
MW #2	(99.36)
MW #3	(101.59)
MW #4	(100.08)
MW #5	(100.62)
MW #6	(101.01)
MW #1 (86.38)	Groundwater Elevation as of 8/15/07.

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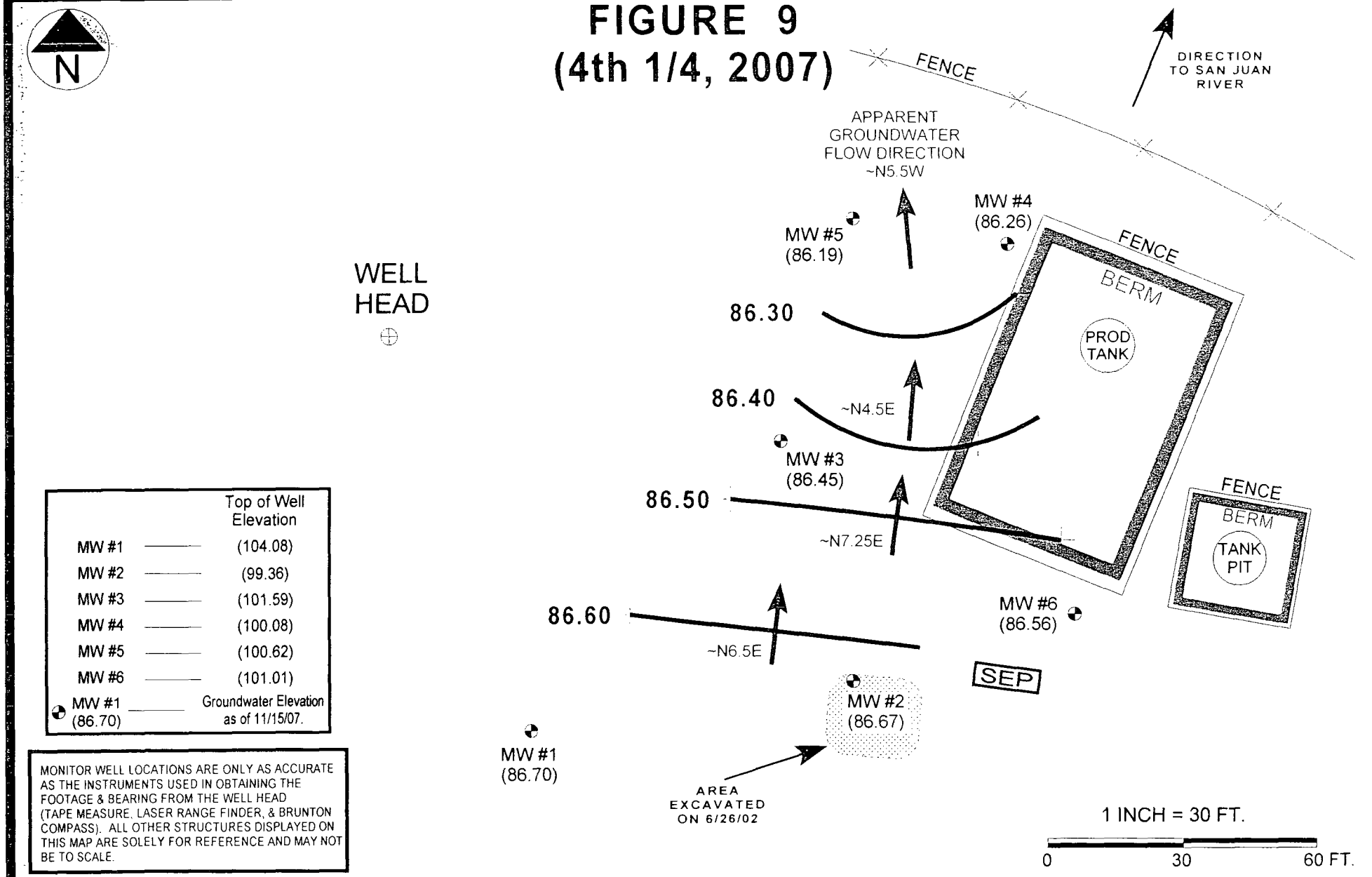
BLOOMFIELD, NEW MEXICO 87413
PHONE (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 08-15-07-GW.SKF
REVISED: 08-15-07 NJV

GROUNDWATER CONTOUR MAP
08/07

FIGURE 9
(4th 1/4, 2007)



	Top of Well Elevation
MW #1	(104.08)
MW #2	(99.36)
MW #3	(101.59)
MW #4	(100.08)
MW #5	(100.62)
MW #6	(101.01)
MW #1 (86.70)	Groundwater Elevation as of 11/15/07.

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P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 11-15-07-GW.SKF
REVISED: 11-15-07 NJV

GROUNDWATER CONTOUR MAP
11/07

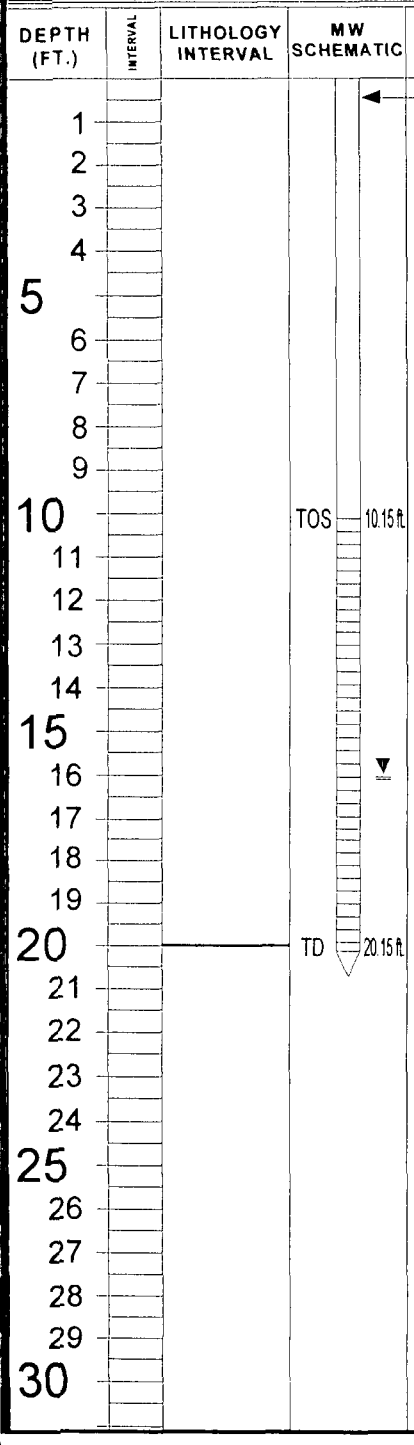
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #1

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION COMPANY
LOCATION NAME:	GCU # 188 PROD. TANK PIT - UNIT J, SEC. 30, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	129.5 FEET, S53.5E FROM WELL HEAD.

BORING #.....	BH - 2
MW #.....	1
PAGE #.....	2
DATE STARTED	7/13/06
DATE FINISHED	7/13/06
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APROX. 1.90 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 20.0 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 16.08 FT. BELOW GRADE, MEASURED 7/27/06.

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 1.90 ft. above grade to 10.15 ft. below grade, 0.010 slotted screen between 10.15 to 20.15 feet below grade, sand packed annular to 8 ft. below grade, bentonite chips from 6 to 8 ft. below grade, clean fill to 3 ft. below grade, bentonite chips to surface. Cemented well protector around above grade casing and secured with padlock.

DRAWING: GCU-188-BH2-MW1. SKF | DATE: 7/27/06 | DWN BY: NJV

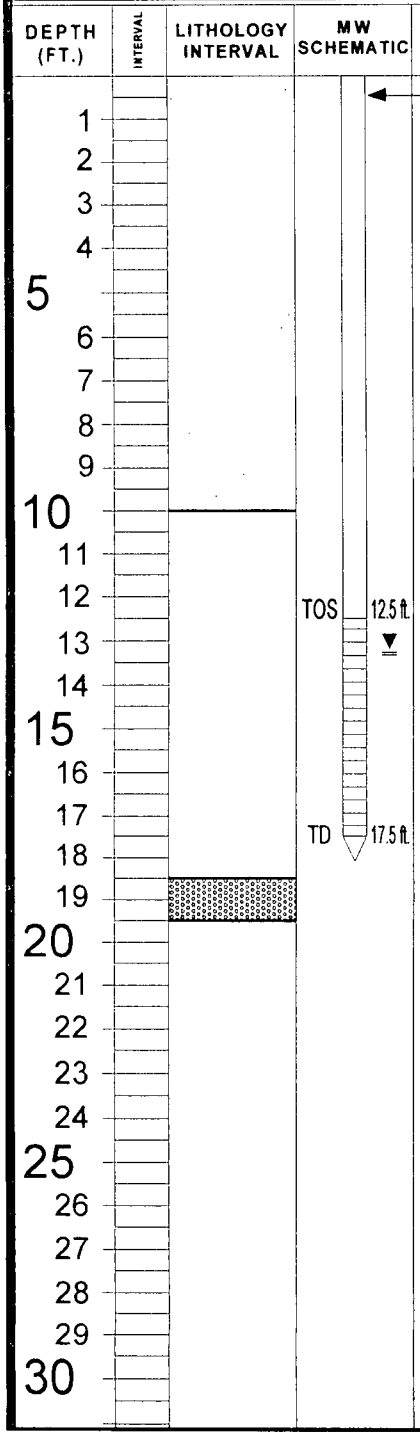
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #2

BORE / TEST HOLE REPORT

BORING #.....	BH - 1
MW #.....	2
PAGE #.....	1
DATE STARTED	3/11/03
DATE FINISHED	3/11/03
OPERATOR.....	JCB
PREPARED BY	NJV

CLIENT: BP AMERICA PRODUCTION COMPANY
LOCATION NAME: GCU # 188 PROD. TANK PIT - UNIT J, SEC. 30, T29N, R12W
CONTRACTOR: **BLAGG ENGINEERING, INC.**
EQUIPMENT USED: **MOBILE DRILL RIG (EARTHPROBE 200)**
BORING LOCATION: 129.5 FEET, S53.5E FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APROX. AT GRADE.

BACKFILL MATERIAL - DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 10.0 FT. BELOW GRADE).

SAMPLE 1 @ 8 FT. - CONDUCTED DURING TEST HOLE ADVANCEMENT ON 6/26/02; TIME COLLECTED 1005. OVM = **780** ppm; TPH = **2,190** ppm; Benzene = **ND** ppb; Total BTEX = **785** ppb (see Pit Closure Field Report for additional information).

MEDIUM GRAY TO BLACK SAND, NON COHESIVE, MOIST TO SATURATED, STRONG HYDRO - CARBON ODOR DETECTED WITHIN CUTTINGS (10.0 - 18.5 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 13.41 FT. BELOW GRADE, MEASURED 7/27/06.

BH1 @ 14 FT. - CONDUCTED DURING DRILLING ON 3/11/03; TIME COLLECTED 1050.
TPH = **497** ppm (Envirotech)
TPH = **3,400** ppm (iina ba lab - formerly On-Site Technology)
TPH = **3,390** ppm. (Hall Environmental).

BLACK SAND & GRAVEL, NON COHESIVE, SATURATED, STRONG HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS, (18.5 - 19.5 FT. BELOW GRADE).

NOTES:
- SAND.
- SAND & GRAVEL.
- **OVM** - organic vapor meter or PID (photoionization detector).
- **ppm** - parts per million.
- **ppb** - parts per billion.
- **TPH** - total petroleum hydrocarbons (US Epa modified method 8015B).
- **BTEX** - benzene, toluene, ethylbenzene, & total xylenes (US Epa method 8021B).
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

OVM CALIBRATION:
129.7 ppm; RF = 0.52 (RF = response factor).
250 ppm calibration gas - isobutylene.
Date - 6/26/02.
Time - 1024.

Monitor well consist of 2 inch PVC piping - casing from grade to 12.50 ft. below grade, 0.010 slotted screen between 12.50 to 17.50 feet below grade, sand packed annular to 1 ft. below grade. Slip cap at top of casing.

DRAWING: **GCU 188-BH1-MW2. SKF** | DATE: **5/13/03** | DWN BY: **NJV**

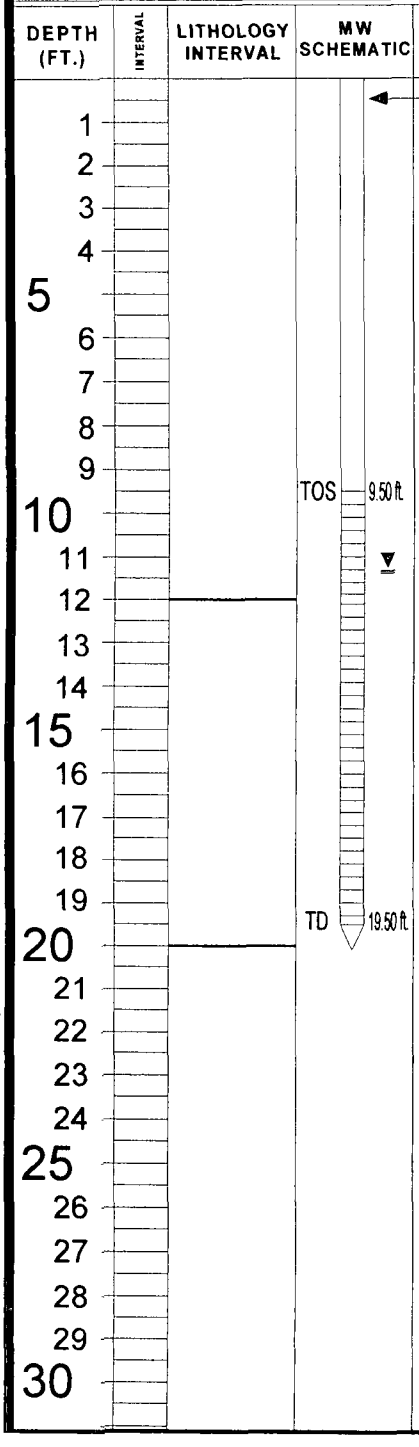
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #3

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION COMPANY
LOCATION NAME:	GCU # 188 PROD. TANK PIT - UNIT J, SEC. 30, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE 200)
BORING LOCATION:	91 FEET, S75E FROM WELL HEAD.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	7/13/06
DATE FINISHED	7/13/06
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APROX. 2.40 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 12.0 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 11.37 FT. BELOW GRADE, MEASURED 7/27/06.

SAMPLE BH3 @ 12 FT. - TIME COLLECTED 1004, OVM = **314** ppm (collected from auger cuttings - depth of sample uncertain).

DARK YELLOWISH ORANGE/MEDIUM GRAY SAND MIX, PHASING INTO MEDIUM DARK GRAY SAND, NON COHESIVE, MOIST TO SATURATED, STRONG HYDROCARBON ODOR DETECTED WITHIN CUTTINGS (12.0 - 20.0 FT. BELOW GRADE).

NOTES: ▭ - SAND.

- **OVM** - organic vapor meter or PID (photoionization detector).
- **ppm** - parts per million.
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

OVM CALIBRATION:
53.8 ppm; RF = 0.52 (RF = response factor).
100 ppm calibration gas - isobutylene.
Date - 7/13/06.
Time - 1011.

Monitor well consist of 2 inch PVC piping - casing from 2.40 ft. above grade to 9.50 ft. below grade, 0.010 slotted screen between 9.50 to 19.50 feet below grade, sand packed annular to 7 ft. below grade, bentonite chips from 5 to 7 ft. below grade, clean fill to 3 ft. below grade, bentonite chips to surface. Cemented well protector around above grade casing and secured with padlock.

DRAWING: GCU 188-BH3-MW3. SKF | DATE: 7/27/06 | DWN BY: NJV

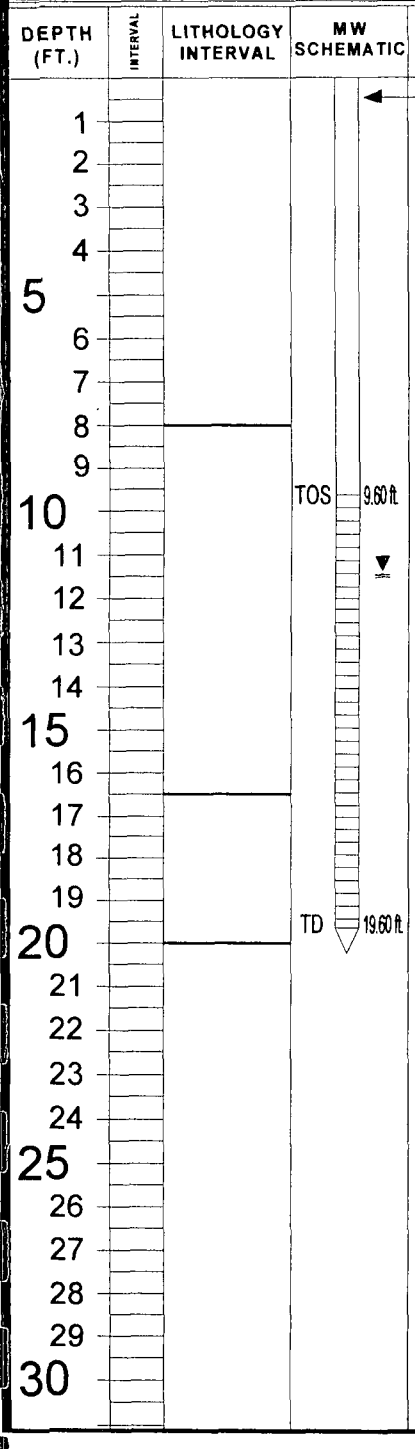
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #4

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION COMPANY
LOCATION NAME:	GCU # 188 PROD. TANK PIT - UNIT J, SEC. 30, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	140 FEET, N81.75E FROM WELL HEAD.

BORING #.....	BH - 4
MW #.....	4
PAGE #.....	4
DATE STARTED	5/23/07
DATE FINISHED	5/23/07
OPERATOR.....	DP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APROX. 2.25 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 8.0 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 11.40 FT. BELOW GRADE, MEASURED 5/30/06.

MEDIUM GRAY SAND, NON COHESIVE, MOIST TO SATURATED, FIRM TO LOOSE, SLIGHT TO STRONG HYDROCARBON ODOR DETECTED WITHIN CUTTINGS (8.0 - 16.5 FT. BELOW GRADE).

BROWNISH GRAY SAND & GRAVEL, NON COHESIVE, SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS, (16.5 - 20.0 FT. BELOW GRADE).

NOTES:
- SAND.
- SAND & GRAVEL.

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 2.25 ft. above grade to 9.60 ft. below grade, 0.010 slotted screen between 9.60 to 19.60 feet below grade, sand packed annular to 7 ft. below grade, bentonite chips from 4 to 7 ft. below grade, clean fill to grade. Cemented well protector around above grade casing and secured with padlock.

DRAWING: GCU 188-BH4-MW4. SKF | DATE: 5/30/07 | DWN BY: NJV

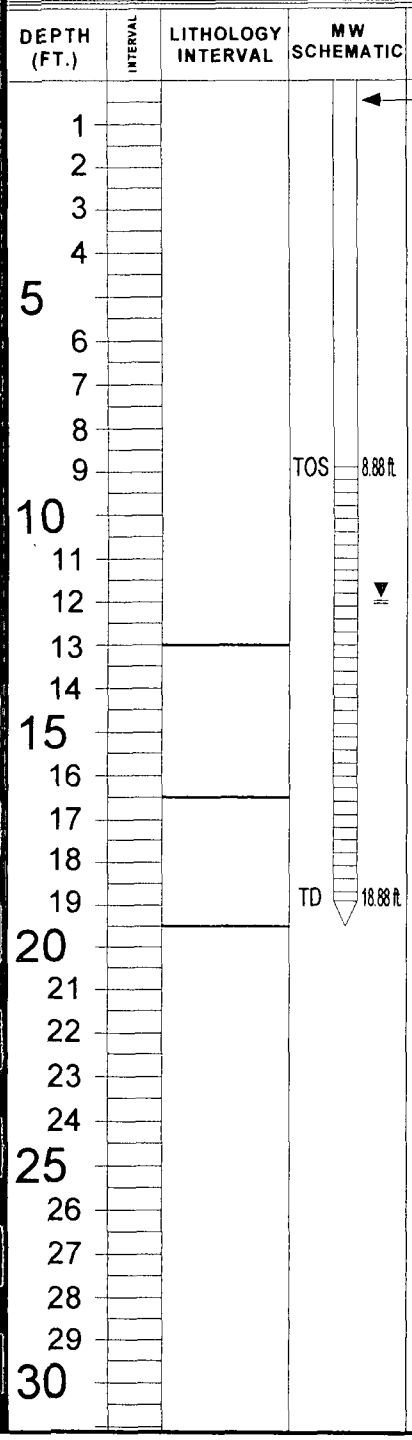
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #5

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION COMPANY
LOCATION NAME:	GCU # 188 PROD. TANK PIT - UNIT J, SEC. 30, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	107 FEET, N76E FROM WELL HEAD.

BORING #.....	BH - 5
MW #.....	5
PAGE #.....	5
DATE STARTED	5/24/07
DATE FINISHED	5/24/07
OPERATOR.....	DP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APROX. 2.40 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 13.0 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 11.84 FT. BELOW GRADE, MEASURED 5/30/06.

MEDIUM TO MEDIUM DARK GRAY SAND, NON COHESIVE, SLIGHTLY MOIST TO WET, FIRM, STRONG APPARENT HYDROCARBON ODOR DETECTED WITHIN CUTTINGS (13.0 - 16.5 FT. BELOW GRADE).

BROWNISH GRAY SAND & GRAVEL, NON COHESIVE, SATURATED, FIRM TO DENSE, SLIGHT APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (16.5 - 19.5 FT. BELOW GRADE).

NOTES:
- SAND.
- SAND & GRAVEL.

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 2.40 ft. above grade to 8.88 ft. below grade, 0.010 slotted screen between 8.88 to 18.88 feet below grade, sand packed annular to 6 ft. below grade, bentonite chips from 3 to 6 ft. below grade, clean fill to grade. Cemented well protector around above grade casing and secured with padlock.

DRAWING: GCU 188-BH5-MW5. SKF | DATE: 5/30/07 | DWN BY: NJV

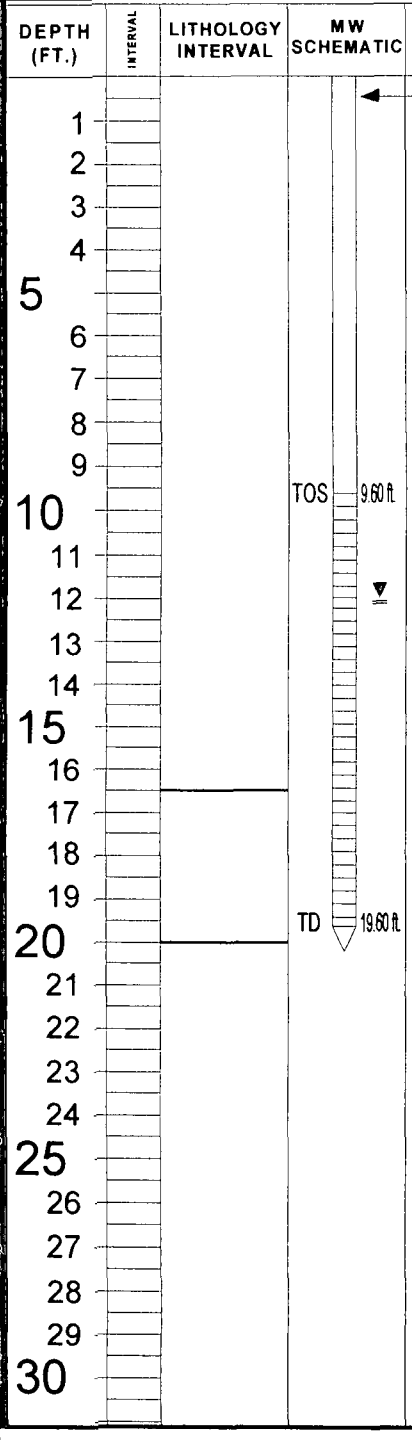
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #6

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION COMPANY
LOCATION NAME:	GCU # 188 PROD. TANK PIT - UNIT J, SEC. 30, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	166 FEET, S68E FROM WELL HEAD.

BORING #.....	BH - 6
MW #.....	6
PAGE #.....	6
DATE STARTED	5/24/07
DATE FINISHED	5/24/07
OPERATOR.....	DP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APROX. 2.30 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE TO PALE YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 16.5 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 12.06 FT. BELOW GRADE, MEASURED 5/30/06.

PALE YELLOWISH BROWN SAND & GRAVEL, NON COHESIVE, SATURATED, FIRM TO DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (16.5 - 20.0 FT. BELOW GRADE).

NOTES:
- SAND.
- SAND & GRAVEL.

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 2.30 ft. above grade to 9.60 ft. below grade, 0.010 slotted screen between 9.60 to 19.60 feet below grade, sand packed annular to 6 ft. below grade, bentonite chips from 3 to 6 ft. below grade, clean fill to grade. Cemented well protector around above grade casing and secured with padlock.

DRAWING: GCU 188-BH6-MW6. SKF | DATE: 5/30/07 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GCU # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

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	104.08	86.06	18.02	22.05	0925	6.77	2,700	22.2	2.00
MW - 2	99.38	85.93	13.45	17.50	1000	6.68	2,300	24.1	2.00
MW - 3	101.59	85.78	15.81	21.90	1040	6.84	2,400	24.9	3.00
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	08/03/06	0755		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in all MW 's . Collected BTEX and major Anions / Cations from all MW 's .

Top of casing MW # 1 ~ 1.90 ft., MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Aug-06*

CLIENT: Blagg Engineering
Project: GCU #188
Lab Order: 0608080

Lab ID: 0608080-01 **Collection Date:** 8/3/2006 9:25:00 AM
Client Sample ID: MW #1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	8/7/2006 11:19:52 AM
Toluene	ND	1.0		µg/L	1	8/7/2006 11:19:52 AM
Ethylbenzene	ND	1.0		µg/L	1	8/7/2006 11:19:52 AM
Xylenes, Total	ND	3.0		µg/L	1	8/7/2006 11:19:52 AM
Surr: 4-Bromofluorobenzene	88.4	72.2-125		%REC	1	8/7/2006 11:19:52 AM

Lab ID: 0608080-02 **Collection Date:** 8/3/2006 10:00:00 AM
Client Sample ID: MW #2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	2.4	1.0		µg/L	1	8/7/2006 11:49:51 AM
Toluene	2.9	1.0		µg/L	1	8/7/2006 11:49:51 AM
Ethylbenzene	3.6	1.0		µg/L	1	8/7/2006 11:49:51 AM
Xylenes, Total	72	3.0		µg/L	1	8/7/2006 11:49:51 AM
Surr: 4-Bromofluorobenzene	106	72.2-125		%REC	1	8/7/2006 11:49:51 AM

Lab ID: 0608080-03 **Collection Date:** 8/3/2006 10:40:00 AM
Client Sample ID: MW #3 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	16	10		µg/L	10	8/8/2006 10:02:38 AM
Toluene	22	10		µg/L	10	8/8/2006 10:02:38 AM
Ethylbenzene	220	10		µg/L	10	8/8/2006 10:02:38 AM
Xylenes, Total	1400	30		µg/L	10	8/8/2006 10:02:38 AM
Surr: 4-Bromofluorobenzene	101	72.2-125		%REC	10	8/8/2006 10:02:38 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
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
S	Spike Recovery outside accepted recovery limits		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #1	Date Reported:	08-04-06
Laboratory Number:	38046	Date Sampled:	08-03-06
Chain of Custody:	14550	Date Received:	08-03-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-04-06
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**6.86**	s.u.		
Conductivity @ 25° C	**3,360**	umhos/cm		
Total Dissolved Solids @ 180C	**2,910**	mg/L		
Total Dissolved Solids (Calc)	**2,870**	mg/L		
SAR	**4.5**	ratio		
Total Alkalinity as CaCO3	**440**	mg/L		
Total Hardness as CaCO3	**1,400**	mg/L		
Bicarbonate as HCO3	**440**	mg/L	7.21	meq/L
Carbonate as CO3	**<0.1**	mg/L	0.00	meq/L
Hydroxide as OH	**<0.1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.04**	mg/L	0.00	meq/L
Nitrite Nitrogen	**<0.01**	mg/L	0.00	meq/L
Chloride	**30.8**	mg/L	0.87	meq/L
Fluoride	**0.56**	mg/L	0.03	meq/L
Phosphate	**<0.01**	mg/L	0.00	meq/L
Sulfate	**1,760**	mg/L	36.64	meq/L
Iron	**<0.001**	mg/L	0.00	meq/L
Calcium	**219**	mg/L	10.93	meq/L
Magnesium	**206**	mg/L	16.95	meq/L
Potassium	**3.76**	mg/L	0.10	meq/L
Sodium	**386.0**	mg/L	16.79	meq/L
Cations			44.77	meq/L
Anions			44.75	meq/L
Cation/Anion Difference			**0.03%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **GCU #188 Grab Sample**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #2	Date Reported:	08-04-06
Laboratory Number:	38047	Date Sampled:	08-03-06
Chain of Custody:	14550	Date Received:	08-03-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-04-06
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**6.75**	s.u.		
Conductivity @ 25° C	**2,710**	umhos/cm		
Total Dissolved Solids @ 180C	**2,310**	mg/L		
Total Dissolved Solids (Calc)	**2,320**	mg/L		
SAR	**2.8**	ratio		
Total Alkalinity as CaCO3	**720**	mg/L		
Total Hardness as CaCO3	**1,300**	mg/L		
Bicarbonate as HCO3	**720**	mg/L	11.80	meq/L
Carbonate as CO3	**<0.1**	mg/L	0.00	meq/L
Hydroxide as OH	**<0.1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.06**	mg/L	0.00	meq/L
Nitrite Nitrogen	**<0.01**	mg/L	0.00	meq/L
Chloride	**10.4**	mg/L	0.29	meq/L
Fluoride	**0.76**	mg/L	0.04	meq/L
Phosphate	**<0.01**	mg/L	0.00	meq/L
Sulfate	**1,150**	mg/L	23.94	meq/L
Iron	**<0.001**	mg/L	0.00	meq/L
Calcium	**431**	mg/L	21.51	meq/L
Magnesium	**52.4**	mg/L	4.31	meq/L
Potassium	**1.84**	mg/L	0.05	meq/L
Sodium	**234**	mg/L	10.18	meq/L
Cations			36.04	meq/L
Anions			36.08	meq/L
Cation/Anion Difference			**0.09%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **GCU #188 Grab Sample**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #3	Date Reported:	08-04-06
Laboratory Number:	38048	Date Sampled:	08-03-06
Chain of Custody:	14550	Date Received:	08-03-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-04-06
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**7.08**	s.u.		
Conductivity @ 25° C	**2,850**	umhos/cm		
Total Dissolved Solids @ 180C	**2,300**	mg/L		
Total Dissolved Solids (Calc)	**2,310**	mg/L		
SAR	**3.9**	ratio		
Total Alkalinity as CaCO3	**550**	mg/L		
Total Hardness as CaCO3	**1,180**	mg/L		
Bicarbonate as HCO3	**550**	mg/L	9.01	meq/L
Carbonate as CO3	**<0.1**	mg/L	0.00	meq/L
Hydroxide as OH	**<0.1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.07**	mg/L	0.00	meq/L
Nitrite Nitrogen	**<0.01**	mg/L	0.00	meq/L
Chloride	**29.1**	mg/L	0.82	meq/L
Fluoride	**0.40**	mg/L	0.02	meq/L
Phosphate	**<0.01**	mg/L	0.00	meq/L
Sulfate	**1,290**	mg/L	26.86	meq/L
Iron	**0.223**	mg/L	0.01	meq/L
Calcium	**160**	mg/L	7.98	meq/L
Magnesium	**187**	mg/L	15.39	meq/L
Potassium	**1.20**	mg/L	0.03	meq/L
Sodium	**305**	mg/L	13.27	meq/L
Cations			36.67	meq/L
Anions			36.72	meq/L
Cation/Anion Difference			**0.12%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **GCU #188 Grab Sample**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other: _____

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

Client: BLAGG ENGR. / BP AMERICA
Address: P.O. BOX 87 BLFD., NM 87413
Phone #: 632-1199
Fax #:

Project Name: GCU #188
Project #: NV
Project Manager: NV
Sampler: NV
Sample Temperature: 4.0

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
8/3/06	0925	WATER	MW #1	2-40ml	✓			0608080 1
								1
8/3/06	1000	WATER	MW #2	2-40ml	✓			2
								2
8/3/06	1040	WATER	MW #3	2-40ml	✓			3
								3

ANALYSIS REQUEST

(BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	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)
✓																
✓																
✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
8/4/06	1100			8-7-06 @ 930
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

CHAIN OF CUSTODY RECORD

14550

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / BP	GCU #188	
Sampler: NV	Client No. 94034-010	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	MAJOR ANIONS / CATIONS					Remarks
											PRESERVED COOL
											GRAB SAMPLES
MW #1	8/3/06	0925	38046	WATER	1	✓					
MW #2	8/3/06	1000	38047	WATER	1	✓					
MW #3	8/3/06	1040	38048	WATER	1	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	8/3/06	1440	Rhonda Nault	8/3/06	1440
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188
Work Order: 0608080

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: 5ML RB		*MBLK*			Batch ID: **R20214**		Analysis Date:	8/8/2006 8:22:39 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 LCS		*LCS*			Batch ID: **R20214**		Analysis Date:	8/8/2006 10:32:48 AM	
Benzene	22.74	µg/L	1.0	114	85	115			
Toluene	22.72	µg/L	1.0	114	85	118			
Ethylbenzene	22.41	µg/L	1.0	112	85	116			
Xylenes, Total	46.40	µg/L	3.0	116	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
- 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 Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 8/4/2006

Work Order Number 0608080 | Received by GLS

Checklist completed by B Schlyper 8-7-06
Signature | Date

Matrix | Carrier name Greyhound

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 - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

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 # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : October 30, 2006

SAMPLER : N J V

Filename : 10-30-06.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	104.08	86.29	17.79	22.05	-	-	-	-	-
MW - 2	99.38	86.15	13.23	17.50	-	-	-	-	-
MW - 3	101.59	85.99	15.60	21.90	1410	6.87	2,500	19.4	3.25
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	10/27/06	0845		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 3 . Collected BTEX from MW # 3 only .

Top of casing MW # 1 ~ 1.90 ft. , MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Nov-06*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3
Lab Order:	0611007	**Collection Date:**	10/30/2006 2:10:00 PM
Project:	GCU #188	**Date Received:**	11/1/2006
Lab ID:	0611007-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	13	10		µg/L	10	11/3/2006 2:32:16 PM
Toluene	ND	10		µg/L	10	11/3/2006 2:32:16 PM
Ethylbenzene	190	10		µg/L	10	11/3/2006 2:32:16 PM
Xylenes, Total	1000	30		µg/L	10	11/3/2006 2:32:16 PM
Surr: 4-Bromofluorobenzene	85.9	72.2-125		%REC	10	11/3/2006 2:32:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	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		

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

Client: BLAGG ENGR. / BP AMERICA

Project Name: GCU #188

Address: P.O. BOX 87
BLFD., NM 87413

Project #: 96

Project Manager: NV

Phone #: 632-1199

Sampler: NV

Fax #:

Sample Temperature: 3°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
10/30/06	1410	WATER	MW #3	2-40ml	✓			0611007-1

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

ANALYSIS REQUEST

(BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gasoline Only)	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)
✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
10/31/06	1700			~~10~~ 11-1-06 10:10
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188 **Work Order:** 0611007

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R21272**	Analysis Date:		11/2/2006 8:24:59 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: 5ML REAGENT BLA		*MBLK*			Batch ID:	**R21286**	Analysis Date:		11/3/2006 8:55:37 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:	**R21272**	Analysis Date:		11/2/2006 5:13:35 PM
Benzene	18.71	µg/L	1.0	93.6	85	115			
Toluene	18.92	µg/L	1.0	94.6	85	118			
Ethylbenzene	18.78	µg/L	1.0	91.3	85	116			
Xylenes, Total	37.98	µg/L	3.0	91.3	85	119			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R21286**	Analysis Date:		11/3/2006 7:10:49 PM
Benzene	19.89	µg/L	1.0	99.4	85	115			
Toluene	20.41	µg/L	1.0	102	85	118			
Ethylbenzene	20.50	µg/L	1.0	103	85	116			
Xylenes, Total	61.61	µg/L	3.0	103	85	119			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R21272**	Analysis Date:		11/2/2006 5:43:34 PM
Benzene	18.94	µg/L	1.0	94.7	85	115	1.18	27	
Toluene	19.35	µg/L	1.0	96.7	85	118	2.23	19	
Ethylbenzene	19.05	µg/L	1.0	92.6	85	116	1.45	10	
Xylenes, Total	39.18	µg/L	3.0	94.3	85	119	3.11	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: 11/1/2006

Work Order Number 0611007 | Received by GLS

Checklist completed by Signature _____ Date 11-1-06

Matrix | Carrier name Greyhound

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 - 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 # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : February 22, 2007

SAMPLER : N J V

Filename : 02-22-07.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.)
MW - 1	104.08	86.76	17.32	22.05	-	-	-	-	-
MW - 2	99.38	86.64	12.74	17.50	-	-	-	-	-
MW - 3	101.59	86.47	15.12	21.90	0925	7.01	2,400	10.4	3.50
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	02/21/07	0845		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 3 . Collected BTEX from MW # 3 only .

Top of casing MW # 1 ~ 1.90 ft., MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Feb-07*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3
Lab Order:	0702272	**Collection Date:**	2/22/2007 9:25:00 AM
Project:	GCU #188	**Date Received:**	2/23/2007
Lab ID:	0702272-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	13	1.0		µg/L	1	2/24/2007 12:14:54 AM
Toluene	12	1.0		µg/L	1	2/24/2007 12:14:54 AM
Ethylbenzene	250	10		µg/L	10	2/26/2007 2:12:27 PM
Xylenes, Total	1300	30		µg/L	10	2/26/2007 2:12:27 PM
Surr: 4-Bromofluorobenzene	90.3	70.2-105		%REC	1	2/24/2007 12:14:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	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		

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

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

Client: BLAGG ENGR./BP AMERICA
Address: P.O. BOX 87 BLFD. NM 87413
Phone #: 632-1199
Fax #:

Project Name: GCU #188
Project #:
Project Manager: NV
Sampler: NV
Sample Temperature: 2°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
2/22/07	0925	WATER	MW #3	2-40ml	✓			0702272 -1

BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	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)
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	
2/22/07	0940			2/23/07 0900
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188
Work Order: 0702272

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML REAGENT BLA		*MBLK*			Batch ID:	**R22594**	Analysis Date:	2/23/2007 8:08:20 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: 5ML REAGENT BLA		*MBLK*			Batch ID:	**R22614**	Analysis Date:	2/26/2007 8:16:58 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:	**R22594**	Analysis Date:	2/23/2007 8:14:12 PM	
Benzene	20.52	µg/L	1.0	103	85.9	113			
Toluene	20.30	µg/L	1.0	102	86.4	113			
Ethylbenzene	20.25	µg/L	1.0	101	83.5	118			
Xylenes, Total	61.56	µg/L	2.0	103	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R22614**	Analysis Date:	2/26/2007 6:48:45 PM	
Benzene	20.37	µg/L	1.0	102	85.9	113			
Toluene	20.43	µg/L	1.0	102	86.4	113			
Ethylbenzene	20.39	µg/L	1.0	102	83.5	118			
Xylenes, Total	62.07	µg/L	2.0	103	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	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 2/23/2007

Work Order Number 0702272 | Received by TLS

Checklist completed by [signature] Signature | 2-23-07 Date

Matrix | Carrier name Greyhound

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?	2°	*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 # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **May 8, 2007**

SAMPLER : N J V

Filename : **05-08-07.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.)
MW - 1	104.08	86.59	17.49	22.05	-	-	-	-	-
MW - 2	99.38	86.50	12.88	17.50	-	-	-	-	-
MW - 3	101.59	86.36	15.23	21.90	1000	6.83	2,400	17.3	3.25
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	05/08/07	0740		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 3 . Collected sample for BTEX analysis from MW # 3 only .

Top of casing MW # 1 ~ 1.90 ft., MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-07*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3
Lab Order:	0705144	**Collection Date:**	5/8/2007 10:00:00 AM
Project:	GCU #188	**Date Received:**	5/10/2007
Lab ID:	0705144-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	8.1	1.0		µg/L	1	5/11/2007 3:09:51 PM
Toluene	6.6	1.0		µg/L	1	5/11/2007 3:09:51 PM
Ethylbenzene	190	10		µg/L	10	5/11/2007 2:39:43 PM
Xylenes, Total	860	20		µg/L	10	5/11/2007 2:39:43 PM
Surr: 4-Bromofluorobenzene	94.4	70.2-105		%REC	1	5/11/2007 3:09:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	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		

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other: _____

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

Client: FLAGG ENER. / BP AMERICA
Project Name: GCU #188
Address: P.O. BOX 87 BLFD., NM 87413
Project #:
Project Manager: NV
Phone #: 632-1199
Sampler: NV
Fax #:
Sample Temperature: 5°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
5/8/07	1000	WATER	MW #3	2-40ml	✓			0705144 1

ANALYSIS REQUEST

(BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	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)
✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
5/9/07	1500	Nelson Velez		
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
				5/10/07 1412

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188 **Work Order:** 0705144

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML REAGENT BLA		*MBLK*			Batch ID: **R23571**		Analysis Date: 5/11/2007 8:12:17 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						

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: 5/10/2007

Work Order Number 0705144 | Received by TLS

Checklist completed by Signature May 10,07 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?	5°	*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 & 2004

GCU # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL
ENVIROTECH

Date : May 31, 2007

SAMPLER : N J V

Filename : 05-31-07.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	104.08	86.73	17.35	22.05	-	-	-	-	-
2	99.36	86.66	12.70	17.50	-	-	-	-	-
3	101.59	86.54	15.05	21.90	-	-	-	-	-
4	100.08	86.43	13.65	21.85	1105	6.91	2,200	22.6	4.00
5	100.62	86.37	14.25	21.28	1120	7.00	2,200	20.6	2.00
6	101.01	86.64	14.37	21.90	1020	6.93	1,400	20.5	3.75
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	05/31/07	0715		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 4 & # 6 , poor / fair in MW # 5 , all three murky brown in appearance .
Collected samples from MW # 4 , # 5 , & # 6 for BTEX and major anions / cations analyses .

Top of casing MW # 1 ~ 1.90 ft. , MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.25 ft. , MW # 5 ~ 2.40 ft. , MW # 6 ~ 2.30 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Jun-07*

CLIENT: Blagg Engineering
Project: GCU #188
Lab Order: 0706015

Lab ID: 0706015-01 **Collection Date:** 5/31/2007 11:05:00 AM
Client Sample ID: MW #4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	10		µg/L	10	6/8/2007 11:23:45 AM
Toluene	27	10		µg/L	10	6/8/2007 11:23:45 AM
Ethylbenzene	ND	10		µg/L	10	6/8/2007 11:23:45 AM
Xylenes, Total	1300	20		µg/L	10	6/8/2007 11:23:45 AM
Surr: 4-Bromofluorobenzene	92.1	70.2-105		%REC	10	6/8/2007 11:23:45 AM

Lab ID: 0706015-02 **Collection Date:** 5/31/2007 11:20:00 AM
Client Sample ID: MW #5 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	11	10		µg/L	10	6/8/2007 12:59:18 PM
Toluene	32	10		µg/L	10	6/8/2007 12:59:18 PM
Ethylbenzene	790	50		µg/L	50	6/8/2007 12:26:37 PM
Xylenes, Total	4400	100		µg/L	50	6/8/2007 12:26:37 PM
Surr: 4-Bromofluorobenzene	89.6	70.2-105		%REC	10	6/8/2007 12:59:18 PM

Lab ID: 0706015-03 **Collection Date:** 5/31/2007 10:20:00 AM
Client Sample ID: MW #6 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	6/8/2007 1:59:24 PM
Toluene	ND	1.0		µg/L	1	6/8/2007 1:59:24 PM
Ethylbenzene	ND	1.0		µg/L	1	6/8/2007 1:59:24 PM
Xylenes, Total	ND	2.0		µg/L	1	6/8/2007 1:59:24 PM
Surr: 4-Bromofluorobenzene	89.5	70.2-105		%REC	1	6/8/2007 1:59:24 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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #4	Date Reported:	06-01-07
Laboratory Number:	41742	Date Sampled:	05-31-07
Chain of Custody:	2004	Date Received:	05-31-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	06-01-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**7.27**	s.u.		
Conductivity @ 25° C	**2,910**	umhos/cm		
Total Dissolved Solids @ 180C	**2,230**	mg/L		
Total Dissolved Solids (Calc)	**2,030**	mg/L		
SAR	**32.6**	ratio		
Total Alkalinity as CaCO3	**432**	mg/L		
Total Hardness as CaCO3	**80.2**	mg/L		
Bicarbonate as HCO3	**432**	mg/L	7.08	meq/L
Carbonate as CO3	**<0.1**	mg/L	0.00	meq/L
Hydroxide as OH	**<0.1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.29**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.03**	mg/L	0.00	meq/L
Chloride	**368**	mg/L	10.38	meq/L
Fluoride	**1.44**	mg/L	0.08	meq/L
Phosphate	**1.29**	mg/L	0.04	meq/L
Sulfate	**667**	mg/L	13.89	meq/L
Iron	**0.003**	mg/L	0.00	meq/L
Calcium	**22.9**	mg/L	1.14	meq/L
Magnesium	**5.60**	mg/L	0.46	meq/L
Potassium	**26.0**	mg/L	0.67	meq/L
Sodium	**671**	mg/L	29.19	meq/L
Cations			31.46	meq/L
Anions			31.47	meq/L
Cation/Anion Difference			**0.04%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **GCU #188** **Grab Sample**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #5	Date Reported:	06-01-07
Laboratory Number:	41743	Date Sampled:	05-31-07
Chain of Custody:	2004	Date Received:	05-31-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	06-01-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**7.39**	s.u.		
Conductivity @ 25° C	**2,820**	umhos/cm		
Total Dissolved Solids @ 180C	**2,260**	mg/L		
Total Dissolved Solids (Calc)	**2,120**	mg/L		
SAR	**25.1**	ratio		
Total Alkalinity as CaCO3	**271**	mg/L		
Total Hardness as CaCO3	**138**	mg/L		
Bicarbonate as HCO3	**271**	mg/L	4.44	meq/L
Carbonate as CO3	**<0.1**	mg/L	0.00	meq/L
Hydroxide as OH	**<0.1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.47**	mg/L	0.01	meq/L
Nitrite Nitrogen	**0.03**	mg/L	0.00	meq/L
Chloride	**409**	mg/L	11.54	meq/L
Fluoride	**1.08**	mg/L	0.06	meq/L
Phosphate	**5.20**	mg/L	0.16	meq/L
Sulfate	**795**	mg/L	16.55	meq/L
Iron	**0.037**	mg/L	0.00	meq/L
Calcium	**39.4**	mg/L	1.97	meq/L
Magnesium	**9.60**	mg/L	0.79	meq/L
Potassium	**22.6**	mg/L	0.58	meq/L
Sodium	**676**	mg/L	29.41	meq/L
Cations			32.74	meq/L
Anions			32.76	meq/L
Cation/Anion Difference			**0.06%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **GCU #188 Grab Sample**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #6	Date Reported:	06-01-07
Laboratory Number:	41744	Date Sampled:	05-31-07
Chain of Custody:	2004	Date Received:	05-31-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	06-01-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**7.31**	s.u.		
Conductivity @ 25° C	**2,580**	umhos/cm		
Total Dissolved Solids @ 180C	**1,930**	mg/L		
Total Dissolved Solids (Calc)	**1,920**	mg/L		
SAR	**19.2**	ratio		
Total Alkalinity as CaCO3	**381**	mg/L		
Total Hardness as CaCO3	**170**	mg/L		
Bicarbonate as HCO3	**381**	mg/L	6.24	meq/L
Carbonate as CO3	**<0.1**	mg/L	0.00	meq/L
Hydroxide as OH	**<0.1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.34**	mg/L	0.01	meq/L
Nitrite Nitrogen	**0.03**	mg/L	0.00	meq/L
Chloride	**217**	mg/L	6.12	meq/L
Fluoride	**0.92**	mg/L	0.05	meq/L
Phosphate	**4.76**	mg/L	0.15	meq/L
Sulfate	**805**	mg/L	16.76	meq/L
Iron	**0.005**	mg/L	0.00	meq/L
Calcium	**30.5**	mg/L	1.52	meq/L
Magnesium	**23.0**	mg/L	1.89	meq/L
Potassium	**30.9**	mg/L	0.79	meq/L
Sodium	**578**	mg/L	25.14	meq/L
Cations			29.35	meq/L
Anions			29.33	meq/L
Cation/Anion Difference			**0.06%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **GCU #188 Grab Sample**

Analyst

Review

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CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

Client: BLAGG ENGR. / BP AMERICA

Project Name: GCU #188

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

Project #:

Project Manager: NV

Phone #: 632-1199

Sampler: NV

Fax #:

Sample Temperature: 6

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

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	HEAL No.
5/31/07	1105	WATER	MW # 4	2-40ml			070615 1
5/31/07	1120	WATER	MW # 5	2-40ml			2
5/31/07	1020	WATER	MW #6	2-40ml			3

BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	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)
✓																
✓																
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	
5/31/07	1315			6/1/07 920
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

CHAIN OF CUSTODY RECORD

2004

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/BP	GCU #188	
Sampler: NV	Client No. 94034-010	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	MAJOR ANIONS/ CATIONS						Remarks
												PRESERVED COOL
												GRAB SAMPLES
MW #4	5/31/07	1105	41742	WATER	1	✓						
MW #5	5/31/07	1120	41743	WATER	1	✓						
MW #6	5/31/07	1020	41744	WATER	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Vy	5/31/07	1212	Glenn C. Spencer	5/31/07	1212
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	X		
Cool - Ice/Blue Ice	X		

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188
Work Order: 0706015

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML REAGENT BLA		*MBLK*			Batch ID:	**R23908**	Analysis Date:	6/7/2007 8:27:29 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		*MBLK*			Batch ID:	**R23924**	Analysis Date:	6/8/2007 11:53:53 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:	**R23908**	Analysis Date:	6/7/2007 7:20:20 PM	
Benzene	19.60	µg/L	1.0	98.0	85.9	113			
Toluene	19.63	µg/L	1.0	98.1	86.4	113			
Ethylbenzene	19.83	µg/L	1.0	99.1	83.5	118			
Xylenes, Total	59.43	µg/L	2.0	99.0	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R23924**	Analysis Date:	6/8/2007 7:00:05 PM	
Benzene	18.97	µg/L	1.0	94.8	85.9	113			
Toluene	19.23	µg/L	1.0	96.2	86.4	113			
Ethylbenzene	19.10	µg/L	1.0	95.5	83.5	118			
Xylenes, Total	56.39	µg/L	2.0	93.6	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	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 6/1/2007

Work Order Number 0706015 | Received by TLS

Checklist completed by Tanya Shomi (Signature) June 1,07 (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?	1°	*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 & 2015

GCU # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL
ENVIROTECH

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	104.08	86.75	17.33	22.05	-	-	-	-	-
2	99.36	86.70	12.66	17.50	-	-	-	-	-
3	101.59	86.58	15.01	21.90	-	-	-	-	-
4	100.08	86.49	13.59	21.85	1210	6.62	2,200	23.4	4.00
5	100.62	86.42	14.20	21.28	1200	6.74	2,200	23.6	1.75
6	101.01	86.71	14.30	21.90	1110	6.69	1,800	23.6	3.75
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	06/25/07	0550		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 4 & # 6 , poor / fair in MW # 5 , all three murky brown in appearance . Collected samples from MW # 4 , # 5 , & # 6 for chloride analysis only (sent blind samples to Envirotech & split samples to Hall Environmental) . Conducted chloride field testing on those three MW ' s , with all three screened to less than 31 ppm according to conversion table on container .

Top of casing MW # 1 ~ 1.90 ft. , MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.25 ft. , MW # 5 ~ 2.40 ft. , MW # 6 ~ 2.30 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT: Blagg Engineering
Project: GCU #188
Lab Order: 0706379

Lab ID: 0706379-01 **Collection Date:** 6/25/2007 12:10:00 PM
Client Sample ID: MW#4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **CMS**
Chloride	17	0.50		mg/L	5	7/4/2007 2:09:55 PM

Lab ID: 0706379-02 **Collection Date:** 6/25/2007 12:00:00 PM
Client Sample ID: MW#5 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **CMS**
Chloride	17	0.50		mg/L	5	7/4/2007 2:27:19 PM

Lab ID: 0706379-03 **Collection Date:** 6/25/2007 11:10:00 AM
Client Sample ID: MW#6 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **CMS**
Chloride	13	0.50		mg/L	5	7/4/2007 2:44:44 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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW # 1X	Date Reported:	06-26-07
Lab ID#:	42147	Date Sampled:	06-25-07
Sample Matrix:	Water	Date Received:	06-25-07
Preservative:	Cool	Date Analyzed:	06-25-07
Condition:	Cool and Intact	Chain of Custody:	2015

Parameter	Concentration (mg/L)
Total Chloride	**57.0**

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **G - BP #1X Grab Sample**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW # 2X	Date Reported:	06-26-07
Lab ID#:	42148	Date Sampled:	06-25-07
Sample Matrix:	Water	Date Received:	06-25-07
Preservative:	Cool	Date Analyzed:	06-25-07
Condition:	Cool and Intact	Chain of Custody:	2015

Parameter	Concentration (mg/L)
Total Chloride	**58.0**

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **G - BP #1X Grab Sample**

Christine M Walters
Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW # 3X	Date Reported:	06-26-07
Lab ID#:	42149	Date Sampled:	06-25-07
Sample Matrix:	Water	Date Received:	06-25-07
Preservative:	Cool	Date Analyzed:	06-25-07
Condition:	Cool and Intact	Chain of Custody:	2015

Parameter	Concentration (mg/L)
Total Chloride	**50.0**

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **G - BP #1X Grab Sample**

Christine M Walters
Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

Chloride Field Testing Results (FLUID)

Well name: GCU # 188 Date: 6/25/07

Legals: J-30-29-12 Time: 1215

Media Type: PRODUCED WATER

ID: MW # 4

Chloride Test Strip Reading: 0.8

Match reading above to Conversion value and record: < 31 ppm

(If above value is < 1,000 ppm, waste should be acceptable to disposal facility)

Print Name: NELSON VELEZ Job title: STAFF GEOLOGIST

Signature: Nelson Vj Company: BLAGG ENGR.

Chloride Field Testing Results (FLUID)

Well name: GCU #188 Date: 6/25/07

Legals: J-30-29-12 Time: 1205

Media Type: PRODUCED WATER

ID: MW #5

Chloride Test Strip Reading: 0.8

Match reading above to Conversion value and record: < 31 ppm

(If above value is < 1,000 ppm, waste should be acceptable to disposal facility)

Print Name: NELSON VELEZ Job title: STAFF GEOLOGIST

Signature: Nelson Vj Company: BLAGG ENGR.

Chloride Field Testing Results (FLUID)

Well name: Gcu #188 Date: 6/25/07

Legals: J-30-29-12 Time: 1115

Media Type: PRODUCED WATER

ID: MW #6

Chloride Test Strip Reading:	0.8
Match reading above to Conversion value and record:	< 31 ppm

(If above value is < 1,000 ppm, waste should be acceptable to disposal facility)

Print Name: Nelson Velez Job title: STAFF GEOLOGIST

Signature: Nelson Vel Company: BLAGG ENGR.

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other: _____

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

Client: BLAGG ENGR. / BP AMERICA
Address: P. O. BOX 87
BLFD., NM 87413
Phone #: 632-1199
Fax #:

Project Name: Gcu #188
Project #:
Project Manager: NV
Sampler: NV
Sample Temperature: 8

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: Cool	HEAL No.
6/25/07	1210	WATER	MW # 4	1-125 ml			✓	0706379 1
6/25/07	1200	WATER	MW # 5	1-125 ml			✓	2
6/25/07	1110	WATER	MW # 6	1-125 ml			✓	3

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	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)	CHLORIDE				Air Bubbles or Headspace (Y or N)
												✓				
												✓				
												✓				

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
6/25/07	1515	Melissa Vey	13:55 6/26/07
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

CHAIN OF CUSTODY RECORD

2015

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / BP	6 - BP #1X	

Sampler:	Client No.
NV	94034-010

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	CHLORIDE						Remarks
												PRESERVED COOL
												GRAB SAMPLES
MW # 1X	6/25/07	1210	42147	WATER	1	✓						
MW # 2X	6/25/07	1200	42148	WATER	1	✓						
MW #3X	6/25/07	1110	42149	WATER	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6/25/07	1315	[signature]	6/25/07	1315
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188

Work Order: 0706379

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: MB		*MBLK*			Batch ID:	**R24261**	Analysis Date:	7/4/2007 12:42:53 PM	
Chloride	ND	mg/L	0.10						
Sample ID: LCS ST300-07026		*LCS*			Batch ID:	**R24261**	Analysis Date:	7/4/2007 1:00:18 PM	
Chloride	4.882	mg/L	0.10	97.6	90	110			

Qualifiers:

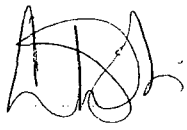
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 6/26/2007

Work Order Number 0706379 | Received by ARS

Checklist completed by  Signature 6/26/07 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?	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 # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 15, 2007

SAMPLER : N J V

Filename : 08-15-07.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	104.08	86.38	17.70	22.05	-	-	-	-	-
2	99.36	86.30	13.06	17.50	-	-	-	-	-
3	101.59	86.14	15.45	21.90	1000	6.77	2,700	21.8	3.25
4	100.08	86.00	14.08	21.85	0950	6.78	2,200	22.9	3.75
5	100.62	85.92	14.70	21.28	1010	6.84	2,400	22.2	1.50
6	101.01	86.26	14.75	21.90	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	08/15/07	0900		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 3 & # 4 , poor / fair in MW # 5 , all three murky brown / black in appearance .
Collected samples from MW # 3 , # 4 , & # 5 for BTEX analyses only .

Top of casing MW # 1 ~ 1.90 ft. , MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.25 ft. , MW # 5 ~ 2.40 ft. , MW # 6 ~ 2.30 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-07*

CLIENT: Blagg Engineering
Project: GCU #188

Lab Order: 0708249

Lab ID: 0708249-01 **Collection Date:** 8/15/2007 10:00:00 AM
Client Sample ID: MW #3 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **SMP**
Benzene	9.9	1.0		µg/L	1	8/24/2007 2:26:15 AM
Toluene	7.1	1.0		µg/L	1	8/24/2007 2:26:15 AM
Ethylbenzene	110	10		µg/L	10	8/24/2007 1:56:13 AM
Xylenes, Total	460	20		µg/L	10	8/24/2007 1:56:13 AM
Surr: 4-Bromofluorobenzene	90.8	70.2-105		%REC	10	8/24/2007 1:56:13 AM

Lab ID: 0708249-02 **Collection Date:** 8/15/2007 9:50:00 AM
Client Sample ID: MW #4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **SMP**
Benzene	ND	5.0		µg/L	5	8/24/2007 4:31:25 AM
Toluene	ND	5.0		µg/L	5	8/24/2007 4:31:25 AM
Ethylbenzene	260	5.0		µg/L	5	8/24/2007 4:31:25 AM
Xylenes, Total	1100	10		µg/L	5	8/24/2007 4:31:25 AM
Surr: 4-Bromofluorobenzene	99.7	70.2-105		%REC	5	8/24/2007 4:31:25 AM

Lab ID: 0708249-03 **Collection Date:** 8/15/2007 10:10:00 AM
Client Sample ID: MW #5 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **SMP**
Benzene	11	5.0		µg/L	5	8/24/2007 2:06:55 PM
Toluene	ND	5.0		µg/L	5	8/24/2007 2:06:55 PM
Ethylbenzene	510	10		µg/L	10	8/24/2007 6:09:07 AM
Xylenes, Total	930	20		µg/L	10	8/24/2007 6:09:07 AM
Surr: 4-Bromofluorobenzene	103	70.2-105		%REC	5	8/24/2007 2:06:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	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		

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

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

Client: BLAKE ENGR./BP AMERICA
Project Name: GCU #188
Address: P.O. BOX 87 BLFD., NM 87413
Project #:
Project Manager: NV
Phone #: 632-1199
Sampler: NV
Fax #:
Sample Temperature: 1°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
8/15/07	1000	WATER	MW #3	2-40ml	✓			0708249 1
8/15/07	0950	WATER	MW #4	2-40ml	✓			2
8/15/07	1010	WATER	MW #5	2-40ml	✓			3

BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	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)
✓																
✓																
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
8/16/07	1545		8/17/07 1416

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188 **Work Order:** 0708249

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R24885**	Analysis Date:	8/23/2007 9:10:07 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: 5ML RB		*MBLK*			Batch ID:	**R24905**	Analysis Date:	8/24/2007 10:01:20 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		*MBLK*			Batch ID:	**R24905**	Analysis Date:	8/24/2007 6:25:38 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:	**R24885**	Analysis Date:	8/23/2007 2:37:33 PM	
Benzene	17.77	µg/L	1.0	88.9	85.9	113			
Toluene	17.37	µg/L	1.0	86.9	86.4	113			
Ethylbenzene	18.05	µg/L	1.0	90.2	83.5	118			
Xylenes, Total	54.72	µg/L	2.0	90.9	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R24905**	Analysis Date:	8/24/2007 11:31:32 AM	
Benzene	17.89	µg/L	1.0	89.4	85.9	113			
Toluene	17.92	µg/L	1.0	89.6	86.4	113			
Ethylbenzene	18.15	µg/L	1.0	90.3	83.5	118			
Xylenes, Total	54.67	µg/L	2.0	90.5	83.4	122			
Sample ID: 100NG BTEX LCS B		*LCS*			Batch ID:	**R24905**	Analysis Date:	8/25/2007 11:02:46 PM	
Benzene	18.86	µg/L	1.0	94.3	85.9	113			
Toluene	19.72	µg/L	1.0	98.6	86.4	113			
Ethylbenzene	20.17	µg/L	1.0	100	83.5	118			
Xylenes, Total	62.26	µg/L	2.0	102	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R24885**	Analysis Date:	8/23/2007 3:07:41 PM	
Benzene	18.32	µg/L	1.0	91.6	85.9	113	3.04	27	
Toluene	18.12	µg/L	1.0	90.6	86.4	113	4.23	19	
Ethylbenzene	18.75	µg/L	1.0	93.7	83.5	118	3.81	10	
Xylenes, Total	56.41	µg/L	2.0	93.7	83.4	122	3.04	13	

Qualifiers:

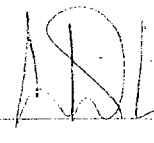
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 8/17/2007

Work Order Number 0708249 | Received by TLS

Checklist completed by  8/17/07
Signature | 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?	1°	*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 # 188 - PROD. TANK PIT
UNIT J, SEC. 30, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : November 15, 2007

SAMPLER : N J V

Filename : 11-15-07.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	104.08	86.70	17.38	22.05	-	-	-	-	-
2	99.36	86.67	12.69	17.50	-	-	-	-	-
3	101.59	86.45	15.14	21.90	0930	6.91	2,500	15.4	3.25
4	100.08	86.26	13.82	21.85	1000	6.80	2,500	15.8	4.00
5	100.62	86.19	14.43	21.28	1030	7.20	2,300	15.4	1.50
6	101.01	86.56	14.45	21.90	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	11/14/07	1000		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 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 ".

Excellent recovery in MW # 3 & # 4 , poor / fair in MW # 5 , all three murky brown / black in appearance .
Collected samples from MW # 3 , # 4 , & # 5 for BTEX analysis only .

Top of casing MW # 1 ~ 1.90 ft. , MW # 2 ~ @ grade , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.25 ft. , MW # 5 ~ 2.40 ft. , MW # 6 ~ 2.30 ft. above grade.

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Nov-07*

CLIENT: Blagg Engineering
Project: GCU #188
Lab Order: 0711288

Lab ID: 0711288-01 **Collection Date:** 11/15/2007 9:30:00 AM
Client Sample ID: MW #3 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	8.0	1.0		µg/L	1	11/21/2007 7:24:47 PM
Toluene	7.0	1.0		µg/L	1	11/21/2007 7:24:47 PM
Ethylbenzene	95	1.0		µg/L	1	11/21/2007 7:24:47 PM
Xylenes, Total	700	20		µg/L	10	11/21/2007 6:54:45 PM
Surr: 4-Bromofluorobenzene	99.6	70.2-105		%REC	10	11/21/2007 6:54:45 PM

Lab ID: 0711288-02 **Collection Date:** 11/15/2007 10:00:00 AM
Client Sample ID: MW #4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	11/21/2007 8:57:38 PM
Toluene	ND	1.0		µg/L	1	11/21/2007 8:57:38 PM
Ethylbenzene	30	1.0		µg/L	1	11/21/2007 8:57:38 PM
Xylenes, Total	160	2.0		µg/L	1	11/21/2007 8:57:38 PM
Surr: 4-Bromofluorobenzene	105	70.2-105	S	%REC	1	11/21/2007 8:57:38 PM

Lab ID: 0711288-03 **Collection Date:** 11/15/2007 10:30:00 AM
Client Sample ID: MW #5 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	5.7	1.0		µg/L	1	11/21/2007 10:30:24 PM
Toluene	ND	1.0		µg/L	1	11/21/2007 10:30:24 PM
Ethylbenzene	510	10		µg/L	10	11/21/2007 10:00:33 PM
Xylenes, Total	680	20		µg/L	10	11/21/2007 10:00:33 PM
Surr: 4-Bromofluorobenzene	102	70.2-105		%REC	10	11/21/2007 10:00:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	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		

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

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

Client: BLAGG ENER. / BP AMERICA
Address: P.O. BOX 87 BLFD., NM 87413
Phone #: 632-1199
Fax #:

Project Name: GCU # 188
Project #:
Project Manager: NV
Sampler: NV
Sample Temperature: 1°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	HEAL No. 0711288	(BTEX + MTBE + TMB's (8021B))	BTEX + MTBE + TPH (Gasoline Only)	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)
11/15/07	0930	WATER	MW # 3	2-40ml	✓		1	✓																
11/15/07	1000	WATER	MW # 4	2-40ml	✓		2	✓																
11/15/07	1030	WATER	MW # 5	2-40ml	✓		3	✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
11/15/07	1415		11/19/07 8:21
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #188 **Work Order:** 0711288

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:

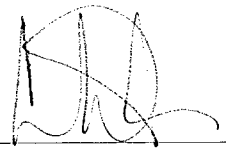
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date Received: 11/19/2007

Work Order Number 0711288 | Received by: ARS

Checklist completed by:  Signature | 11/19/07 Date | Sample ID labels checked by: AS 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 _____