3R - 464

GWMR

02 / 01 / 2011

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

32-464

February 1, 2011

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 Com B # 143E, Unit M, Sec. 25, T29N, R12W, NMPM
San Juan County, New Mexico

NMOCD Administrative/Environmental Order #: None yet assigned

Dear Mr. von Gonten:

BP America Production Company (**BP**) has retained Blagg Engineering, Inc. (**BEI**) to conduct environmental monitoring of groundwater at the GCU Com B # 143E.

Formal correspondence to NMOCD was conducted with letter dated, March 5, 1996 (included within this report). Groundwater monitoring commenced in December 2009. 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. Jeff Peace, Environmental Advisor, BP, Farmington, NM

NJV/njv GCU Com B 143E 02-01-11 CVL.DOC

BP AMERICA PRODUCTION CO.

GROUNDWATER REMEDIATION REPORT

GCU COM B # 143E
(M) SECTION 25, T29N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

DECEMBER 2010

PREPARED BY:
BLAGG ENGINEERING, INC.

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

BP AMERICA PRODUCTION COMPANY
GCU Com B # 143E - Separator Pit
SW¼ SW¼, Sec. 25, T29N, R12W

Pit Closure Date: February 1996

Monitor Well Installation Date: November 3, 2009

Monitor Well Sampling Dates: 12/3/09, 3/1/10, 5/10/10, 7/22/10, 10/21/10

Pit Closure and Background:

Groundwater was encountered at a depth of approximately seventeen (17) feet below surface grade during excavation of impacted soils from the earthen separator pit in February 1996 (documentation included). The excavation perimeter was measured at approximately 32 X 37 X 19 feet depth. Approximately 825 cubic yards of soils were removed and transported to the BP America Production Company (**BP**) Crouch Mesa facility. After the initial sampling and testing of the exposed groundwater within the excavation, pumping via water hauling trucks commenced. The water was then transported and disposed at an approved facility. Afterward, subsequent sampling and testing for benzene, toluene, ethylbenzene, and total xylenes (**BTEX**) per US EPA method 8020 was conducted. The discovery of confirmed groundwater impact during the pit closure activity was reported to the New Mexico Oil Conservation Division's (**NMOCD**) Santa Fe office with letter dated March 5, 1996 (document included). The BTEX results of the groundwater sampling from the excavation are as follows;

Sample ID	Date	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)
PW1 @ GW (17')	02/07/96	**26.1**	**1,070**	199	**2,230**
PW2 @ GW (17')	02/15/96	**22.1**	513	142	**961**
PW3 @ GW (17')	02/23/96	5.9	176	60.1	561
NMWQCC regulatory standards		**10**	**750**	**750**	**620**

Note: gw = groundwater, NMWQCC = New Mexico Water Quality Control Commission, ppb = parts per billion, ND = Not detectable at reported limits (less than regulatory standards by at least a magnitude of 10).

Groundwater Investigation and Soil Lithology:

Groundwater monitor wells were installed in November 2009 to test groundwater quality (see Figure 1). Boring logs for all three (3) monitor wells along with well completion information are contained within this report. There are no known receptors impacted by the previous discovery of impacted soil and/or groundwater.

Soil lithology at the site consists of primarily coarse grained sand with varying size gravel at greater depths (beyond 17 feet), non cohesive, and firm. A light, medium gray sandstone phasing into sand and gravel with no apparent hydrocarbon odor was observed within the drill cuttings at an estimated 15-17 feet below grade within MW #3 (down gradient boring).

Groundwater Monitor Well Sampling Procedures:

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

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

Water Quality and Gradient Information:

BP initiated quarterly sampling and testing pursuant to BP's NMOCD approved Groundwater Management Plan (**GMP**). A historical summary of laboratory analytical BTEX results are included within the table on the following page. Field data sheets, laboratory reports, and laboratory quality assurance/quality control information are also included within this report.

Groundwater contour maps (Figure 2 through Figure 6) reveal the relative elevations from the site wells have consistently shown an apparent southwest flow direction.

Summary and/or Recommendations:

Since November 2009, BTEX within all site monitor wells have tested at non-detectable levels or below NMWQCC standards except MW #3 [during two (2) separate sampling events only]. In November 2009, MW #3 total xylenes = 830 ppb (NMWQCC standards = 620 ppb). In October 2010, MW #3 benzene = 38 ppb (NMWQCC standards = 10 ppb). Due to findings in the last sampling event, it is necessary to continue monitoring MW #3 on a quarterly basis. Sampling and testing of monitor well MW #3 will adhere to BP's GMP. No additional remedial actions are proposed at this time. If warranted, alternative remedial actions will be evaluated.

80330

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: GCU COM B 143E
Well Name

Location: Unit or Qtr/Qtr Sec M Sec 25 T29N R12 County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM ___, State ___, Fee ___, Other COM. AGMT.

Pit Location: (Attach diagram)
Pit dimensions: length 32', width 37', depth 19'
Reference: wellhead X, other ___
Footage from reference: 136'
Direction from reference: 85 Degrees X East North X of ___ West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	20
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	10
	RANKING SCORE (TOTAL POINTS):	30

BO330 / SEP. PIT

Date Remediation Started: _____ **Date Completed:** _____

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 875

Landfarmed ___ Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite ___ Offsite _____

General Description Of Remedial Action: _____

Excavation – GROUNDWATER PUMPED & DISPOSED BY TRIPLE S (AFTER FIRST SAMPLING EVENT)

Ground Water Encountered: No ___ Yes X **Depth** 17'

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents MULTIPLE SAMPLES

Sample depth _____

Sample date _____ Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes X No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE

SIGNATURE B J Shaw PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

CLIENT: AMOCO

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

LOCATION NO: B0330
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: Gcu Com B WELL #: 143E PIT: SEP
QUAD/UNIT: M SEC: 25 TWP: 29N RNG: 12W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: SW/4 SW/4 CONTRACTOR: P. VELASQUEZ

DATE STARTED: 2-7-96
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 32 FT. x 37 FT. x 19 FT. DEEP. CUBIC YARDAGE: 825
DISPOSAL FACILITY: _____ REMEDIATION METHOD: _____
LAND USE: RESIDENTIAL LEASE: _____ FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 136 FT. N85E FROM WELLHEAD.
DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: <1000'
NMOCD RANKING SCORE: 30 NMOCD TPH CLOSURE STD: 100 PPM

CHECK ONE:
✓ PIT ABANDONED
___ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

NO SHEEN OBSERVED ON GROUNDWATER SURFACE, SLIGHT HC ODOR DETECTED IN GROUNDWATER COLLECTION CONTAINER (FIRST SAMPLING EVENT). SIDEWALLS INACCESSIBLE FOR SOIL SAMPLING, HOWEVER, APPEAR TO BE FREE OF ANY OBSERVABLE STAINING EXCEPT FOR 6" @ AND ABOVE GROUNDWATER SURFACE ON EAST SIDE OF THE EXCAVATION. FIRST BTEX AND ANION/CATION COLLECTED PRIOR TO GROUNDWATER BEING PUMPED. EXCAVATION AREA LIMITED DUE TO SURFACE EQUIPMENT & ROADWAY. NEARBY RESIDENCE'S ARE BELIEVED TO HAVE COMMUNITY WATER SUPPLY FROM SOURCE NOT WITHIN THE IMMEDIATE VICINITY OF WELL SITE. RECOMMEND INSTALLING DRIVE PT. @ SUSPECT DOWN GRADIENT DIRECTION TO DETERMINE IF LATERAL MOVEMENT IN GROUNDWATER HAS OCCURRED.

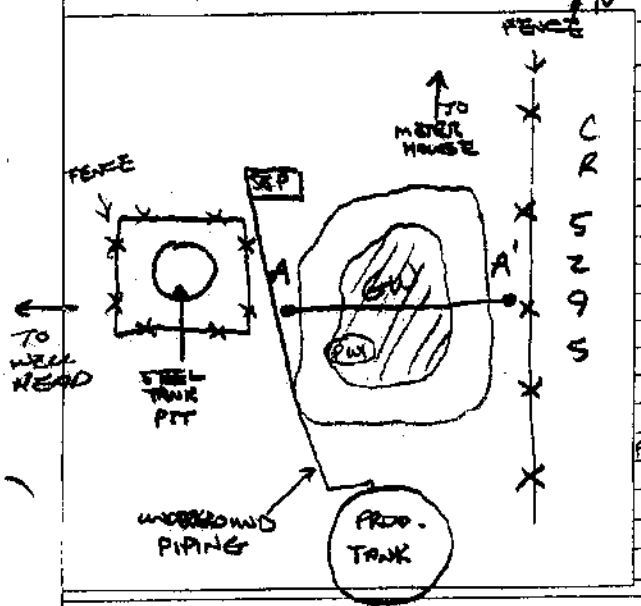
COND. PW1 = 1,200 mS

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

PIT PERIMETER



OVM RESULTS

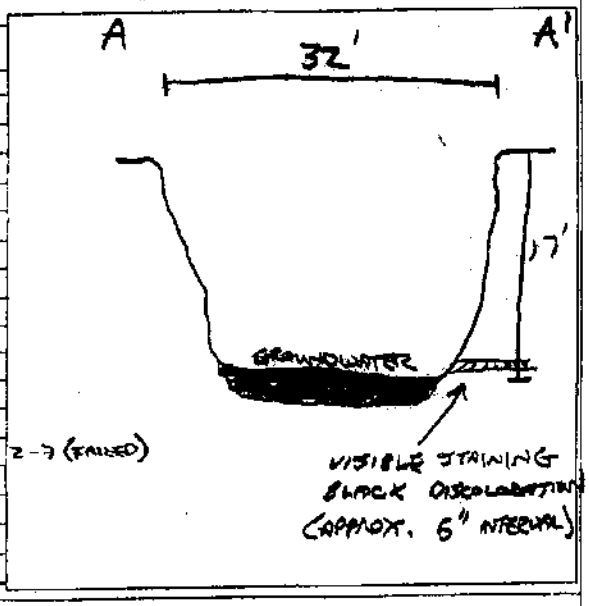
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
PW1 EGW(1')	BTEX	1030
	ANION/CATION	

2-7 (FAXED)

PIT PROFILE



TRAVEL NOTES: CALLOUT: 2/7/96 MORN. ONSITE: 2/7/96 MORN.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034
Sample ID:	PW 1 @ GW (17')	Date Reported:	02-07-96
Chain of Custody:	4696	Date Sampled:	02-07-96
Laboratory Number:	9986	Date Received:	02-07-96
Sample Matrix:	Water	Date Analyzed:	02-07-96
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**26.1**	**5**	**1.7**
Toluene	**1,070**	**5**	**1.8**
Ethylbenzene	**199**	**5**	**1.4**
p,m-Xylene	**1,760**	**5**	**2.7**
o-Xylene	**470**	**5**	**1.7**
Total BTEX	**3,520**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**103 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **GCU COM B 143E Separator Pit.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034
Sample ID:	PW 2 @ GW (17')	Date Reported:	02-15-96
Chain of Custody:	4453	Date Sampled:	02-15-96
Laboratory Number:	A012	Date Received:	02-15-96
Sample Matrix:	Water	Date Analyzed:	02-15-96
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**22.1**	**1**	**0.3**
Toluene	**513**	**5**	**1.8**
Ethylbenzene	**142**	**1**	**0.3**
p,m-Xylene	**604**	**5**	**2.7**
o-Xylene	**357**	**5**	**1.7**
Total BTEX	**1,640**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**104 %**
	Bromofluorobenzene	**104 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **GCU COM B 143E Sep. Plt.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034
Sample ID:	PW 3 @ GW (17')	Date Reported:	02-23-96
Chain of Custody:	4708	Date Sampled:	02-23-96
Laboratory Number:	A022	Date Received:	02-23-96
Sample Matrix:	Water	Date Analyzed:	02-23-96
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**5.9**	**1**	**0.3**
Toluene	**176**	**1**	**0.4**
Ethylbenzene	**60.1**	**1**	**0.3**
p,m-Xylene	**424**	**1**	**0.5**
o-Xylene	**137**	**1**	**0.3**
Total BTEX	**802**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**102 %**
	Bromofluorobenzene	**101 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **GCU COM B 143E Sep. Pit.**

Analyst

Review

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ANALYTICA
ENVIRONMENTAL LABORATORY

General Water Quality
Blagg Engineering, Inc.

Project ID:	GCU Com B 143E Separator Pit	Date Reported:	02/09/96
Sample ID:	PW1 at GW (17')	Date Sampled:	02/07/96
Laboratory ID:	2596	Time Sampled:	10:30
Sample Matrix:	Water	Date Received:	02/07/96

General	Lab pH	7.2	s.u.
	Lab Conductivity @ 25° C	1,200	µmhos/cm
	Total Dissolved Solids @ 180°C	1,080	mg/L
	Total Dissolved Solids (Calc)	923	mg/L
Anions	Total Alkalinity as $CaCO_3$	428	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	428	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	5.00	mg/L
	Sulfate	365	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	697	mg/L
	Calcium	225	mg/L
	Magnesium	33.1	mg/L
	Potassium	< 5.0	mg/L
	Sodium	36	mg/L

Data Validation			Acceptance Level
	Cation/Anion Difference	2.22	+/- 5 %
	TDS (180):TDS (calculated)	1.2	1.0 - 1.2

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 Wastewater, 18th ed., 1992.

Review

ANALYTICA
ENVIRONMENTAL LABORATORY
807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

CHAIN OF CUSTODY

PROJECT MANAGER:
Analytica Lab I.D.:

Company: BLAGG
Address:

Phone:
Fax:

Bill To: SAME AS ABOVE
Company:
Address:

Sample ID	Date	Time	Matrix	Lab ID
PW1 C Gw(1)	2/7/95	1030	WATER	

ORGANIC ANALYSES														
Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs BTEX/MTBE (602 / 8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1 / 503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (specify):		

WATER ANALYSES								
Cation / Anion	Specific Cations (specify):	Specific Anions (specify):	BOD / Fecal / Total Coliform	Solids: TDS / TSS / SS	Nutrients: NH_4^+ / NO_2^- / NO_3^- / TKN	Oil and Grease	Other (specify):	
✓								

METALS			
Priority Pollutants	RCRA Metals (Total)	RCRA Metals TCLP (1311)	Other (specify):

COMMENTS: PRESERV. - COOL

SEP. PIT

Project Information	Sample Receipt
Proj. #: 6cu com B 1436	No. Containers:
Proj. Name: SEP PIT	Custody Seals: Y / N / NA
P. O. No:	Received Intact:
Shipped Via:	Received Cold:

Required Turnaround Time (Prior Authorization Required for Rush)

Sampled By:	Relinquished By:	Relinquished By:
Signature: Nelson Velez Date: 2/7/96	Signature: Nelson Velez Date: 2/7/96	Signature: Date:
Company: BLAGG Time: 1030	Company: BLAGG Time: 1130	Company: Time:
Received By:	**Received By:**	**Received By:**
Signature: Date:	Signature: Date:	Signature: Date:
Company: Time:	Company: Time:	Company: HALLIBURTON Time: 11:45

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Analytica
Pink: Client

4696

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	320-3489 ANALYSIS/PARAMETERS
BLAGG / AMOCO	SEP. PIT GCU com B 143E	
Sampler: (Signature)	Chain of Custody Tape No.	
Nelson Velez	04034	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8020)						Remarks
PW1 @ GW (17')	2/7/96	1030	9986	WATER	2	✓						PRESERV. - $HgCl_2$ & COOL

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
Nelson Velez	2/7/96	1108	Aleen L. O'Brien	2-7-96	1108
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

))) 4453

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / AMOCO	SEP PIT GCU COM B 143E	
Sampler: (Signature)	Chain of Custody Tape No.	
	04034	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8020)						Remarks
PW2 EGW(11')	2/15/96	1045	A012	WATER	2	✓						PRESERV. $HgCl_2$ + COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	2/15/96	1103	L. Ojeme	2/15/96	1103
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

San Juan Form 579-81

4708

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG/ AMOCO	SEP. PIT GCU COM B 143E -	
Sampler: (Signature) Melvon Vely	Chain of Custody Tape No. 04034	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8020)						Remarks
PW3@GW(17')	2/23/96	1045	A022	WATER	2	✓						PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Melvon Vely	2/23/96	1052	Shirley L. Spencer	2/23/96	1052
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

March 5, 1996

Mr. Roger Anderson
Chief of Environmental Bureau
State of New Mexico Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RE: **Groundwater Impact**
Amoco Production Company: **GCU Com B 143E Well site**
Legal Description: Unit M, Sec. 25, T29N, R12W
San Juan County, New Mexico

Dear Mr. Anderson:

Initial groundwater sample analytical results at the above referenced well site during pit closure activity indicated contamination to be above the State of New Mexico Water Quality Control Commission's regulatory standards for Benzene, Toluene, and total Xylenes. Sampling on the Separator pit was conducted February 7, 1996. Listed below are summary analytical results for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX):

Parameter	Separator Pit (parts per billion)
Benzene	**26.1**
Toluene	**1070**
Ethylbenzene	199
Total Xylenes	**2230**

If you have any questions concerning this information, please do not hesitate to contact us at (505) 632-1199. Thank you for your cooperation.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

cc: Denny Foust, Deputy Oil & Gas Inspector, NMOCD, Aztec, NM
Buddy Shaw, Environmental Coordinator, Amoco Production Company, Farmington, NM

NV/nv

GCU143E.LTR

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

GCU Com B # 143E - Separator pit
UNIT M, SEC. 25, T29N, R12W

REVISED DATE: October 29, 2010

FILENAME: (143E4Q10.WK4) NJV

SAMPLE DATE	WELL NAME or No.	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb) Benzene	Toluene	Ethyl Benzene	Total Xylenes
03-Dec-09	MW #1	15.90	25.00		1,100	7.33		ND	ND	ND	ND
03-Dec-09	MW #2	15.69	25.65		1,000	7.29		ND	ND	ND	ND
01-Mar-10		17.23			1,000	7.32		ND	ND	ND	ND
10-May-10		16.54			1,000	7.32		ND	ND	ND	ND
21-Oct-10		14.24			1,200	7.18		ND	ND	ND	ND
03-Dec-09	MW #3	16.18	25.80		800	7.36		5.8	ND	130	**830**
01-Mar-10		17.71			900	7.22		ND	ND	120	**580**
10-May-10		16.99			1,000	7.20		ND	ND	9.2	**42**
22-Jul-10		14.88			1,000	7.17		ND	ND	25	**88**
21-Oct-10		14.74			1,100	7.11		**38**	ND	28	**180**
					NMWQCC GROUNDWATER STANDARDS			**10**	**750**	**750**	**620**

NOTES :

1) **RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .**
2) **RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED .**
3) **ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .**
4) **NMWQCC INDICATES NEW MEXICO WATER QUALITY CONTROL COMMISSION.**

GENERAL WATER QUALITY

BP AMERICA PRODUCTION COMPANY

GCU Com B # 143E

Sample Date : December 3 , 2009

PARAMETERS	MW # 1 12/03/09	MW # 2 12/03/09	MW # 3 12/03/09	NMWQCC STANDARDS	Units
pH	7.33	7.29	7.36	**6 - 9**	s. u.
TOTAL DISSOLVED SOLIDS	960	841	598	**1,000**	mg / L
NITROGEN, NITRITE	ND	ND	ND	**10.0**	mg / L
NITROGEN , NITRATE	ND	0.54	0.12	**10.0**	mg / L
CHLORIDE	37	5.1	6.1	**250**	mg / L
FLUORIDE	0.91	0.90	0.91	**1.6**	mg / L
SULFATE	350	310	71	**600**	mg / L
IRON	ND	ND	2.3	**1.0**	mg / L

Notes :

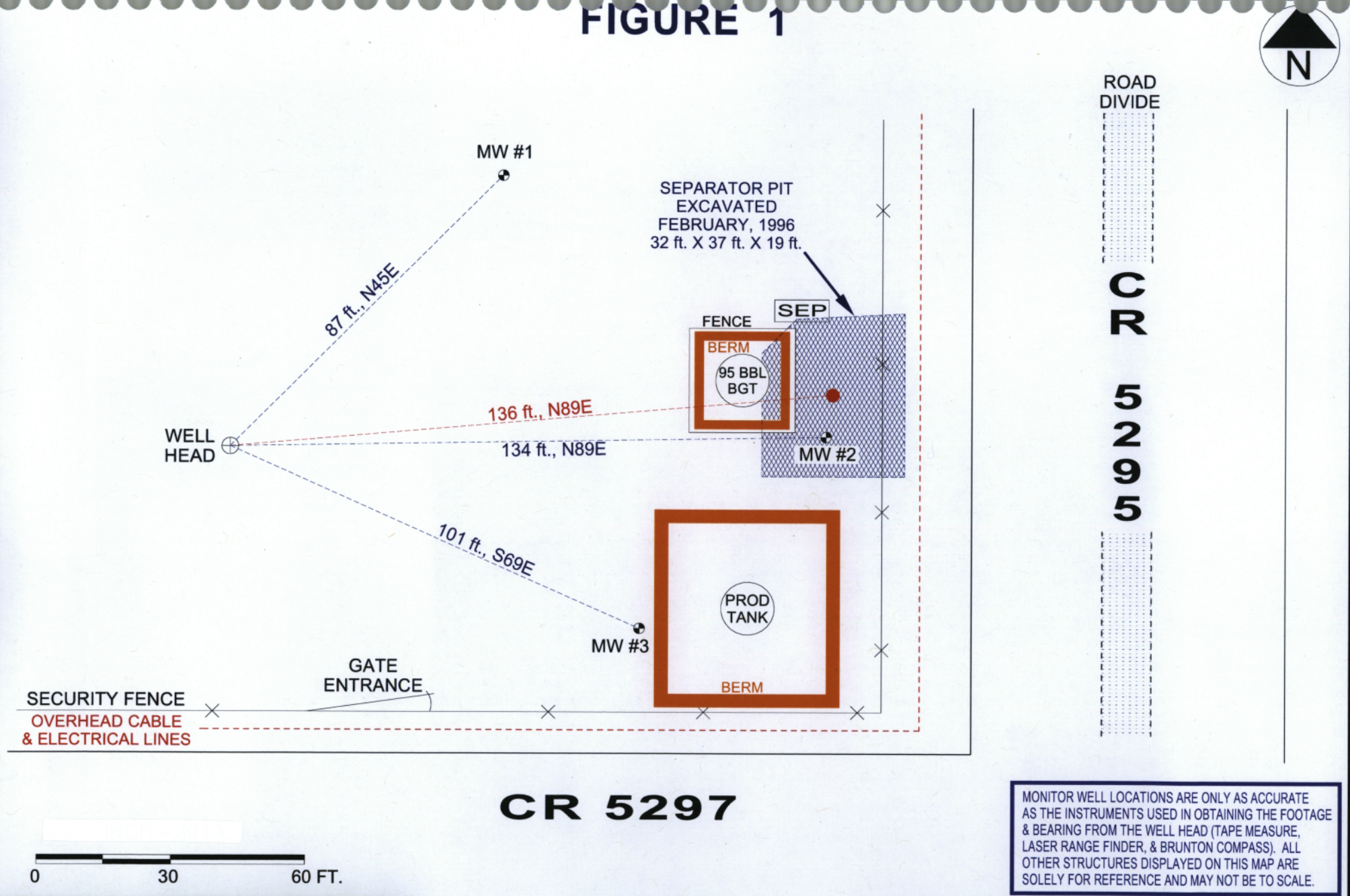
1) NMWQCC - New Mexico Water Quality Control Commission .

2) s. u. - stanadard unit .

3) mg / L - milligrams per liter or otherwise known as parts per million (ppm) .

4) New Mexico Oil Conservation Division (NMOCD) recognizes the NMWQCC or background levels (statistical equivalence) as the standards for each site specific scenario .

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 COM B # 143E
SW/4 SW/4 SEC. 25, 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

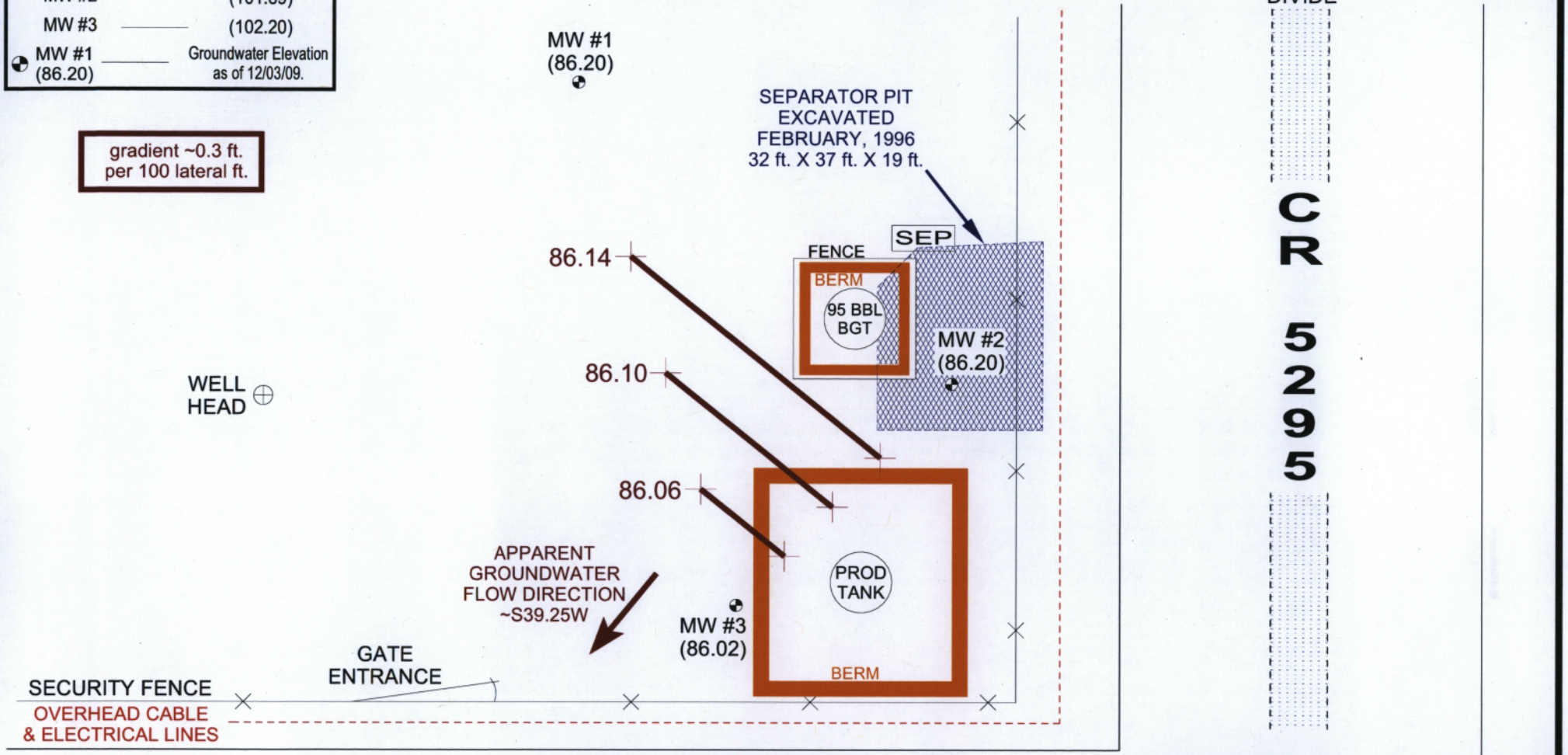
PROJECT: MW INSTALLATIONS
DRAWN BY: NJV
FILENAME: GCU COM B 143E-SM.SKF
DRAFTED: 11-06-09 NJV

SITE MAP
11/09

FIGURE 2
(4th 1/4, 2009)

	Top of Well Elevation
MW #1	(102.10)
MW #2	(101.89)
MW #3	(102.20)
MW #1 (86.20)	Groundwater Elevation as of 12/03/09.

gradient ~0.3 ft. per 100 lateral ft.



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BP AMERICA PRODUCTION CO.
GCU COM B # 143E
SW/4 SW/4 SEC. 25, T29N, R12W
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P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

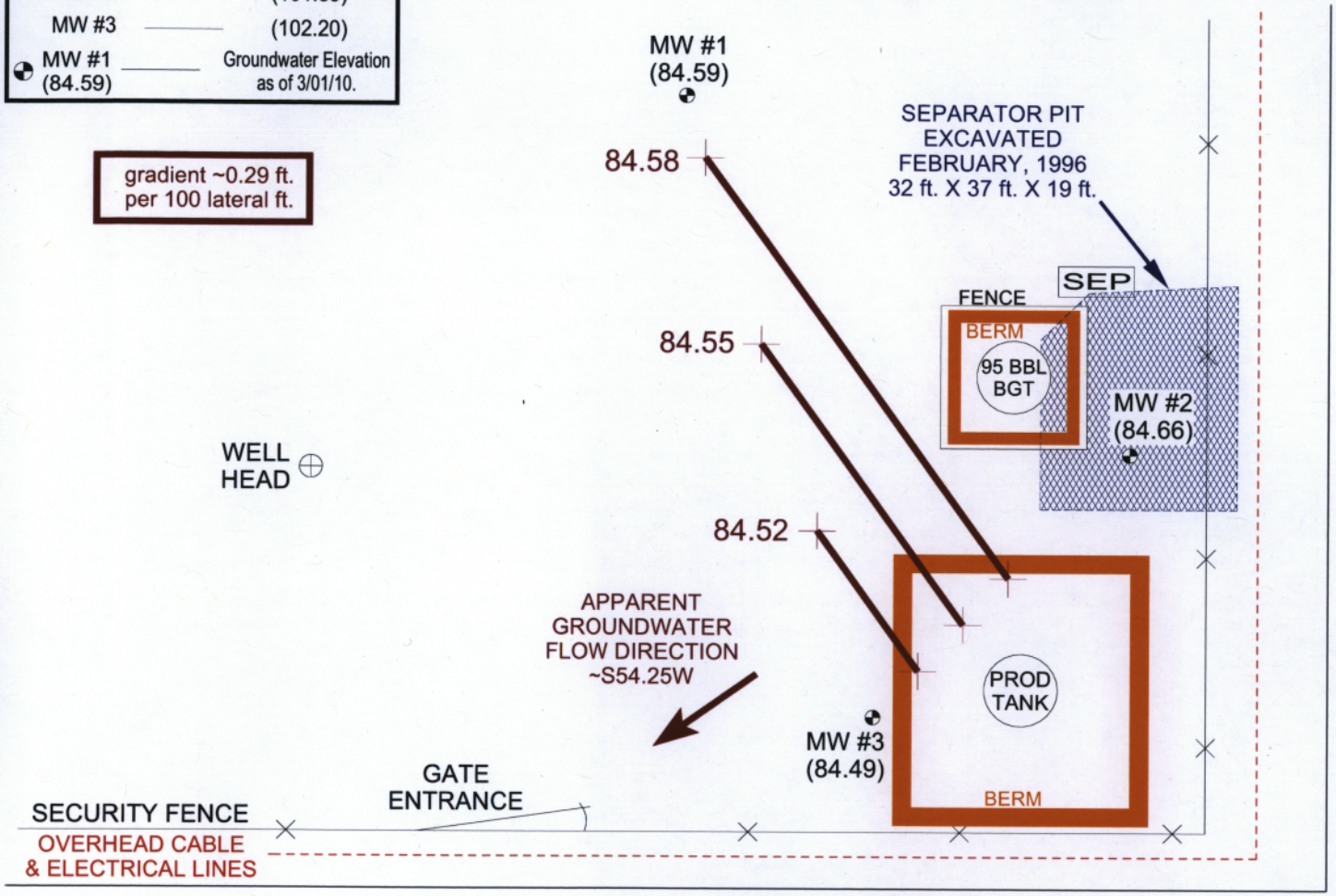
PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 12-03-09-GW.SKF
REVISED: 12-03-09 NJV

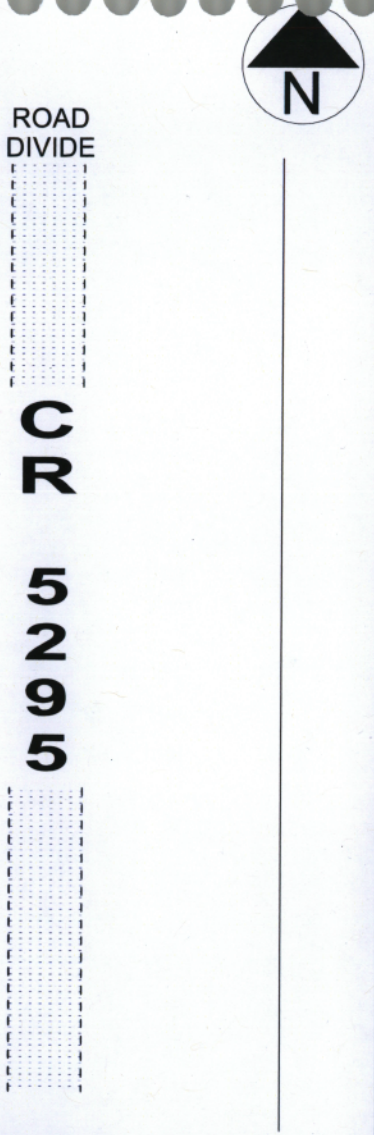
GROUNDWATER CONTOUR MAP
12/09

FIGURE 3
(1st 1/4, 2010)

	Top of Well Elevation
MW #1	(102.10)
MW #2	(101.89)
MW #3	(102.20)
MW #1 (84.59)	Groundwater Elevation as of 3/01/10.

gradient ~0.29 ft. per 100 lateral ft.





CR 5297

0 30 60 FT.

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 COM B # 143E
SW/4 SW/4 SEC. 25, 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

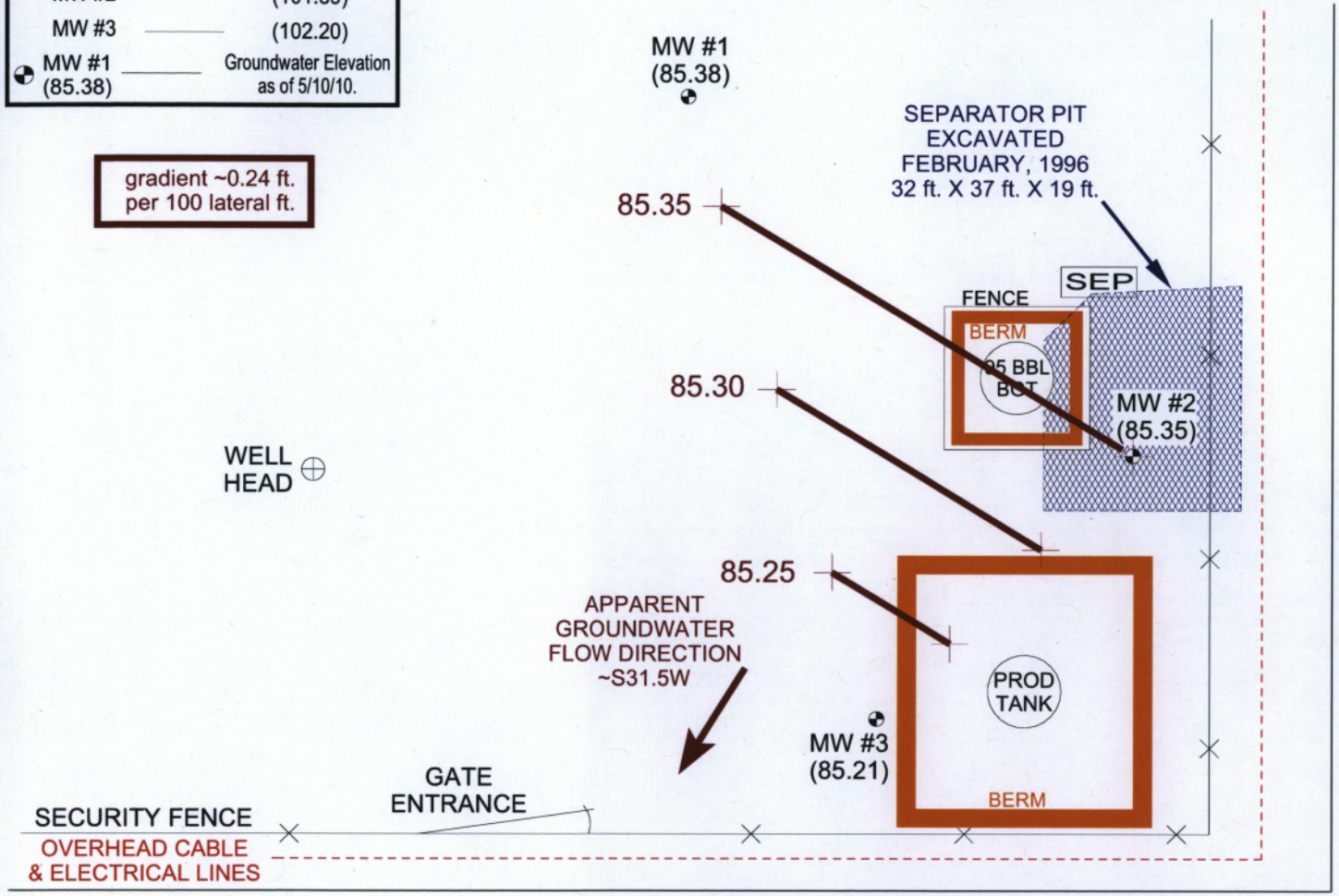
PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 03-01-10-GW.SKF
REVISED: 03-01-10 NJV

GROUNDWATER CONTOUR MAP
03/10

FIGURE 4
(2nd 1/4, 2010)

	Top of Well Elevation
MW #1	(102.10)
MW #2	(101.89)
MW #3	(102.20)
MW #1 (85.38)	Groundwater Elevation as of 5/10/10.

gradient ~0.24 ft. per 100 lateral ft.



CR 5297

0 30 60 FT.

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 COM B # 143E
SW/4 SW/4 SEC. 25, 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

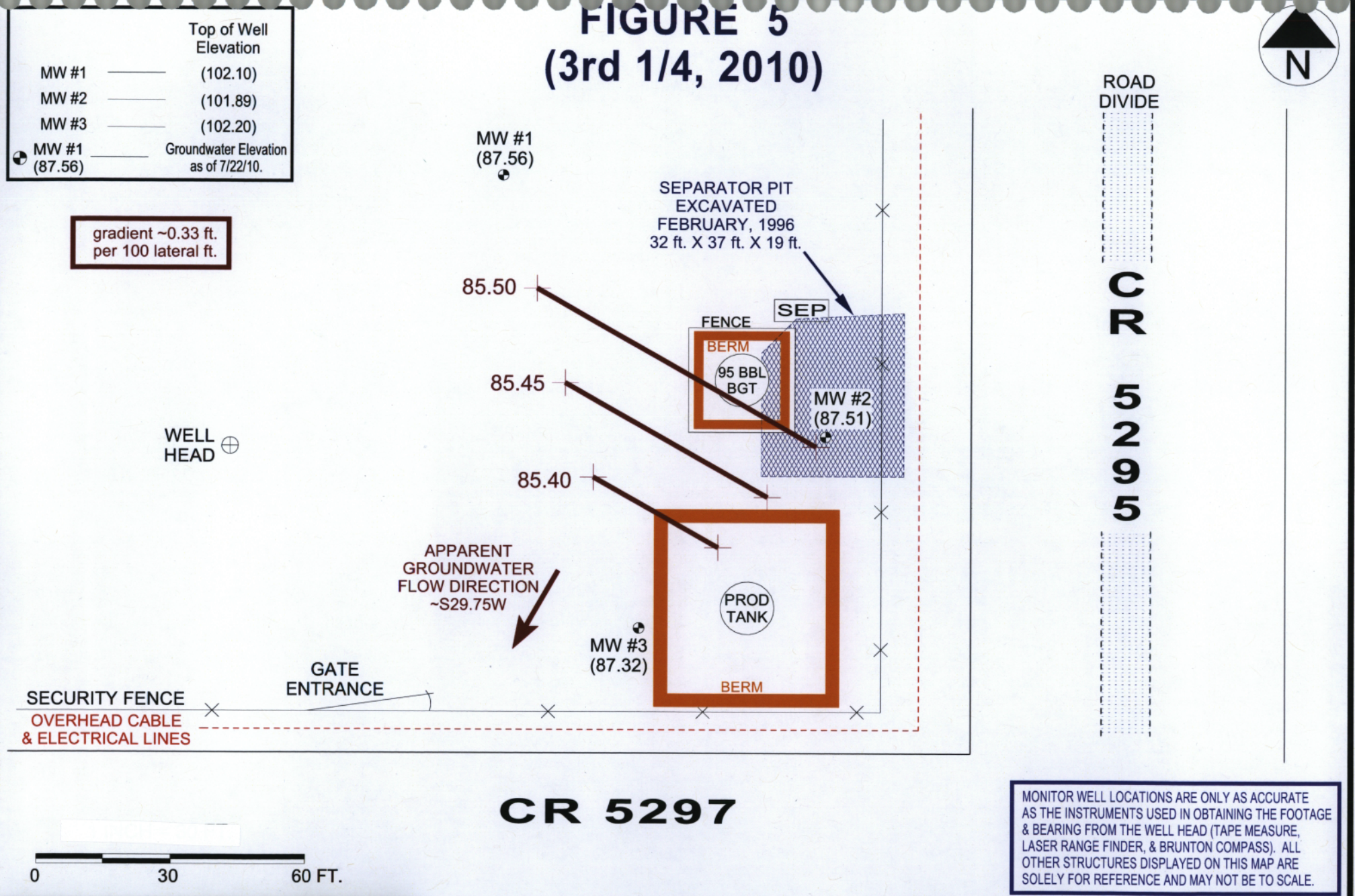
PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 05-10-10-GW.SKF
REVISED: 05-10-10 NJV

GROUNDWATER CONTOUR MAP
05/10

FIGURE 5
(3rd 1/4, 2010)

	Top of Well Elevation
MW #1	(102.10)
MW #2	(101.89)
MW #3	(102.20)
MW #1 (87.56)	Groundwater Elevation as of 7/22/10.

gradient ~0.33 ft. per 100 lateral ft.



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BP AMERICA PRODUCTION CO.
GCU COM B # 143E
SW/4 SW/4 SEC. 25, 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

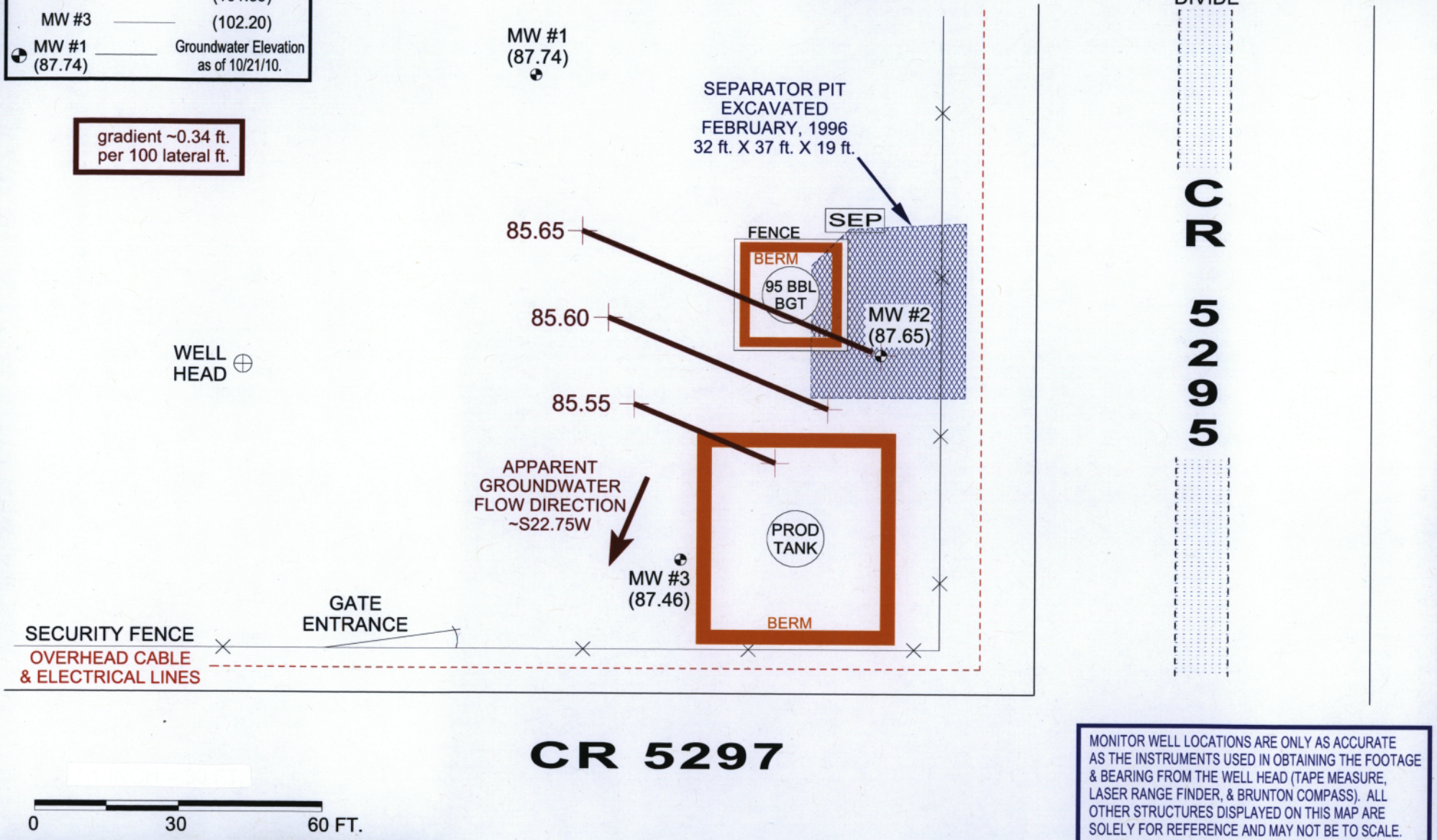
PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 07-22-10-GW.SKF
REVISED: 07-22-10 NJV

GROUNDWATER CONTOUR MAP
07/10

FIGURE 6
(4TH 1/4, 2010)

	Top of Well Elevation
MW #1	(102.10)
MW #2	(101.89)
MW #3	(102.20)
MW #1 (87.74)	Groundwater Elevation as of 10/21/10.

gradient ~0.34 ft. per 100 lateral ft.



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 COM B # 143E
SW/4 SW/4 SEC. 25, 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: 10-21-10-GW.SKF
REVISED: 10-23-10 NJV

GROUNDWATER CONTOUR MAP
10/10

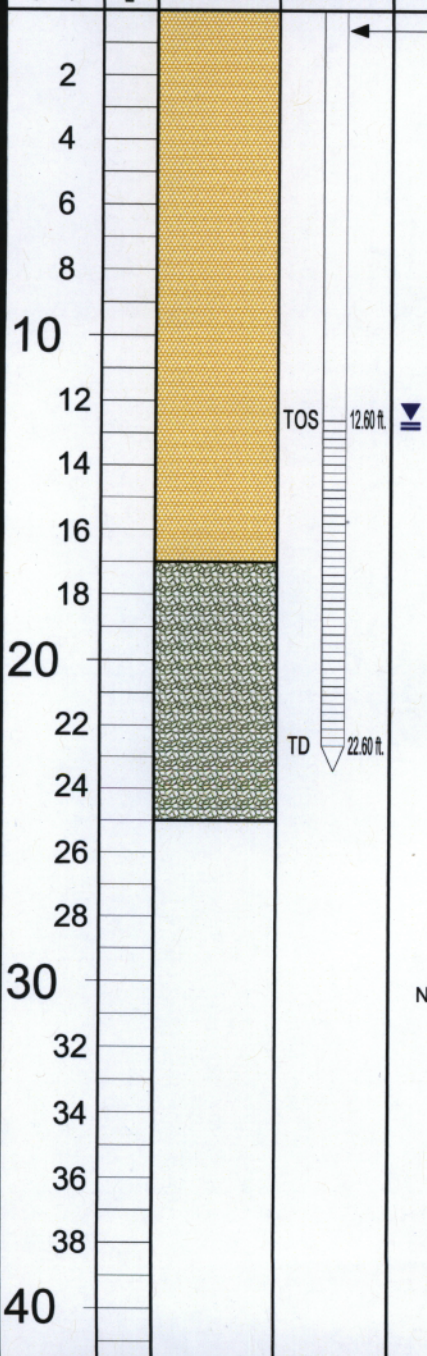
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #1

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU COM B # 143E UNIT M, SEC. 25, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - TUBEX SYSTEM
BORING LOCATION:	87 FEET, N45E FROM WELL HEAD.

BORING #.....	BH - 2
MW #.....	1
PAGE #.....	1
DATE STARTED	11/03/09
DATE FINISHED	11/03/09
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.40 FEET ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 17.0 FT. BELOW GRADE).

12.55 ft. BELOW GRADE ; MEASURED 11/06/09.

PALE OLIVE TO OLIVE GRAY SAND & GRAVEL, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM TO DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 25.0 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 2.40 ft. above grade to 12.60 ft. below grade, 0.010 slotted screen between 12.60 to 22.60 ft. below grade, sand packed annular to 10.0 ft. below grade, bentonite grout between 8.0 to 10.0 ft. below grade, clean fill dirt between 1.0 to 10.0 ft. below grade. Cemented well protector encompassing above grade casing and secured with padlock.

DRAWING: GCU COM B 143E MW1-BH2. SKF | DATE: 11/06/09 | DWN BY: NJV

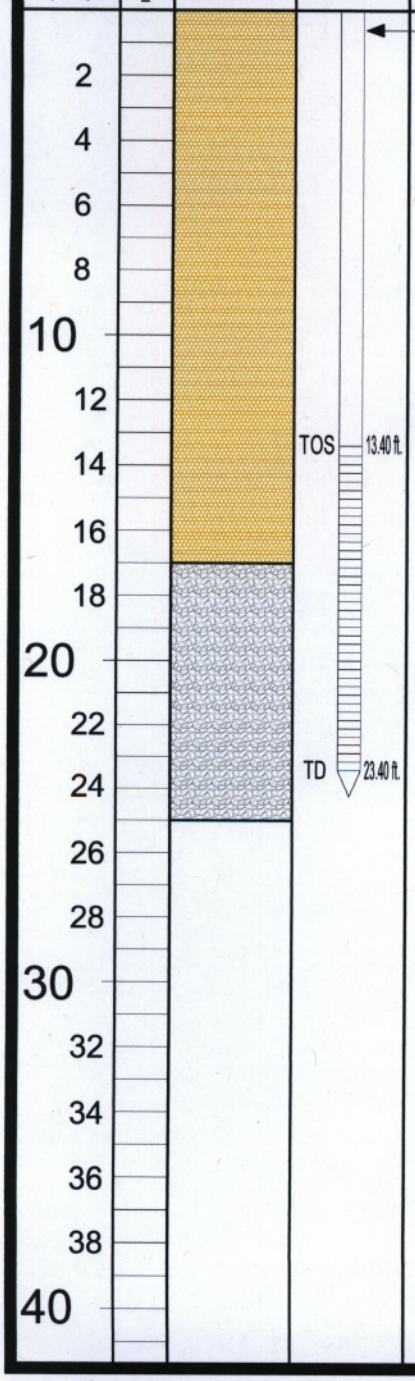
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #2

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU COM B # 143E UNIT M, SEC. 25, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - TUBEX SYSTEM
BORING LOCATION:	134 FEET, N89E FROM WELL HEAD.

BORING #.....	BH - 1
MW #.....	2
PAGE #.....	2
DATE STARTED	11/02/09
DATE FINISHED	11/03/09
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.25 FEET ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 17.0 FT. BELOW GRADE).

▼ **12.56 ft. BELOW GRADE ; MEASURED 11/06/09.**

LIGHT GRAY TO LIGHT OLIVE GRAY SAND & GRAVEL, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM TO DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 25.0 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 13.40 ft. below grade, 0.010 slotted screen between 13.40 to 23.40 ft. below grade, sand packed annular to 11.0 ft. below grade, bentonite grout between 9.0 to 11.0 ft. below grade, clean fill dirt between 1.0 to 9.0 ft. below grade. Cemented well protector encompassing above grade casing and secured with padlock.

DRAWING: GCU COM B 143E MW2-BH1. SKF | DATE: 11/07/09 | DWN BY: NJV

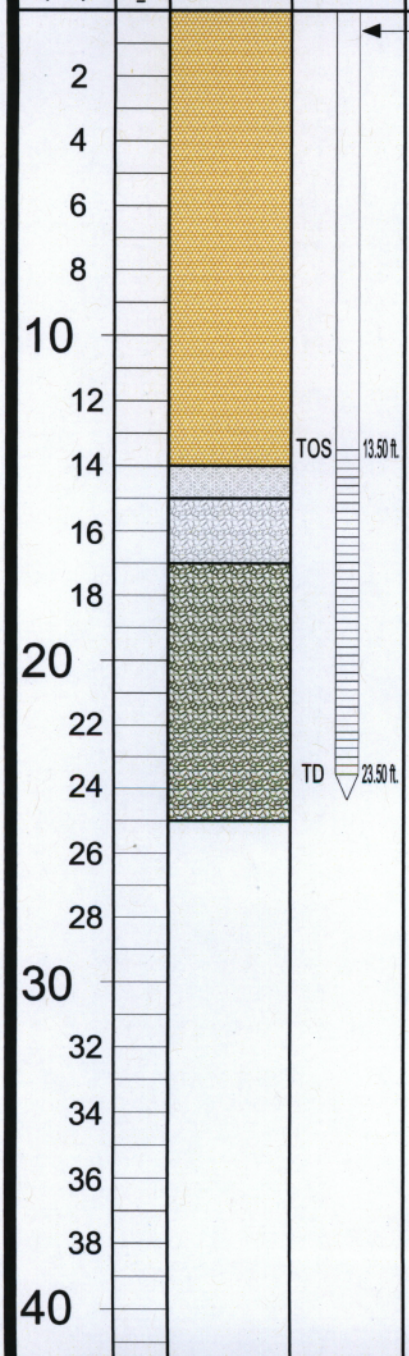
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #3

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU COM B # 143E UNIT M, SEC. 25, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - TUBEX SYSTEM
BORING LOCATION:	101 FEET, S66E FROM WELL HEAD.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	11/03/09
DATE FINISHED	11/03/09
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.30 FEET ABOVE GRADE.

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 14.0 FT. BELOW GRADE).

12.99 ft. BELOW GRADE ; MEASURED 11/06/09.

LIGHT MEDIUM GRAY SANDSTONE, COHESIVE, DRY, DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (14.0 - 15.0 FT. BELOW GRADE).

LIGHT MEDIUM GRAY SANDSTONE / GRAVEL MIX (CONGLOMERATE), COHESIVE, DRY, DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (15.0 - 17.0 FT. BELOW GRADE).

PALE OLIVE TO OLIVE GRAY SAND & GRAVEL, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM TO DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 25.0 FT. BELOW GRADE).

NOTES:
- SAND.
- SANDSTONE.
- 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 13.50 ft. below grade, 0.010 slotted screen between 13.50 to 23.50 ft. below grade, sand packed annular to 11.0 ft. below grade, bentonite grout between 9.0 to 11.0 ft. below grade, clean fill dirt between 1.0 to 9.0 ft. below grade. Cemented well protector encompassing above grade casing and secured with padlock.

DRAWING: GCU COM B 143E MW3-BH3. SKF | DATE: 11/07/09 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GCU COM B # 143E - SEPARATOR PIT
UNIT M, SEC. 25, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : December 3, 2009

DEVELOPER / SAMPLER : N J V

Filename : 11-03-09.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.10	86.20	15.90	25.00	0955	7.33	1,100	12.5	4.50
2	101.89	86.20	15.69	25.65	1035	7.29	1,000	11.6	5.00
3	102.20	86.02	16.18	25.80	1020	7.36	800	12.0	4.75
					INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800		
					DATE & TIME =	12/03/09	0950		

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 and light brown tint appearance in all monitor wells . No visable sheen observed in any of the monitor wells . Collected samples from all monitor wells for BTEX , TDS , chloride , fluoride , nitrate , sulfate , & iron .

Monitor well top elevations surveyed on 11 / 06 / 09 .
Top of casing MW # 1 ~ 2.40 ft. , MW # 2 ~ 2.25 ft. , MW # 3 ~ 2.30 ft. above grade .

on-site	8:41	temp	25
off-site	10:52	temp	30
sky cond.	sunny		
wind speed	0 - 10	direct.	W

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Dec-09*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #1
Lab Order:	0912076	**Collection Date:**	12/3/2009 9:55:00 AM
Project:	GCU COM B #143E	**Date Received:**	12/4/2009
Lab ID:	0912076-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	12/9/2009 2:21:10 PM
Toluene	ND	1.0		µg/L	1	12/9/2009 2:21:10 PM
Ethylbenzene	ND	1.0		µg/L	1	12/9/2009 2:21:10 PM
Xylenes, Total	ND	2.0		µg/L	1	12/9/2009 2:21:10 PM
Surr: 4-Bromofluorobenzene	91.6	65.8-130		%REC	1	12/9/2009 2:21:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	0.91	0.10		mg/L	1	12/4/2009 5:33:09 PM
Chloride	37	2.0		mg/L	20	12/4/2009 5:50:34 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	12/4/2009 5:33:09 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	12/4/2009 5:50:34 PM
Sulfate	350	10		mg/L	20	12/4/2009 5:50:34 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **RAGS**
Iron	ND	0.020		mg/L	1	12/10/2009 5:43:48 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	960	20.0		mg/L	1	9/11/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Dec-09*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #2
Lab Order:	0912076	**Collection Date:**	12/3/2009 10:35:00 AM
Project:	GCU COM B #143E	**Date Received:**	12/4/2009
Lab ID:	0912076-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	12/9/2009 2:51:29 PM
Toluene	ND	1.0		µg/L	1	12/9/2009 2:51:29 PM
Ethylbenzene	ND	1.0		µg/L	1	12/9/2009 2:51:29 PM
Xylenes, Total	ND	2.0		µg/L	1	12/9/2009 2:51:29 PM
Surr: 4-Bromofluorobenzene	79.7	65.9-130		%REC	1	12/9/2009 2:51:29 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	0.90	0.10		mg/L	1	12/4/2009 6:07:59 PM
Chloride	5.1	0.10		mg/L	1	12/4/2009 6:07:59 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	12/4/2009 6:07:59 PM
Nitrogen, Nitrate (As N)	0.54	0.10		mg/L	1	12/4/2009 6:07:59 PM
Sulfate	310	10		mg/L	20	12/4/2009 6:25:23 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **RAGS**
Iron	ND	0.020		mg/L	1	12/10/2009 5:55:33 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	841	20.0		mg/L	1	9/11/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Dec-09*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3
Lab Order:	0912076	**Collection Date:**	12/3/2009 10:20:00 AM
Project:	GCU COM B #143E	**Date Received:**	12/4/2009
Lab ID:	0912076-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	5.8	5.0		µg/L	5	12/10/2009 11:56:07 AM
Toluene	ND	5.0		µg/L	5	12/10/2009 11:56:07 AM
Ethylbenzene	130	5.0		µg/L	5	12/10/2009 11:56:07 AM
Xylenes, Total	830	10		µg/L	5	12/10/2009 11:56:07 AM
Surr: 4-Bromofluorobenzene	89.7	65.9-130		%REC	5	12/10/2009 11:56:07 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	0.91	0.10		mg/L	1	12/4/2009 6:42:47 PM
Chloride	6.1	0.10		mg/L	1	12/4/2009 6:42:47 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	12/4/2009 6:42:47 PM
Nitrogen, Nitrate (As N)	0.12	0.10		mg/L	1	12/4/2009 6:42:47 PM
Sulfate	71	10		mg/L	20	12/4/2009 7:00:12 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **RAGS**
Iron	2.3	0.10		mg/L	5	12/10/2009 6:48:34 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	598	20.0		mg/L	1	9/11/2009

Qualifiers:

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

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GCU com B #143E

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	031076	Analysis Request: BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TDS	NITRATE-N/NITRITE-N	IRON, FERROUS (FILTERED)		Air Bubbles (Y or N)
12/3/09	0955	WATER	MW #1	2-40ml	HCl & cool	1	✓															
"	"	"	"	1-125ml	HNO_3 & cool	1														✓		
"	"	"	"	1-125ml	H_2SO_4 & cool	1													✓			
"	"	"	"	1-250ml	Cool	1								✓				✓				
12/3/09	1035	WATER	MW #2	2-40ml	HCl & cool	2	✓															
"	"	"	"	1-125ml	HNO_3 & cool	2														✓		
"	"	"	"	1-125ml	H_2SO_4 & cool	2													✓			
"	"	"	"	1-250ml	Cool	2								✓				✓				
12/3/09	1020	WATER	MW #3	2-40ml	HCl & cool	3	✓															
"	"	"	"	1-125ml	HNO_3 & cool	3														✓		
"	"	"	"	1-125ml	H_2SO_4 & cool	3													✓			
"	"	"	"	1-250ml	Cool	3								✓				✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/3/09	1515			12/4/09	1000
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
IF ANION NO_3 CAN NOT BE ANALYZED WITHIN 48 HRS., THEN RUN NITRATE-N/NITRITE-N

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU COM B #143E **Work Order:** 0912076

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID: **R36438**		Analysis Date: 12/4/2009 4:40:55 PM			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID: **R36438**		Analysis Date: 12/4/2009 4:58:20 PM			
Fluoride	0.5076	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.959	mg/L	0.10	5	0	99.2	90	110			
Nitrogen, Nitrite (As N)	0.9613	mg/L	0.10	1	0	96.1	90	110			
Nitrogen, Nitrate (As N)	2.530	mg/L	0.10	2.5	0	101	90	110			
Sulfate	9.917	mg/L	0.50	10	0	99.2	90	110			
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID: **R36502**		Analysis Date: 12/9/2009 9:17:51 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: **R36519**		Analysis Date: 12/10/2009 9:24:16 AM			
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID: **R36502**		Analysis Date: 12/9/2009 7:55:32 PM			
Benzene	20.36	µg/L	1.0	20	0	102	85.9	113			
Toluene	20.22	µg/L	1.0	20	0	101	86.4	113			
Ethylbenzene	19.71	µg/L	1.0	20	0	98.6	83.5	118			
Xylenes, Total	58.62	µg/L	2.0	60	0	97.7	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID: **R36519**		Analysis Date: 12/10/2009 9:02:21 PM			
Benzene	19.63	µg/L	1.0	20	0	98.2	85.9	113			
Toluene	20.20	µg/L	1.0	20	0	101	86.4	113			
Ethylbenzene	19.78	µg/L	1.0	20	0.072	98.5	83.5	118			
Xylenes, Total	59.81	µg/L	2.0	60	0	99.7	83.4	122			
Method: EPA Method 6010B: Dissolved Metals											
Sample ID: MB		*MBLK*				Batch ID: **R36514**		Analysis Date: 12/10/2009 5:14:10 PM			
Iron	ND	mg/L	0.020								
Sample ID: LCS		*LCS*				Batch ID: **R36514**		Analysis Date: 12/10/2009 5:16:59 PM			
Iron	0.4799	mg/L	0.020	0.5	0	96.0	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU COM B #143E

Work Order: 0912076

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-20815		*MBLK*				Batch ID:	**20815**	Analysis Date:			9/11/2009
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-20815		*LCS*				Batch ID:	**20815**	Analysis Date:			9/11/2009
Total Dissolved Solids	1021	mg/L	20.0	1000	0	102	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG

Date Received: 12/4/2009

Work Order Number 0912076

Received by: TLS

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature 12/4/09 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?	4.7°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: 2

<2 >12 unless noted below.

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 COM B # 143E - SEPARATOR PIT
UNIT M, SEC. 25, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : March 1, 2010

DEVELOPER / SAMPLER : N J V

Filename : 03-01-10.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.10	84.59	17.51	25.00	-	-	-	-	-
2	101.89	84.66	17.23	25.65	1220	7.32	1,000	17.4	4.25
3	102.20	84.49	17.71	25.80	1250	7.22	900	15.4	4.00

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	03/01/10	1215

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 and light brown tint appearance in MW # 2 & # 3 . Collected samples from MW # 2 & # 3 to analyze for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.40 ft., MW # 2 ~ 2.25 ft., MW # 3 ~ 2.30 ft. above grade .

on-site	11:38	temp	41 F
off-site	1:00	temp	48 F
sky cond.	Mostly sunny		
wind speed	0 - 5	direct.	W

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Mar-10*

CLIENT: Blagg Engineering
Project: GCU COM B #143E
Lab Order: 1003072

Lab ID: 1003072-01
Collection Date: 3/1/2010 12:20:00 PM
Client Sample ID: MW #2
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/6/2010 2:19:54 AM
Toluene	ND	1.0		µg/L	1	3/6/2010 2:19:54 AM
Ethylbenzene	ND	1.0		µg/L	1	3/6/2010 2:19:54 AM
Xylenes, Total	ND	2.0		µg/L	1	3/6/2010 2:19:54 AM
Surr: 4-Bromofluorobenzene	91.8	65.9-130		%REC	1	3/6/2010 2:19:54 AM

Lab ID: 1003072-02
Collection Date: 3/1/2010 12:50:00 PM
Client Sample ID: MW #3
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/6/2010 2:50:23 AM
Toluene	ND	1.0		µg/L	1	3/6/2010 2:50:23 AM
Ethylbenzene	120	10		µg/L	10	3/8/2010 2:54:02 PM
Xylenes, Total	580	20		µg/L	10	3/8/2010 2:54:02 PM
Surr: 4-Bromofluorobenzene	113	65.9-130		%REC	1	3/6/2010 2:50:23 AM

Qualifiers:

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

Chain-of-Custody Record

Client: BLAGG ENER. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GCU COM B #143E

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: Yes No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
3/1/10	1220	WATER	MW #2	2-40ml	HCl & COOL	1	✓											
3/1/10	1250	WATER	MW #3	2-40ml	HCl & COOL	2	✓											

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/10	1500			3/3/10	1005
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU COM B #143E **Work Order:** 1003072

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37664**	Analysis Date:		3/5/2010 9:16:26 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 5		*MBLK*				Batch ID:	**R37677**	Analysis Date:		3/8/2010 11:21:44 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:	**R37664**	Analysis Date:		3/5/2010 8:43:42 PM	
Benzene	19.65	µg/L	1.0	20	0	98.3	85.9	113			
Toluene	19.01	µg/L	1.0	20	0	95.0	86.4	113			
Ethylbenzene	18.98	µg/L	1.0	20	0	94.9	83.5	118			
Xylenes, Total	57.39	µg/L	2.0	60	0	95.7	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R37677**	Analysis Date:		3/8/2010 8:58:22 PM	
Benzene	21.82	µg/L	1.0	20	0	109	85.9	113			
Toluene	21.28	µg/L	1.0	20	0	106	86.4	113			
Ethylbenzene	20.95	µg/L	1.0	20	0	105	83.5	118			
Xylenes, Total	62.35	µg/L	2.0	60	0	104	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*				Batch ID:	**R37664**	Analysis Date:		3/5/2010 9:13:58 PM	
Benzene	19.07	µg/L	1.0	20	0	95.4	85.9	113	3.02	27	
Toluene	18.37	µg/L	1.0	20	0	91.8	86.4	113	3.43	19	
Ethylbenzene	18.16	µg/L	1.0	20	0	90.8	83.5	118	4.39	10	
Xylenes, Total	55.07	µg/L	2.0	60	0	91.8	83.4	122	4.14	13	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG** Date Received: **3/3/2010**

Work Order Number **1003072** Received by: **TLS**

Checklist completed by: _____ 3/3/10 Sample ID labels checked by: _____

Signature Date 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?	**1.9°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

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 COM B # 143E - SEPARATOR PIT
UNIT M, SEC. 25, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 10, 2010

DEVELOPER / SAMPLER : N J V

Filename : 05-10-10.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.10	85.38	16.72	25.00	-	-	-	-	-
2	101.89	85.35	16.54	25.65	1140	7.32	1,000	16.8	4.50
3	102.20	85.21	16.99	25.80	1205	7.20	1,000	16.3	4.25

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	05/10/10	09015

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 and light brown tint appearance in MW # 2 & # 3 . Collected samples from MW # 2 & # 3 to analyze for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.40 ft., MW # 2 ~ 2.25 ft., MW # 3 ~ 2.30 ft. above grade .

on-site	11:14	temp	
off-site	12:15	temp	
sky cond.	Sunny / partly cloudy		
wind speed		direct.	WNW - W

Hall Environmental Analysis Laboratory, Inc.

Date: *24-May-10*

CLIENT: Blagg Engineering
Project: GCU COM B #143E
Lab Order: 1005289

Lab ID: 1005289-01
Collection Date: 5/10/2010 11:40:00 AM
Client Sample ID: MW #2
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	5/20/2010 2:43:45 PM
Toluene	ND	1.0		µg/L	1	5/20/2010 2:43:45 PM
Ethylbenzene	ND	1.0		µg/L	1	5/20/2010 2:43:45 PM
Xylenes, Total	ND	2.0		µg/L	1	5/20/2010 2:43:45 PM
Surr: 4-Bromofluorobenzene	87.0	65.9-130		%REC	1	5/20/2010 2:43:45 PM

Lab ID: 1005289-02
Collection Date: 5/10/2010 12:05:00 PM
Client Sample ID: MW #3
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	5/20/2010 4:15:03 PM
Toluene	ND	1.0		µg/L	1	5/20/2010 4:15:03 PM
Ethylbenzene	9.2	1.0		µg/L	1	5/20/2010 4:15:03 PM
Xylenes, Total	42	2.0		µg/L	1	5/20/2010 4:15:03 PM
Surr: 4-Bromofluorobenzene	86.9	65.9-130		%REC	1	5/20/2010 4:15:03 PM

Qualifiers:

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

Chain of Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: 505 632-1199

Email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: GCU COM B #143E

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1005289	Analysis Request: BTEX + MTBE + TMBs (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
5/10/10	1140	WATER	MW #2	2-40ml	HCl & COOL	1	✓															
5/10/10	1205	WATER	MW #3	2-40ml	HCl & COOL	2	✓															

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/11/10	1615				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				5/12/10	10:15

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU COM B #143E **Work Order:** 1005289

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R38838**	Analysis Date:		5/20/2010 9:10:09 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:	**R38838**	Analysis Date:		5/20/2010 8:48:11 PM	
Benzene	20.66	µg/L	1.0	20	0	103	87.9	121			
Toluene	19.36	µg/L	1.0	20	0	96.8	83	124			
Ethylbenzene	19.10	µg/L	1.0	20	0.134	94.8	81.7	122			
Xylenes, Total	59.26	µg/L	2.0	60	0	98.8	85.6	121			
Sample ID: 100NG BTEX LCSD		*LCSD*				Batch ID:	**R38838**	Analysis Date:		5/20/2010 9:18:30 PM	
Benzene	20.59	µg/L	1.0	20	0	103	87.9	121	0.330	14.6	
Toluene	19.61	µg/L	1.0	20	0	98.1	83	124	1.29	18	
Ethylbenzene	19.55	µg/L	1.0	20	0.134	97.1	81.7	122	2.33	15.8	
Xylenes, Total	60.09	µg/L	2.0	60	0	100	85.6	121	1.39	15.9	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG** Date Received: **5/12/2010**

Work Order Number **1005289** Received by: ARS

Checklist completed by: _____ 5/12/10 Sample ID labels checked by: _____
Signature Date Initials

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**3.4°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GCU COM B # 143E - SEPARATOR PIT
UNIT M, SEC. 25, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : July 22, 2010

DEVELOPER / SAMPLER : N J V

Filename : 07-22-10.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.10	87.56	14.54	25.00	-	-	-	-	-
2	101.89	87.51	14.38	25.65	-	-	-	-	-
3	102.20	87.32	14.88	25.80	0825	7.17	1,000	19.2	5.50

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	07/20/10	0800

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 and light brown tint appearance in MW # 3 . Collected sample from MW # 3 to analyze for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.40 ft., MW # 2 ~ 2.25 ft., MW # 3 ~ 2.30 ft. above grade .

on-site	7:27	**temp**	70 F
off-site	8:43	**temp**	73 F
sky cond.	Mostly cloudy		
wind speed	0 - 5	**direct.**	N

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-10*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3
Lab Order:	1007844	**Collection Date:**	7/22/2010 8:25:00 AM
Project:	GCU COM B #143E	**Date Received:**	7/23/2010
Lab ID:	1007844-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	7/27/2010 4:00:34 AM
Toluene	ND	1.0		µg/L	1	7/27/2010 4:00:34 AM
Ethylbenzene	25	1.0		µg/L	1	7/27/2010 4:00:34 AM
Xylenes, Total	88	2.0		µg/L	1	7/27/2010 4:00:34 AM
Surr: 4-Bromofluorobenzene	118	65.9-130		%REC	1	7/27/2010 4:00:34 AM

Qualifiers:

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

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Client: BLAZE ENER. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other ______

☐ EDD (Type) ______

Turn-Around Time:
☒ Standard ☐ Rush ______

Project Name: GCU COM B # 143E

Project #:

Project Manager: NELSON VELEZ (nv)

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: [illegible]

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1007[illegible]	BTEX ~~+ MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				
7/22/10 (nv)	0825	WATER	MW #3	40ml-2	HCl & COOL	1	✓														

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/22/10	1530	[illegible signature]	[illegible signature]	7/23/10	735
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU COM B #143E **Work Order:** 1007844

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				**Batch ID:**	**R40035**	**Analysis Date:**	7/26/2010 9:47:15 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:**	**R40035**	**Analysis Date:**	7/26/2010 12:19:12 PM		
Benzene	19.22	µg/L	1.0	20	0	96.1	87.9	121			
Toluene	20.45	µg/L	1.0	20	0	102	83	124			
Ethylbenzene	20.00	µg/L	1.0	20	0	100	81.7	122			
Xylenes, Total	60.28	µg/L	2.0	60	0	100	85.6	121			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG** Date Received: **7/23/2010**

Work Order Number **1007844** Received by: **TLS**

Checklist completed by: _____ 7/23/10 Sample ID labels checked by: _____

Signature Date Initials

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**0.7°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GCU COM B # 143E - SEPARATOR PIT
UNIT M, SEC. 25, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : October 21, 2010

DEVELOPER / SAMPLER : N J V

Filename : 10-21-10.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.10	87.74	14.36	25.00	-	-	-	-	-
2	101.89	87.65	14.24	25.65	1435	7.18	1,200	17.1	5.50
3	102.20	87.46	14.74	25.80	1505	7.11	1,100	17.4	5.50

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	10/21/10	0940

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 and light brown tint appearance in MW # 2 & # 3 . Collected samples from MW # 2 & # 3 to analyze for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.40 ft., MW # 2 ~ 2.25 ft., MW # 3 ~ 2.30 ft. above grade .

on-site	1:50	temp	59 F
off-site	3:15	temp	61 F
sky cond.	Partly cloudy		
wind speed	0 - 5	direct.	N

Hall Environmental Analysis Laboratory, Inc.

Date: *01-Nov-10*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #2
Lab Order:	1010A00	**Collection Date:**	10/21/2010 2:35:00 PM
Project:	GCU Com B #143E	**Date Received:**	10/22/2010
Lab ID:	1010A00-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	10/29/2010 11:38:17 PM
Toluene	ND	1.0		µg/L	1	10/29/2010 11:38:17 PM
Ethylbenzene	ND	1.0		µg/L	1	10/29/2010 11:38:17 PM
Xylenes, Total	ND	2.0		µg/L	1	10/29/2010 11:38:17 PM
Surr: 4-Bromofluorobenzene	102	81.3-151		%REC	1	10/29/2010 11:38:17 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *01-Nov-10*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3
Lab Order:	1010A00	**Collection Date:**	10/21/2010 3:05:00 PM
Project:	GCU Com B #143E	**Date Received:**	10/22/2010
Lab ID:	1010A00-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	38	1.0		µg/L	1	10/30/2010 12:08:50 AM
Toluene	ND	1.0		µg/L	1	10/30/2010 12:08:50 AM
Ethylbenzene	28	1.0		µg/L	1	10/30/2010 12:08:50 AM
Xylenes, Total	180	2.0		µg/L	1	10/30/2010 12:08:50 AM
Surr: 4-Bromofluorobenzene	122	81.3-151		%REC	1	10/30/2010 12:08:50 AM

Qualifiers:

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

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other ________

☐ EDD (Type) ________

Turn-Around Time:
☒ Standard ☐ Rush ________

Project Name: GCU com B # 143E

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: [illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. [illegible]	BTEX ~~+ MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
/13/10	1435	WATER	MW #2	40ml-2	HCl & COOL	1	✓															
							~~✓~~															
/13/10	1505	WATER	MW #3	40ml-2	HCl & COOL	2	✓															

Date:	Time:	Relinquished by:	Received by:	Date	Time
/21/10	1550	[signature]	M. Walters	10/22/10	1020

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU Com B #143E **Work Order:** 1010A00

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID: **R41878**		Analysis Date: 10/29/2010 10:37:50 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: **R41878**		Analysis Date: 10/29/2010 9:05:42 PM			
Benzene	20.80	µg/L	1.0	20	0	104	84.7	118			
Toluene	21.18	µg/L	1.0	20	0	106	82	123			
Ethylbenzene	21.55	µg/L	1.0	20	0	108	83	118			
Xylenes, Total	65.51	µg/L	2.0	60	0	109	85.4	119			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date Received: 10/22/2010

Work Order Number 1010A00 | Received by: MLW

Checklist completed by: Signature 10/22/10 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: Priority US Mail

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 ☐		Number of preserved bottles checked for pH:
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 ☐	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**2.7°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____