3R - 420

GWMR

03 / 02 / 2007

SR-420

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

2007 MAR 8 AM 11 37

March 2, 2007

Mr. Glenn von Gonten, Hydrologist
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: BP America Production Company
Notice of Potential Groundwater Impact
GCU #204E
(I)Sec. 34 - T28N – R12W, San Juan County, NM

Dear Mr. von Gonten:

On behalf of BP America Production Company, Blagg Engineering, Inc. (BEI) has identified potential groundwater impacts at the subject location. During a pit closure investigation to determine the vertical extent of soil impacts, groundwater was encountered at a depth of approximately fourteen and one half (14.5) feet below grade. A monitor well was set and initial sampling test results indicate that groundwater exceeding New Mexico Water Quality Control Commission regulatory standards for benzene, toluene, ethylbenzene and total xylenes (BTEX) has been encountered. This site is located in a rural area of San Juan County with no known private or municipal water wells within 1 mile of the impact. Listed below are summary analytical test results for BTEX from a groundwater sample collected on November 14, 2006:

Parameter	Water Test Results (ug/L)
Benzene	1,000
Toluene	3,900
Ethylbenzene	1,100
Total Xylenes	9,700

BP will implement it Groundwater Management Plan to complete investigation and remediation of impacts. A groundwater abatement plan will be prepared and submitted to NMOCD by April 13, 2007 for regulatory approval.

If you have questions or need additional information, please contact either myself at (505)632-1199 or Mr. Larry Schlotterback of BP at (505)326-9200.

Respectfully:
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

cc: Brandon Powell - NMOCD Aztec
Mr. Steven B. Etsitty – NNEPA Exec. Director
Larry Schlotterback - BP SJ Op. Ctr.

File: GCU204Egwrelease.wpd

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

SENT VIA USPS CERTIFIED

2007 APR 12 AM 10 20

April 10, 2007

Mr. Glenn von Gonten, Hydrologist
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: BP America Production Company
Transmittal of Abatement Plan
GCU 204E: (I) Sec. 34 - T28N – R12W, San Juan County, NM

Dear Mr. vonGonten:

On behalf of BP America Production Company, Blagg Engineering, Inc. (BEI) is submitting the attached Abatement Plan for the GCU 204E, (I) Sec. 34 – T28N – R12W, San Juan County, New Mexico pursuant to our correspondence dated March 2, 2007. The plan has been prepared to meet the requirements stipulated in NMOCD Rule 116D.

We welcome your feedback on this plan. If you have questions or need additional information, please contact either myself at (505)632-1199 or Mr. Larry Schlotterback of BP at (505)326-9200.

Respectfully:
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

cc: Bill Freeman – NNEPA Shiprock
Brandon Powell - NMOCD Aztec
Larry Schlotterback – BP SJ Op. Ctr.

File: GCU204E.gwplan.xmt

BP America Production Company

ABATEMENT PLAN

GCU 204E
(I) Sec. 34 – T28N – R12W
San Juan County, New Mexico

I. Introduction

A release of hydrocarbons affecting groundwater was discovered at the GCU 204E during investigation of the vertical extent of soil impacts at an abandon historical waste pit site. During this investigation groundwater was encountered at a depth of approximately 14.5 feet below ground surface. A monitor well was set and sampling on November 14, 2006 identified groundwater impacts exceeding New Mexico Water Quality Control Commission (NMWQCC) standards for volatile hydrocarbons.

The location is in a remote area with no immediate residents, down-gradient surface waters or water wells within a 1-mile radius that could be influenced.

BP intends to investigate and remediate source area soils and groundwater to minimize impacts to the environment. Outlined below is an abatement plan designed to meet the requirements of the New Mexico Oil Conservation Division (NMOCD) Rule 116D.

II. Site Investigation/Abatement

Site investigation and abatement is proposed to be conducted concurrently using excavation equipment to remove all identified impacted soils known to exceed NMOCD standards, beginning from the ground surface and extending to below the water table found at approximately 14.5 feet below grade. During this work, soil type, groundwater depth and the extent of impacts will be investigated.

Water wells within a 1-mile radius of the site will be identified. Any wells that may be impacted by the release will be sampled and tested for impacts, pending well owner authorization.

Following remedial actions, a minimum of three (3) groundwater monitoring wells will be installed for testing water quality and identifying gradient. Additional wells may be installed to insure that adequate monitoring points are placed up-gradient, in the original source area and down-gradient from the source area.

Initial well testing will be for volatile organics (BTEX) by an appropriate laboratory analytical procedure (U.S. EPA 8021 or 8260) and for cation/anion analysis. If a product sheen is identified during the initial sample event, polynuclear aromatic hydrocarbons (PAH's) will be included in the laboratory testing.

If initial testing indicates an absence of contaminates in all wells, site closure with no further sampling may be requested. However, if contaminates are detected in any well, additional testing will be conducted until consecutive tests indicate residual contaminates are below standards for any given monitoring point.

Quality assurance/quality control (QA/QC) will include following standard SW 846 procedures for well development, sample collection, storage and delivery to the laboratory. Chain-of-custody documentation will be included with each sample. Only qualified laboratories with adequate QA/QC processes that follow U.S. EPA protocol will be selected for sample analysis.

Following remediation efforts and initial well sampling, a report summarizing site activities will be prepared and submitted for NMOCD approval. Included with this report will be:

a. The results of the initial investigation including identification of the water well inventory, a description of the applicable surface and groundwater hydrology and water flow relationships.
b. Geologic/lithologic logs and well construction diagrams.
c. Geologic cross sections, as appropriate
d. Water table contour maps, including the location pertinent site features, depicting the magnitude and direction of the hydraulic gradient
e. Isopleth maps, as appropriate
f. Summary tables of water quality testing, including laboratory test reports with QA/QC.
g. Waste disposition.
h. Recommendations for future actions, including a schedule for future monitor well sampling and a reporting schedule.

III. Summary

BP intents to initiate remedial actions at the GCU 204E on a proactive basis to minimize potential impacts to the environment. If subsequent monitoring and testing indicates that these actions will not adequately address remediation of groundwater impacts, a revised abatement plan will be submitted for NMOCD approval.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

GCU # 204E
UNIT I, SEC. 34, T28N, R12W

REVISED DATE: FEBRUARY 6, 2007

FILENAME: (GDK-4Q06.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
30-Jan-07	MW#1	18.57	27.00	584	1,100	7.33		ND	3.0	2.3	13
14-Nov-06	MW#2	16.69	27.50	924	1,400	6.80		**1,000**	**3,900**	**1,100**	**9,700**
30-Jan-07		16.97			1,200	6.89		**900**	**1,600**	**1,400**	**12,000**
30-Jan-07	MW#3	13.92	25.00	620	1,000	7.00		8.2	ND	71	120
					NMWQCC GROUNDWATER STANDARDS			10	750	750	620

NOTES : 1) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .

GENERAL WATER QUALITY

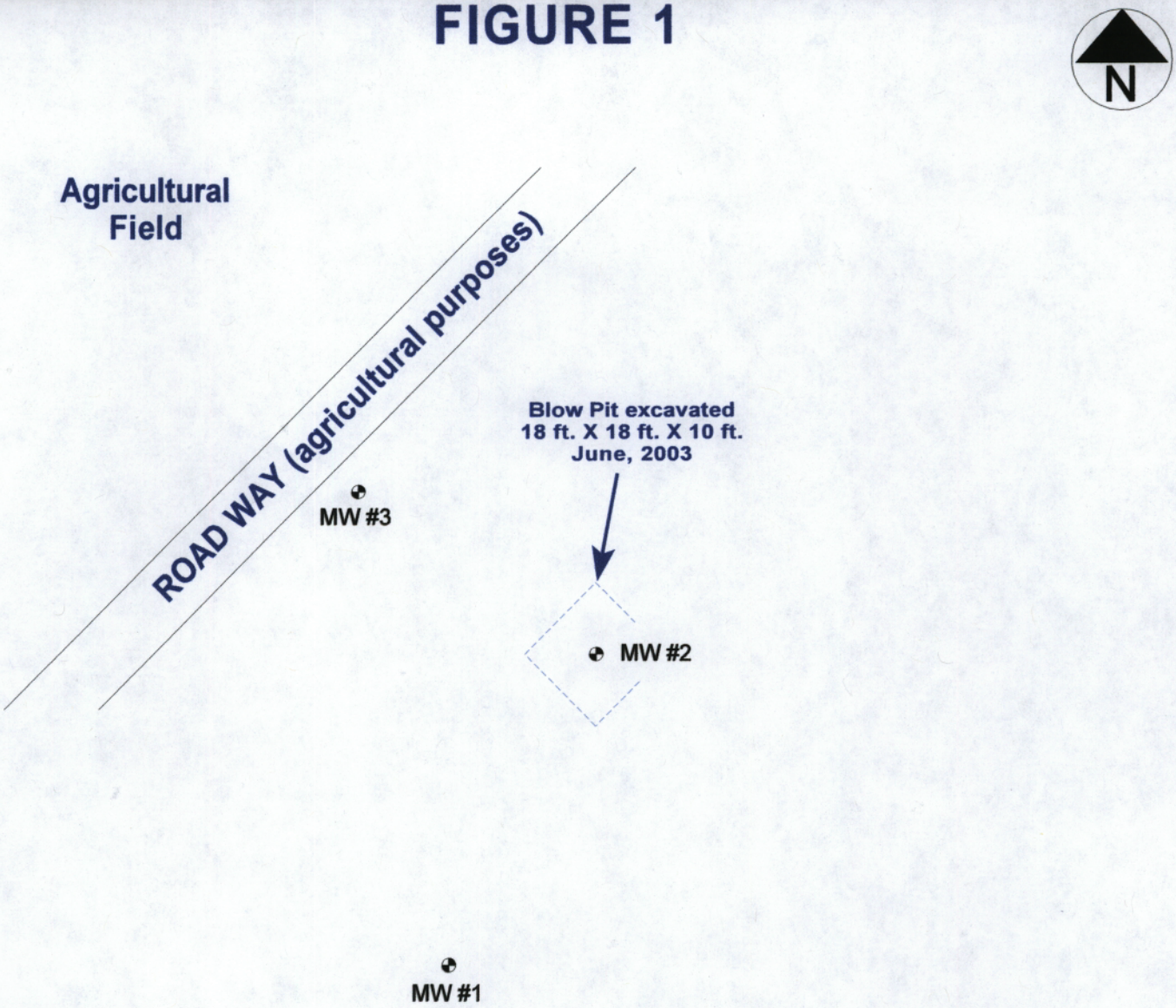
BP AMERICA PRODUCTION COMPANY

GCU # 204E

Sample Dates : Nov. 14 , 2006 & Jan. 30 , 2007

PARAMETERS	MW # 1 01/30/07	MW # 2 11/14/06	MW # 3 01/30/07	Units
LAB pH	7.12	7.08	7.10	s. u.
LAB CONDUCTIVITY @ 25 C	1,110	1,310	1,090	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	584	924	620	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	574	918	617	mg / L
SODIUM ABSORPTION RATIO	1.4	5.4	1.4	ratio
TOTAL ALKALINITY AS CaCO3	254	420	369	mg / L
TOTAL HARDNESS AS CaCO3	331	300	394	mg / L
BICARBONATE as HCO3	254	420	369	mg / L
CARBONATE AS CO3	< 0.1	< 0.1	< 0.1	mg / L
HYDROXIDE AS OH	< 0.1	< 0.1	< 0.1	mg / L
NITRATE NITROGEN	10.8	3.9	0.8	mg / L
NITRITE NITROGEN	0.484	0.43	0.082	mg / L
CHLORIDE	42.2	192	96.2	mg / L
FLUORIDE	0.57	1.00	0.69	mg / L
PHOSPHATE	1.2	0.6	0.8	mg / L
SULFATE	180	142	90.0	mg / L
IRON	0.006	0.672	0.001	mg / L
CALCIUM	102	84.5	108	mg / L
MAGNESIUM	18.8	21.7	30.3	mg / L
POTASSIUM	3.48	2.82	3.39	mg / L
SODIUM	60.4	214	63.0	mg / L
CATION / ANION DIFFERENCE	0.03	0.11	0.02	

FIGURE 1



1 INCH = 30 FT.

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.

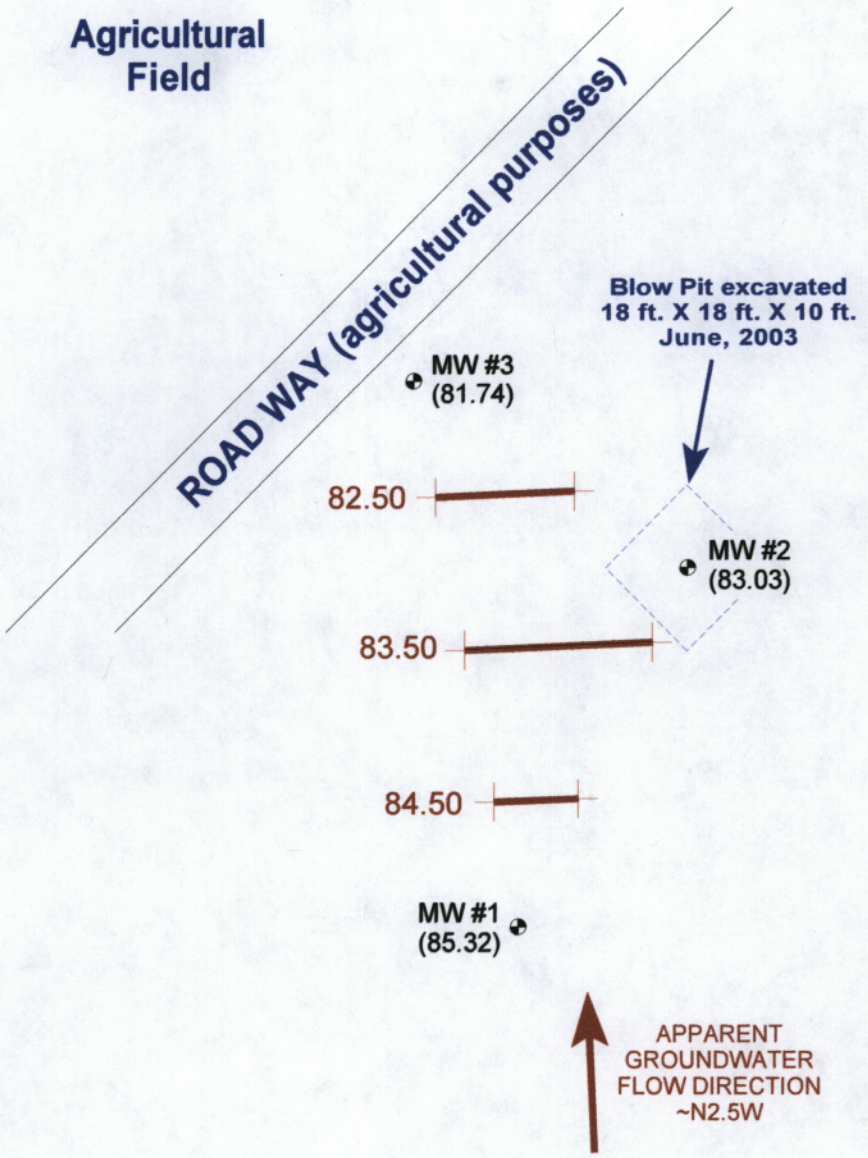
BP AMERICA PRODUCTION CO.
GCU #204E
NE/4 SE/4 SEC. 34, T28N, R12W
SAN JUAN COUNTY, NEW MEXICO

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

PROJECT: MW INSTALL.
DRAWN BY: NJV
FILENAME: GCU 204E-SM.SKF
DRAFTED: 01-30-07 NJV

SITE MAP
01/07

FIGURE 2
(1st 1/4, 2007)



1 INCH = 30 FT.

0 30 60 FT.

	Top of Well Elevation
MW #1	(103.89)
MW #2	(100.00)
MW #3	(95.66)
MW #1 (85.32)	Groundwater Elevation as of 1/30/07.

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 #204E
NE/4 SE/4 SEC. 34, T28N, 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: 01-30-07-GW.SKF
DRAFTED: 01-31-07 NJV

GROUNDWATER CONTOUR MAP
01/07

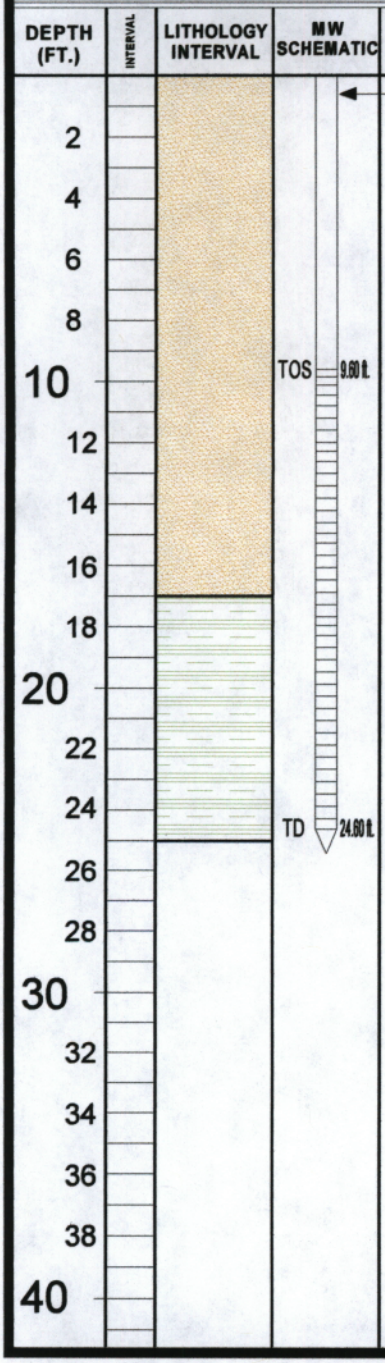
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #1

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #204E UNIT I, SEC. 34, T28N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	61.5 FEET, S25.5W FROM MW #2.

BORING #.....	BH - 2
MW #.....	1
PAGE #.....	1
DATE STARTED	01/18/07
DATE FINISHED	01/18/07
OPERATOR.....	DP
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).

GREENISH TO DARK GREENISH GRAY SILTY CLAY, COHESIVE, DRY TO SLIGHTLY MOIST, FIRM TO DENSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 25.0 FT. BELOW GRADE).

NOTES:
- SAND.
- SILTY CLAY.

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 9.60 ft. below grade, 0.010 slotted screen between 9.60 to 24.60 ft. below grade, sand packed annular to 8.0 ft. below grade, bentonite grout between 5.0 to 8.0 ft. below grade, clean fill dirt between 0.0 to 5.0 ft. below grade. Well protector encompassing above grade casing and secured with padlock.

DRAWING: GCU 204E MW1-BH2. SKF | DATE: 01/19/07 | DWN BY: NJV

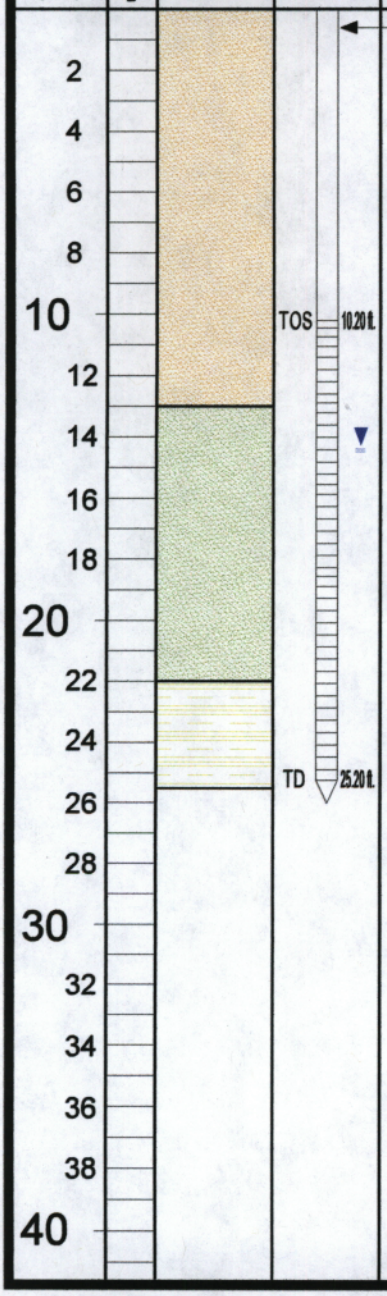
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #2

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #204E UNIT I, SEC. 34, T28N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	531 FEET, N3W FROM WELL HEAD.

BORING #.....	BH - 1
MW #.....	2
PAGE #.....	2
DATE STARTED	11/1/06
DATE FINISHED	11/1/06
OPERATOR.....	DP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.30 FEET ABOVE GRADE.

DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN 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. 14.39 FT. FROM GROUND SURFACE MEASURED ON 11/14/06.

GREENISH TO DARK GREENISH GRAY SILTY SAND TO SILTY CLAY, NON COHESIVE, SLIGHTLY MOIST TO WET, FIRM TO DENSE, STRONG HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (13.0 - 22.0 FT. BELOW GRADE).

OLIVE GRAY SILTY CLAY, NON COHESIVE, SLIGHTLY MOIST TO MOIST, FIRM TO DENSE, SLIGHT APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (22.0 - 25.5 FT. BELOW GRADE).

NOTES:
- SAND.
- SILTY SAND TO SILTY CLAY (IMPACTED).
- SILTY CLAY.

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 10.20 ft. below grade, 0.010 slotted screen between 10.20 to 25.20 ft. below grade, sand packed annular to 6.5 ft. below grade, bentonite grout between 3.5 to 6.5 ft. below grade, portland cement between 0.0 to 3.5 ft. below grade. Well protector encompassing above grade casing and secured with padlock.

DRAWING: GCU 204E MW2-BH1. SKF | DATE: 11/17/06 | DWN BY: NJV

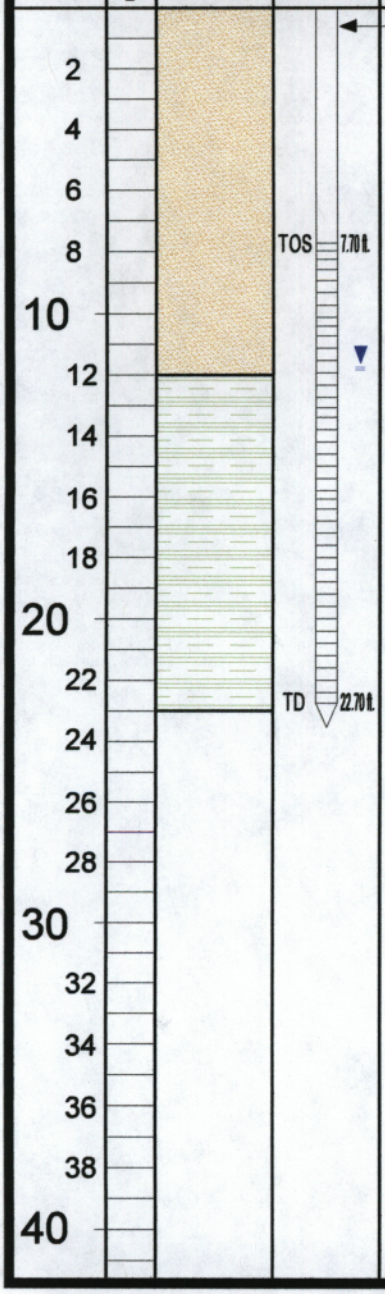
BLAGG ENGINEERING, Inc.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #3

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #204E UNIT I, SEC. 34, T28N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	51.5 FEET, N56W FROM MW #2.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	01/18/07
DATE FINISHED	01/18/07
OPERATOR.....	DP
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 - 12.0 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 11.70 FT. FROM GROUND SURFACE MEASURED ON 11/14/06.

GREENISH TO DARK GREENISH GRAY SILTY CLAY TO CLAY, COHESIVE TO PLASTIC, DRY TO SLIGHTLY MOIST, DENSE TO STIFF, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (12.0 - 23.0 FT. BELOW GRADE).

NOTES:
- SAND.
- SILTY CLAY TO CLAY.

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 7.70 ft. below grade, 0.010 slotted screen between 7.70 to 22.70 ft. below grade, sand packed annular to 6.0 ft. below grade, bentonite grout between 3.0 to 6.0 ft. below grade, clean fill dirt between 0.0 to 3.0 ft. below grade. Well protector encompassing above grade casing and secured with padlock.

DRAWING: GCU 204E MW3-BH3. SKF | DATE: 01/19/07 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A & 14714

GCU # 204E - BLOW PIT
UNIT I, SEC. 34, T28N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL
ENVIROTECH

Date : November 14, 2006

SAMPLER : N J V

Filename : 11-14-06.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 - 2	-	-	16.69	27.50	1105	6.80	1,400	13.1	6.00
				INSTRUMENT CALIBRATIONS =		7.00	2,800		
				DATE & TIME =		11/14/06	0945		

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 . Slight greenish tint in appearance , wisp of a sheen observed on purged water surface within disposal bucket . Collected samples for BTEX and major anions / cations analyses .

Top of casing MW # 2 ~ 2.30 ft. above grade .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A & 14691

GCU # 204E - BLOW PIT
UNIT I, SEC. 34, T28N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL
ENVIROTECH

Date : January 30, 2007

SAMPLER : N J V

Filename : 01-30-07.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	103.89	85.32	18.57	27.00	1420	7.33	1,100	12.5	4.25
MW - 2	100.00	83.03	16.97	27.50	1115	6.89	1,200	13.5	5.25
MW - 3	95.66	81.74	13.92	25.00	1035	7.00	1,000	11.9	5.50
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	01/30/07	0830		

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 all MW's. All contained olive gray appearance. Strong hydrocarbon odor detected physically within purged water from MW # 2. Collected BTEX from all MW's & major anions / cations from MW # 1 & # 3.

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Nov-06*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW-2
Lab Order:	0611181	**Collection Date:**	11/14/2006 11:05:00 AM
Project:	GCU #204E	**Date Received:**	11/15/2006
Lab ID:	0611181-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	1000	40		µg/L	40	11/20/2006 12:52:12 PM
Toluene	3900	40		µg/L	40	11/20/2006 12:52:12 PM
Ethylbenzene	1100	40		µg/L	40	11/20/2006 12:52:12 PM
Xylenes, Total	9700	300		µg/L	100	11/20/2006 3:25:01 PM
Surr: 4-Bromofluorobenzene	102	70.2-105		%REC	40	11/20/2006 12:52:12 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		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #2	Date Reported:	11-17-06
Laboratory Number:	39150	Date Sampled:	11-14-06
Chain of Custody:	14714	Date Received:	11-14-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-15-06
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	7.08	s.u.		
Conductivity @ 25° C	1,310	umhos/cm		
Total Dissolved Solids @ 180C	924	mg/L		
Total Dissolved Solids (Calc)	918	mg/L		
SAR	5.4	ratio		
Total Alkalinity as CaCO3	420	mg/L		
Total Hardness as CaCO3	300	mg/L		
Bicarbonate as HCO3	420	mg/L	6.88	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	3.9	mg/L	0.06	meq/L
Nitrite Nitrogen	0.43	mg/L	0.01	meq/L
Chloride	192	mg/L	5.42	meq/L
Fluoride	1.00	mg/L	0.05	meq/L
Phosphate	0.6	mg/L	0.02	meq/L
Sulfate	142	mg/L	2.96	meq/L
Iron	0.672	mg/L	0.02	meq/L
Calcium	84.5	mg/L	4.22	meq/L
Magnesium	21.7	mg/L	1.79	meq/L
Potassium	2.82	mg/L	0.07	meq/L
Sodium	214	mg/L	9.31	meq/L
Cations			15.38	meq/L
Anions			15.40	meq/L
Cation/Anion Difference			0.11%	

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 #204E 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 #204E

Project #: NV

Project Manager: NV

Sampler: NV

Sample Temperature: 1°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	HEAL No.
11/14/06	1105	WATER	MW #2	2-40ml	✓		0611181 1

ANALYSIS REQUEST

(BTEX) + MTBE + TMBs (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: 11/14/06 Time: 1700 Relinquished By: (Signature)

Received By: (Signature) 11/15/06 931

Date: Time: Relinquished By: (Signature)

Received By: (Signature)

Remarks:

CHAIN OF CUSTODY RECORD

14714

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / BP	GCU #204E	

Sampler: NV

Client No.: 94034-010

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	MAJOR ANIONS / CATIONS	Remarks
MW #2	11/14/06	1105	39150	WATER	1	✓	PRESERVED COOL GRAB SAMPLE

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	11/14/06	1445	Shelly Wall	11/14/06	1445
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	✓		

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Feb-07*

CLIENT: Blagg Engineering
Project: GCU #204E
Lab Order: 0702006

Lab ID: 0702006-01
Client Sample ID: MW #1
Collection Date: 1/30/2007 2:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	ND	1.0		µg/L	1	2/1/2007 10:46:31 PM
Toluene	3.0	1.0		µg/L	1	2/1/2007 10:46:31 PM
Ethylbenzene	2.3	1.0		µg/L	1	2/1/2007 10:46:31 PM
Xylenes, Total	13	3.0		µg/L	1	2/1/2007 10:46:31 PM
Surr: 4-Bromofluorobenzene	87.1	70.2-105		%REC	1	2/1/2007 10:46:31 PM

Lab ID: 0702006-02
Client Sample ID: MW #2
Collection Date: 1/30/2007 11:15:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	900	100		µg/L	100	2/2/2007 5:56:50 PM
Toluene	1600	100		µg/L	100	2/2/2007 5:56:50 PM
Ethylbenzene	1400	100		µg/L	100	2/2/2007 5:56:50 PM
Xylenes, Total	12000	300		µg/L	100	2/2/2007 5:56:50 PM
Surr: 4-Bromofluorobenzene	87.4	70.2-105		%REC	100	2/2/2007 5:56:50 PM

Lab ID: 0702006-03
Client Sample ID: MW #3
Collection Date: 1/30/2007 10:35:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	8.2	1.0		µg/L	1	2/2/2007 7:59:50 PM
Toluene	ND	1.0		µg/L	1	2/2/2007 7:59:50 PM
Ethylbenzene	71	1.0		µg/L	1	2/2/2007 7:59:50 PM
Xylenes, Total	120	3.0		µg/L	1	2/2/2007 7:59:50 PM
Surr: 4-Bromofluorobenzene	91.2	70.2-105		%REC	1	2/2/2007 7:59:50 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 #1	Date Reported:	01-31-07
Laboratory Number:	39876	Date Sampled:	01-30-07
Chain of Custody:	14691	Date Received:	01-30-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-31-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**7.12**	s.u.		
Conductivity @ 25° C	**1,110**	umhos/cm		
Total Dissolved Solids @ 180C	**584**	mg/L		
Total Dissolved Solids (Calc)	**574**	mg/L		
SAR	**1.4**	ratio		
Total Alkalinity as CaCO3	**254**	mg/L		
Total Hardness as CaCO3	**331**	mg/L		
Bicarbonate as HCO3	**254**	mg/L	4.16	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	**10.8**	mg/L	0.17	meq/L
Nitrite Nitrogen	**0.484**	mg/L	0.01	meq/L
Chloride	**42.2**	mg/L	1.19	meq/L
Fluoride	**0.57**	mg/L	0.03	meq/L
Phosphate	**1.2**	mg/L	0.04	meq/L
Sulfate	**180**	mg/L	3.75	meq/L
Iron	**0.006**	mg/L	0.00	meq/L
Calcium	**102**	mg/L	5.09	meq/L
Magnesium	**18.8**	mg/L	1.55	meq/L
Potassium	**3.48**	mg/L	0.09	meq/L
Sodium	**60.4**	mg/L	2.63	meq/L
Cations			9.35	meq/L
Anions			9.35	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 #204E 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:	01-31-07
Laboratory Number:	39877	Date Sampled:	01-30-07
Chain of Custody:	14691	Date Received:	01-30-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-31-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	**7.10**	s.u.		
Conductivity @ 25° C	**1,090**	umhos/cm		
Total Dissolved Solids @ 180C	**620**	mg/L		
Total Dissolved Solids (Calc)	**617**	mg/L		
SAR	**1.4**	ratio		
Total Alkalinity as CaCO3	**369**	mg/L		
Total Hardness as CaCO3	**394**	mg/L		
Bicarbonate as HCO3	**369**	mg/L	6.05	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	**0.8**	mg/L	0.01	meq/L
Nitrite Nitrogen	**0.082**	mg/L	0.00	meq/L
Chloride	**96.2**	mg/L	2.71	meq/L
Fluoride	**0.69**	mg/L	0.04	meq/L
Phosphate	**0.8**	mg/L	0.03	meq/L
Sulfate	**90.0**	mg/L	1.87	meq/L
Iron	**0.001**	mg/L	0.00	meq/L
Calcium	**108**	mg/L	5.39	meq/L
Magnesium	**30.3**	mg/L	2.49	meq/L
Potassium	**3.39**	mg/L	0.09	meq/L
Sodium	**63.0**	mg/L	2.74	meq/L
Cations			10.71	meq/L
Anions			10.71	meq/L
Cation/Anion Difference			**0.02%**	

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 #204E Grab Sample**

Analyst

Review

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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 # 204E
Project #:
Project Manager: NV
Sampler: NV
Sample Temperature: 3°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.	(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)
1/30/07	1420	WATER	MW #1	2-40ml	✓			07020010 1	✓																
1/30/07	1115	WATER	MW #2	2-40ml	✓			2	✓																
1/30/07	1035	WATER	MW #3	2-40ml	✓			3	✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
1/31/07	0650			2/1/07
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	935

Remarks:

14691

CHAIN OF CUSTODY RECORD

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / BP	GCU # 204E	

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
MW #1	1/30/07	1420	39876	WATER	1	✓	GRAB SAMPLES
MW # 3	1/30/07	1035	39877	WATER	1	✓	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	1/30/07	1447	[signature]	1/30/07	1447
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	✓		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: BP AMERICA PROD. CO. Telephone: (505)-326-9200 e-mail address:
Address: 200 ENERGY COURT, FARMINGTON, NM 87410
Facility or well name: GCU #204E API #: 30-045- 25262 U/L or Qtr/Qtr I Sec 34 T 28N R 12W
County: SAN JUAN Latitude 36.61615 Longitude 108.09146 NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☒

Pit
Type: Drilling ☐ Production ☒ Disposal ☐ BLOW
Workover ☐ Emergency ☐
Lined ☐ Unlined ☒
Liner type: Synthetic ☐ Thickness _____mil Clay ☐
Pit Volume _____bbl

Below-grade tank
Volume: _____bbl Type of fluid:
Construction material:
Double-walled, with leak detection? Yes ☐ If not, explain why not.
N/A

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (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 No	(20 points) (0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)	0
	Ranking Score (Total Points)		20

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☒ If yes, show depth below ground surface 14.5 ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: PIT LOCATED APPROXIMATELY 531 FT. N3W FROM WELL HEAD.
PIT EXCAVATION: WIDTH 18 ft., LENGTH 16 ft., DEPTH 10 ft. .
PIT REMEDIATION: CLOSE AS IS: ☐, LANDFARM: ☒, COMPOST: ☐, STOCKPILE: ☐, OTHER ☐ (explain) MONITORING
Cubic yards: 100
ESTABLISH VERTICAL EXTENT. GROUNDWATER IMPACTED.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an alternative OCD-approved plan ☒.**

Date: 12/01/06

PrintedName/Title Jeff Blagg – P.E. # 11607 Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title Signature Date:

VHL 3004525262 36.61615 108.09146

CLIENT: BP

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

LOCATION NO: B1221
COCR NO: 10880 / 12166 / N/A

FIELD REPORT: PIT CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: GCU WELL #: 204E TYPE: BLOW
QUAD/UNIT: I SEC: 34 TWP: 28N RNG: 12W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NW'S/1425'E NE/SE CONTRACTOR: FLINT (BEN)

DATE STARTED: 6/3/03
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 18 FT. x 16 FT. x 10 FT. DEEP. CUBIC YARDAGE: 100

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM

LAND USE: RANGE - SURF. LSE. - NAVAJO LEASE: NAVAJO FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 531 FT. N30W FROM WELLHEAD.

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMOCD RANKING SCORE: 20 NMOCD TPH CLOSURE STD: 100 PPM

OVM CALIB. READ. = 53.8 ppm
OVM CALIB. GAS = 100 ppm RF = 0.52
TIME: 8:12 am/pm DATE: 6/3/03

SOIL AND EXCAVATION DESCRIPTION:

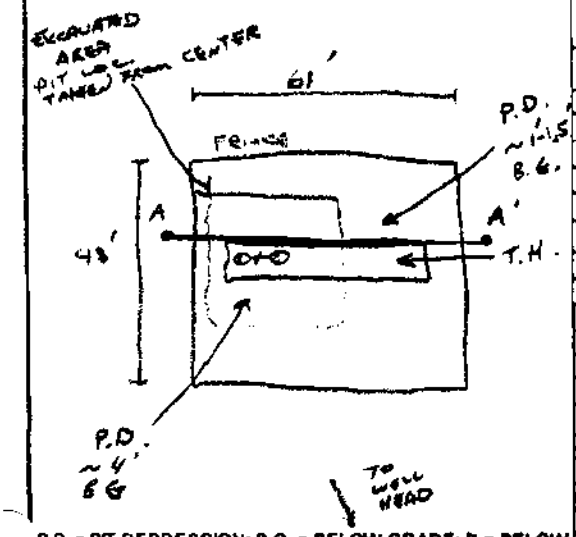
SOIL TYPE: (SAND) / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER
SOIL COLOR: DK. YELL ORANGE TO BLACK
COHESION (ALL OTHERS): (NON COHESIVE) / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE
CONSISTENCY (NON COHESIVE SOILS): (LOOSE) / (FIRM) / DENSE / VERY DENSE
~~PLASTICITY (CLAYS)~~: NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
~~DENSITY (COHESIVE CLAYS & SILTS)~~: SOFT / FIRM / STIFF / VERY STIFF / HARD
MOISTURE: DRY (SLIGHTLY MOIST) / MOIST / WET / SATURATED / SUPER SATURATED
DISCOLORATION/STAINING OBSERVED: (YES) / NO EXPLANATION - LT. GRAY TO BLACK (SEE PIT PROFILE)
HC ODOR DETECTED: (YES) / NO EXPLANATION - EXCAVATED SOIL & OVM SAMPLES.
SAMPLE TYPE: (GRAB) / COMPOSITE - # OF PTS. -
ADDITIONAL COMMENTS: VERTICAL EXTENT NEEDS TO BE ESTABLISHED.

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)

SCALE 0 FT

PIT PERIMETER



P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW
T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM

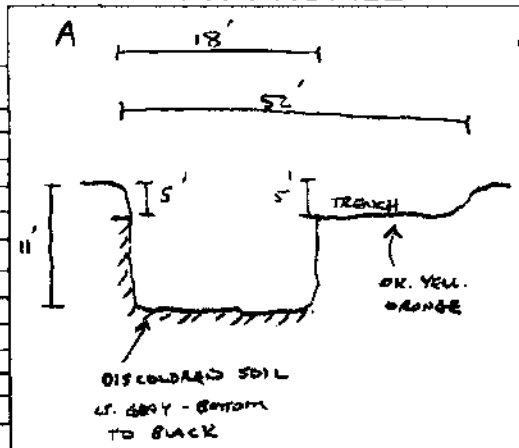
OVM READING

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @ 7'	1096
2 @ 11'	1005
3 @	
4 @	
5 @	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
@ 7'	TPH + BTEX	0750
@ 11'	TPH + BTEX	0800

PIT PROFILE



TRAVEL NOTES: CALLOUT: 6/2/03 - AFTER. ONSITE: 6/3/03 - MORN.

revised: 09/04/02 bei1005C.skf

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	1 @ 7'	Date Reported:	06-04-03
Laboratory Number:	25777	Date Sampled:	06-03-03
Chain of Custody No:	10880	Date Received:	06-03-03
Sample Matrix:	Soil	Date Extracted:	06-03-03
Preservative:	Cool	Date Analyzed:	06-04-03
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**723**	**0.2**
Diesel Range (C10 - C28)	**759**	**0.1**
Total Petroleum Hydrocarbons	**1,480**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **GCU #204E Blow Pit Grab Sample.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	1 @ 7'	Date Reported:	06-04-03
Laboratory Number:	25777	Date Sampled:	06-03-03
Chain of Custody:	10880	Date Received:	06-03-03
Sample Matrix:	Soil	Date Analyzed:	06-04-03
Preservative:	Cool	Date Extracted:	06-03-03
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**291**	**1.8**
Toluene	**1,730**	**1.7**
Ethylbenzene	**1,520**	**1.5**
p,m-Xylene	**989**	**2.2**
o-Xylene	**1,760**	**1.0**
Total BTEX	**6,290**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**98 %**
	1,4-difluorobenzene	**98 %**
	Bromochlorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **GCU #204E Blow Pit Grab Sample.**

Analyst

Review

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Hall Environmental Analysis Laboratory

Date: *10-Jun-03*

CLIENT:	Blagg Engineering	**Client Sample ID:**	1 @ 7'
Lab Order:	0306025	**Collection Date:**	6/3/2003 7:50:00 AM
Project:	GCU #204E Blow Pit		
Lab ID:	0306025-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	8100	100		mg/Kg	20	6/10/2003 2:48:10 PM
Motor Oil Range Organics (MRO)	1800	1000		mg/Kg	20	6/10/2003 2:48:10 PM
Surr: DNOP	88.4	60-124		%REC	20	6/10/2003 2:48:10 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1600	250		mg/Kg	50	6/5/2003 6:18:09 PM
Surr: BFB	139	74-118	S	%REC	50	6/5/2003 6:18:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	3.1	1.3		mg/Kg	50	6/5/2003 6:18:09 PM
Toluene	57	1.3		mg/Kg	50	6/5/2003 6:18:09 PM
Ethylbenzene	12	1.3		mg/Kg	50	6/5/2003 6:18:09 PM
Xylenes, Total	130	1.3		mg/Kg	50	6/5/2003 6:18:09 PM
Surr: 4-Bromofluorobenzene	112	74-118		%REC	50	6/5/2003 6:18:09 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

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P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *17-Jun-03*

CLIENT:	Blagg Engineering	**Client Sample Info:**	BP - GCU #204E
Work Order:	0306008	**Client Sample ID:**	1 @ 7ft.
Project:	BP - GCU #204E Blow Pit	**Collection Date:**	6/3/2003 7:50:00 AM
Lab ID:	0306008-001A	**Matrix:**	SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C10-C28	8650	250		mg/Kg	10	6/6/2003
GASOLINE RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C6-C10	1720	180		mg/Kg	1000	6/4/2003
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DWC**
Benzene	4800	2500		µg/Kg	2500	6/12/2003
Ethylbenzene	18000	2500		µg/Kg	2500	6/12/2003
m,p-Xylene	160000	5000		µg/Kg	2500	6/12/2003
o-Xylene	37000	2500		µg/Kg	2500	6/12/2003
Toluene	85000	5000		µg/Kg	2500	6/12/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

Hall Environmental Analysis Laboratory

Date: *10-Jun-03*

CLIENT: Blagg Engineering
Lab Order: 0306025
Project: GCU #204E Blow Pit
Lab ID: 0306025-02

Client Sample ID: 2 @ 11'
Collection Date: 6/3/2003 8:00:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	6200	100		mg/Kg	20	6/10/2003 3:16:54 PM
Motor Oil Range Organics (MRO)	1600	1000		mg/Kg	20	6/10/2003 3:16:54 PM
Surr: DNOP	99.6	60-124		%REC	20	6/10/2003 3:16:54 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1800	250		mg/Kg	50	6/5/2003 6:51:21 PM
Surr: BFB	149	74-118	S	%REC	50	6/5/2003 6:51:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	4.9	1.3		mg/Kg	50	6/5/2003 6:51:21 PM
Toluene	48	1.3		mg/Kg	50	6/5/2003 6:51:21 PM
Ethylbenzene	12	1.3		mg/Kg	50	6/5/2003 6:51:21 PM
Xylenes, Total	120	1.3		mg/Kg	50	6/5/2003 6:51:21 PM
Surr: 4-Bromofluorobenzene	110	74-118		%REC	50	6/5/2003 6:51:21 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range