

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised August 1, 2011

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		WELL API NO. 3004507699 5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> 6. State Oil & Gas Lease No.
2. Name of Operator BP America Production Company		7. Lease Name or Unit Agreement Name Gallegos Canyon Unit
3. Address of Operator 200 Energy Court, Farmington, NM 87401		8. Well Number 93 - cathodic wells
4. Well Location Unit Letter <u>E</u> <u>1750</u> feet from the <u>North</u> line and <u>890</u> feet from the <u>West</u> line Section <u>36</u> Township <u>29N</u> Range <u>12W</u> NMPM County <u>San Juan</u>		9. OGRID Number
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5375' GR		10. Pool name or Wildcat N/A

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/>		SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <u>Cathodic Well</u> <u>DIST. 3</u> <input checked="" type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

One of two cathodic groundbed wells on the GCU 93 location was flowing groundwater to the surface. To stop the flow of water and prevent flow in the future both wells were plugged.
 Well 1, in the SW corner of the well location, which was not flowing water, was cut off 30 inches below grade. Cement was pumped down a 2 inch pipe, placing a cement plug from 2.5 ft to 200 ft below the surface. A plate was welded on the pipe 2.5 ft below the surface and the hole was backfilled to the surface.
 Well 2, approximately 20 ft east of Well 1 and 27 ft south of the power pole, was excavated to 7 ft below the surface where the casing was broken off. Two hundred bags of bentonite were placed over the casing, filling the hole to the surface, and the water flow was stopped.
 No surface flows have been observed since the cathodic wells were plugged. Water sampling of other wells in the area, upgradient of the GCU 93, show elevated sulfate concentrations, indicating the groundwater in this area is naturally high in sulfate.

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jeff Peace TITLE Field Environmental Advisor DATE June 12, 2013
 Type or print name Jeff Peace E-mail address: peace.jeffrey@bp.com PHONE: 326-9479
For State Use Only
 APPROVED BY: Brandt Zell TITLE Deputy Oil & Gas Inspector, District #3 DATE 6-12-13
 Conditions of Approval (if any):

BP America San Juan Basin Reclamation Plan

API # 300450769 P&A _____ New Drill _____ Other _____

Well Name: GCU 93 Meter# 52901741 BLM _____ State _____ Tribal _____

U.S. Forest Service _____ Private (FEE) _____

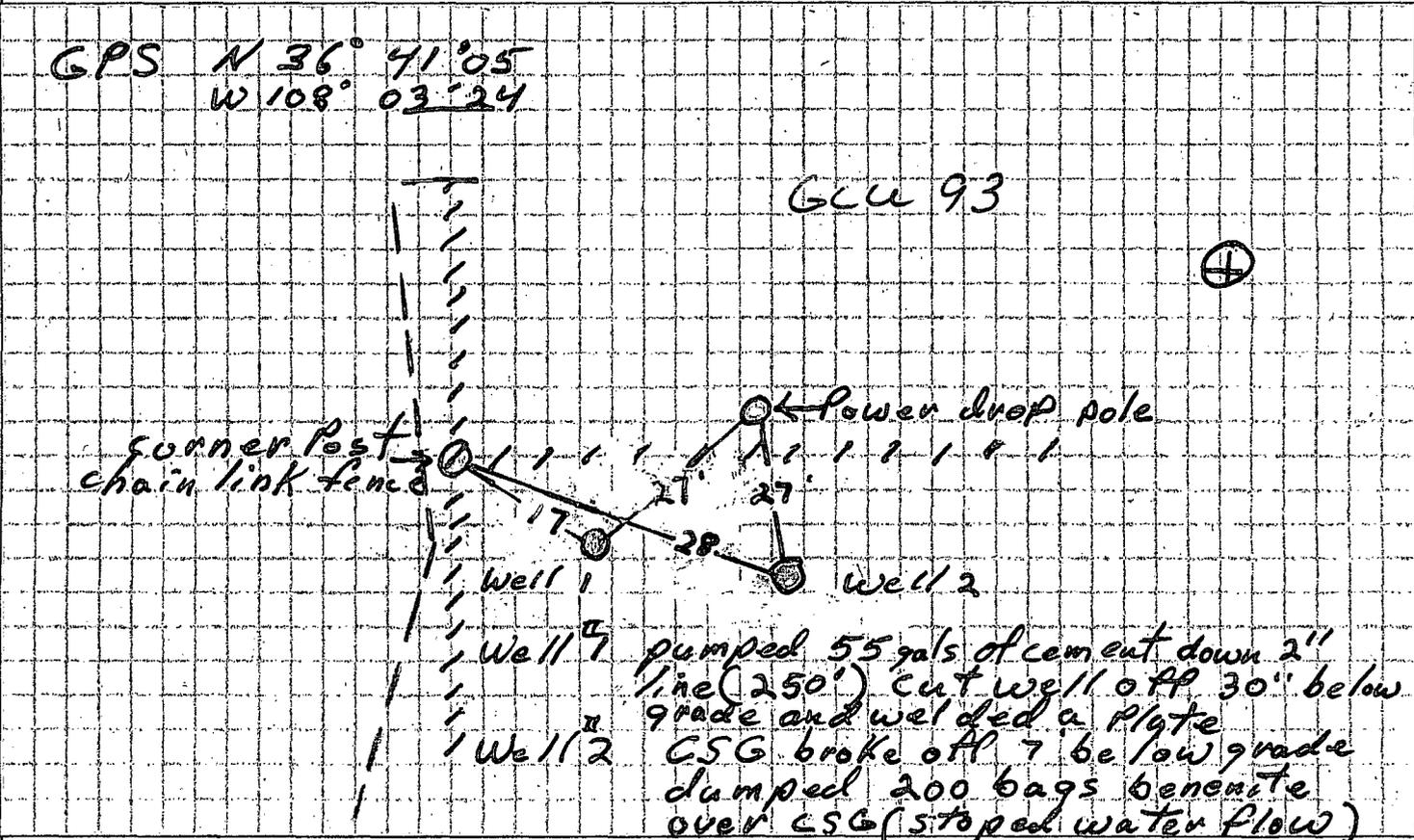
UL E Sec 36 T 29 R 12 Project P+A cathodic wells

Team Leader: _____ Area _____ Acreage including roads to be closed 9/5/12

Equipment	Y	N	Comments	Time	Parts	Type	Amount
Dozer					Seed Mix		
Trackhoe					Straw		
Backhoe					Rocks (boulders)		
Tractor					Culverts		
Implements					Other		
Other							

Total Time _____

Special Instructions	Specific Hazards



Color	Color Name	Item
	Red	Electric
	Yellow	Gas/oil/steam/chemical
	Orange	Communications/CATV
	Blue	Water

↑ North Direction

Dig Zone

○ = Power Line

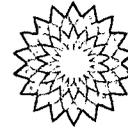
○ Power Pole

≡ Water

W Water Line

~ FL ~ Flow Line

⊕ Wellhead



**BP America Production
Company**

200 Energy Court
Farmington, NM 87401
Phone: (505) 326-9200

April 22, 2013

Mr. Brandon Powell
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

RCVD APR 22 '13
OIL CONS. DIV.
DIST. 3

Re: GCU 93 Cathodic Wells and Groundwater Summary

Dear Mr. Powell:

This letter is to notify the New Mexico Oil Conservation Division of BP America's actions to resolve possible groundwater issues at the GCU 93 site in San Juan County, New Mexico.

Water was found leaking from a cathodic well near the site, and the water was found to be high in sulfate concentration when tested. This prompted concerns that the leaking well may be impacting groundwater at the site and in the vicinity. However, subsequent testing of other monitor wells and private wells in the vicinity also showed high sulfate concentrations. These results indicate the groundwater near the GCU 93 is naturally high in sulfate and the water from the cathodic well was not impacting the groundwater. A report from Blagg Engineering that summarizes the water sampling is attached.

BP also plugged the cathodic well that was leaking water and the other cathodic well on the site. The leaking well was excavated to a depth of seven feet and sealed with bentonite that was packed to the surface. The other cathodic well was filled with cement from 200 feet to 30 feet below the surface. A cap was placed on top of the casing and the hole was backfilled to the surface. No surface water flows have been observed since the wells were plugged.

If you have any questions or concerns, please contact me at (505) 326-9479 or at peace.jeffrey@bp.com.

Sincerely,

Jeff Peace, P. E.
Field Environmental Advisor

BLAGG ENGINEERING, INC.

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

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

April 18, 2013

Mr. Jeffrey Peace, P.E.
BP America Production Co.
200 Energy Ct.
Farmington, New Mexico 87401

Re: GCU 93 – Groundwater Sampling
(E) Sec. 36 – T29N – R12W
San Juan County, New Mexico

Dear Mr. Peace:

Pursuant to BP's request, Blagg Engineering, Inc. (BEI) collected groundwater samples from various groundwater monitor wells, private domestic irrigation wells and the plugged cathodic protection well adjacent to the GCU 93 wellsite. The samples were collected to compare the sulfate concentration of groundwater at the cathodic well to other groundwaters in the immediate area. Attached is a site diagram and Google Earth® overhead view of the area indicating the locations of the various sample points. Additionally, supporting laboratory test results are attached.

In summary, prior to plugging the cathodic protection well water seeping to the surface surrounding the well tested sulfate at 1,700 parts per million (ppm). After plugging the well no additional surface water seepage has been detected. There are two (2) groundwater monitor wells located just west of the cathodic location and these wells have tested sulfate at concentrations ranging between 910 ppm – 1,400 ppm. Additionally, there are two (2) private domestic irrigation wells located southeast of the cathodic location and these wells have tested sulfate at concentrations ranging between 500 ppm – 1,200 ppm. Although the prior cathodic well seepage tested sulfate at a slightly higher sulfate concentration than the surrounding groundwaters, the sulfate value was not significantly different from the area normal. The New Mexico Water Quality Control Commission regulations list the maximum allowable sulfate level for human drinking water at 600 ppm and the natural area

groundwater exceeds this limit.

Based on these values, BEI is of the opinion that the naturally occurring sulfate levels around the GCU 93 wellsite exceed drinking water standards and the sulfate level previously seeping from the cathodic protection well did not significantly exceed the area normal. Additionally, the cathodic well has been plugged and there is no indication of ongoing seepage.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199. BEI appreciates the opportunity to provide services to BP.

Respectfully submitted:

Blagg Engineering, Inc.

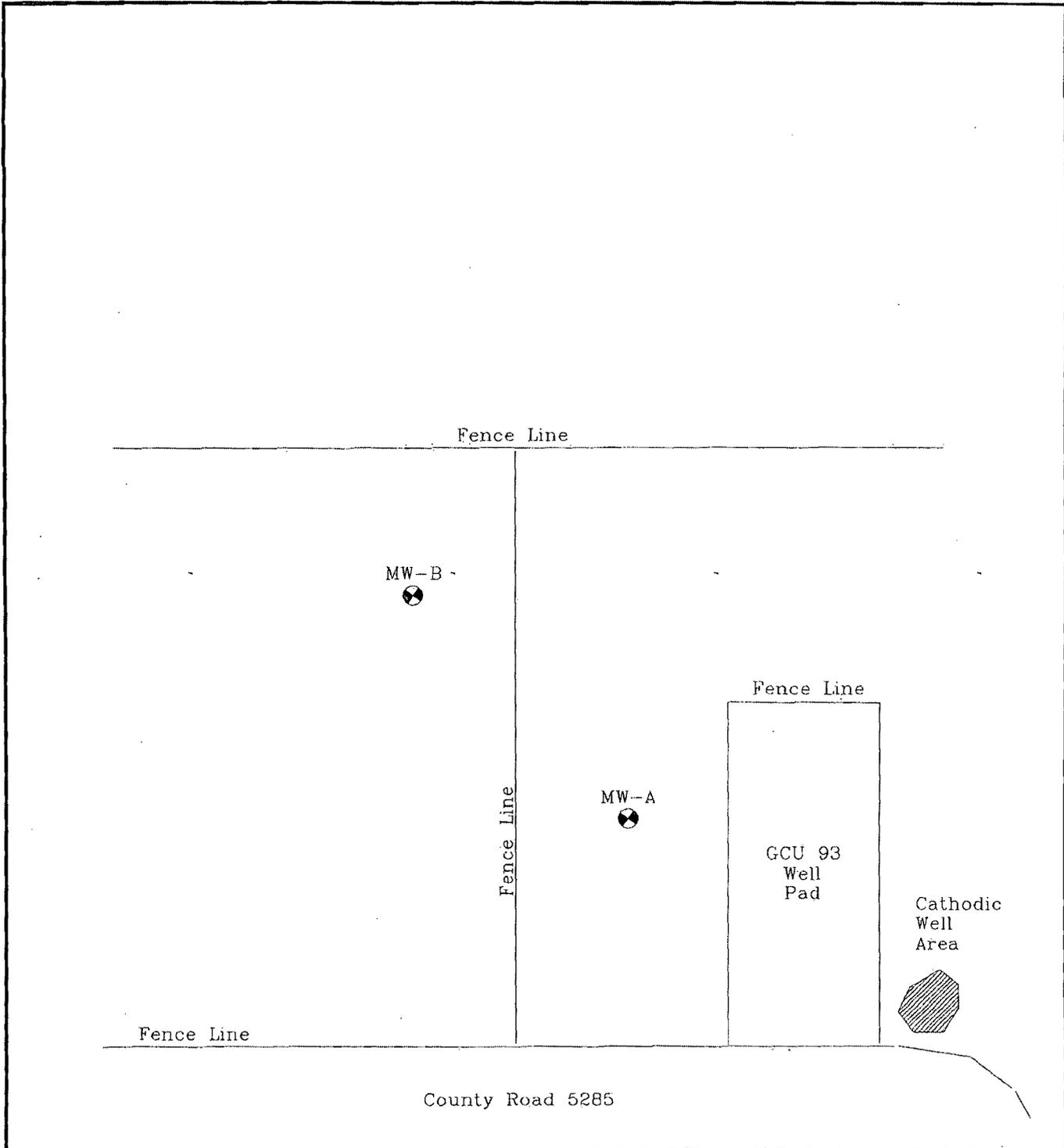
Jeffrey C Blagg  Digitally signed by Jeffrey C Blagg
DN: cn=Jeffrey C Blagg,
email=jcblagg@aol.com, o=Blagg Engineering
Inc, c=US
Date: 2013.04.18 06:53:21 -0600

Jeffrey C. Blagg, P.E.

President

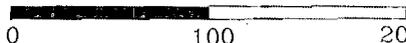
Attachments: Site Diagrams and Overhead View.

Laboratory Test Reports



LEGEND


 Groundwater Monitor Well


 0 100 200 Feet

SITE FIGURE BP ** GCU 93 ** (E)36-T29N-R12W			BLAGG ENGINEERING, INC.
DATE: 08/2012	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199



MW-B

GCU 93 Cathodic Well

MW-A

Private Irrigation Wells

©2012 Google

Google earth

Imagery Date: 6/10/2011 1997

36°41'02.14" N 108°03'17.71" W elev 5393 ft

Eye alt: 7637 ft



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 24, 2012

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX

RE: GCU 93

OrderNo.: 1202508

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/15/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Surface Water @
Cathodic Well

Analytical Report
Lab Order 1202508
Date Reported: 2/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Surface Well

Project: GCU 93

Collection Date: 2/14/2012 11:50:00 AM

Lab ID: 1202508-001

Matrix: AQUEOUS

Received Date: 2/15/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.97	0.10		mg/L	1	2/15/2012 2:55:25 PM
Chloride	12	0.50		mg/L	1	2/15/2012 2:55:25 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/15/2012 2:55:25 PM
Bromide	ND	0.10		mg/L	1	2/15/2012 2:55:25 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/15/2012 2:55:25 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	2/15/2012 3:06:38 PM
Sulfate	1,700	25		mg/L	50	2/20/2012 2:44:36 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	440	5.0		mg/L	5	2/16/2012 9:09:52 AM
Magnesium	13	1.0		mg/L	1	2/16/2012 8:40:09 AM
Potassium	5.0	1.0		mg/L	1	2/16/2012 8:40:09 AM
Sodium	400	5.0		mg/L	5	2/16/2012 9:09:52 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JLF
Conductivity	3,100	0.010		µmhos/cm	1	2/16/2012 11:48:51 AM
SM2320B: ALKALINITY						Analyst: JLF
Bicarbonate (As CaCO ₃)	280	20		mg/L CaCO ₃	1	2/16/2012 11:48:51 AM
Carbonate (As CaCO ₃)	ND	2.0		mg/L CaCO ₃	1	2/16/2012 11:48:51 AM
Total Alkalinity (as CaCO ₃)	280	20		mg/L CaCO ₃	1	2/16/2012 11:48:51 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2,770	20.0		mg/L	1	2/20/2012 1:25:00 PM

Qualifiers: * / X Value exceeds Maximum Contaminant Level. B Analyte detected in the associated Method Blank
 E Value above quantitation range H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits RL Reporting Detection Limit
 S Spike Recovery outside accepted recovery limits

Groundwater
Monitor Well on
Well Pad

Analytical Report
Lab Order 1202508
Date Reported: 2/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 93
Lab ID: 1202508-002

Matrix: AQUEOUS

Client Sample ID: Monitor Well
Collection Date: 2/14/2012 12:20:00 PM
Received Date: 2/15/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.42	0.10		mg/L	1	2/15/2012 3:17:53 PM
Chloride	39	10		mg/L	20	2/15/2012 3:29:07 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/15/2012 3:17:53 PM
Bromide	0.28	0.10		mg/L	1	2/15/2012 3:17:53 PM
Nitrogen, Nitrate (As N)	2.3	0.10		mg/L	1	2/15/2012 3:17:53 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	2/15/2012 3:17:53 PM
Sulfate	1,100	25		mg/L	50	2/17/2012 5:42:16 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	380	5.0		mg/L	5	2/16/2012 9:16:12 AM
Magnesium	35	1.0		mg/L	1	2/16/2012 8:47:07 AM
Potassium	2.1	1.0		mg/L	1	2/16/2012 8:47:07 AM
Sodium	220	5.0		mg/L	5	2/16/2012 9:16:12 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JLF
Conductivity	2,400	0.010		µmhos/cm	1	2/16/2012 12:02:34 PM
SM2320B: ALKALINITY						Analyst: JLF
Bicarbonate (As CaCO3)	380	20		mg/L CaCO3	1	2/16/2012 12:02:34 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	2/16/2012 12:02:34 PM
Total Alkalinity (as CaCO3)	380	20		mg/L CaCO3	1	2/16/2012 12:02:34 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1,980	100		mg/L	1	2/20/2012 1:25:00 PM

Qualifiers:	*X Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC. -
BP AMERICA
 Mailing Address: P.O. Box 97
BLOOMFIELD 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 BY 2-20-12
 Project Name:
GCU 93
 Project #:
 Project Manager:
JEFF BLAGG
 Sampler: JEFF BLAGG
 On Ice: Yes No
 Sample Temperature: 19



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

BTEX + MTBE + TMB's (8021)	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)	CATION/ANION BALANCE	APEA	Air Bubbles (Y or N)
											X		
											X		

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No
<u>2/14/12</u>	<u>1150</u>	<u>Water</u>	<u>SURFACE WATER</u>	<u>500 PVC</u>	<u>COOL</u>	<u>- 1</u>
<u>"</u>	<u>1220</u>	<u>"</u>	<u>MONITOR Well</u>	<u>"</u>	<u>COOL</u>	<u>- 2</u>

Date: 2/14/12 Time: 1326 Relinquished by: JH Blagg
 Received by: Christie Weiler Date: 2/14/12 Time: 1326
 Date: 2/14/12 Time: 1600 Relinquished by: Christie Weiler
 Received by: [Signature] Date: 2/15/12 Time: 1000

Remarks:
WU: N 1553913
PATKEY: ZPEACJDEUV
BP CONTACT: Jeff Peerce
per JB Cation/Anion Balance only at 2/15/12

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 noted on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 24, 2012

Jeff Blagg

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 320-1183

FAX

RE: GCU 93

OrderNo.: 1202508

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/15/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Chain-of-Custody Record

Client: **BLAGG ENGINEERING INC.**
BP AMERICA
 Mailing Address: **P.O. Box 97**
BLOOMFIELD 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 **BY 2-20-12**
 Project Name:
GCU 93
 Project #:
 Project Manager:
JEFF BLAGG
 Sampler: **JEFF BLAGG**
 Office: Yes No
 Sample Temperature: **19°C**



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	HEALING	BTEX + MTBE + TMB's (8021)	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)	CATION/ANION BALANCE	APEAT	Air Bubbles (Y or N)
3/14/12	1150	Water	SURFACE WATER	500 PVC	COOL	- 1												X		
"	1220	"	MONITOR WELL	"	COOL	- 2												X		

Date: 3/14/12 Time: 1326 Relinquished by: **Jeff Blagg** Received by: **Christie Weejen** Date: 3/14/12 Time: 1326
 Date: 2/14/12 Time: 1600 Relinquished by: **Christie Weejen** Received by: **Christie Weejen** Date: 2/15/12 Time: 1000

Remarks:
 WO: N 1553913
 PATKEY: ZPEACJDEUV
 BP contact: Jeff Peace
 AS JB CATION/ANION Balance only AT 2/15/12

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This carries no notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

Surface Water @
Cathodic Well

Analytical Report
Lab Order 1202508
Date Reported: 2/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Surface Well

Project: GCU 93

Collection Date: 2/14/2012 11:50:00 AM

Lab ID: 1202508-001

Matrix: AQUEOUS

Received Date: 2/15/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.97	0.10		mg/L	1	2/15/2012 2:55:25 PM
Chloride	12	0.50		mg/L	1	2/15/2012 2:55:25 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/15/2012 2:55:25 PM
Bromide	ND	0.10		mg/L	1	2/15/2012 2:55:25 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/15/2012 2:55:25 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	2/15/2012 3:06:38 PM
Sulfate	1,700	25		mg/L	50	2/20/2012 2:44:36 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	440	5.0		mg/L	5	2/16/2012 9:09:52 AM
Magnesium	13	1.0		mg/L	1	2/16/2012 8:40:09 AM
Potassium	5.0	1.0		mg/L	1	2/16/2012 8:40:09 AM
Sodium	400	5.0		mg/L	5	2/16/2012 9:09:52 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JLF
Conductivity	3,100	0.010		µmhos/cm	1	2/16/2012 11:48:51 AM
SM2320B: ALKALINITY						Analyst: JLF
Bicarbonate (As CaCO3)	280	20		mg/L CaCO3	1	2/16/2012 11:48:51 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	2/16/2012 11:48:51 AM
Total Alkalinity (as CaCO3)	280	20		mg/L CaCO3	1	2/16/2012 11:48:51 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2,770	20.0		mg/L	1	2/20/2012 1:25:00 PM

Qualifiers:

- *X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Groundwater
Monitor Well on
Well Pad

Analytical Report
Lab Order 1202508
Date Reported: 2/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 93
Lab ID: 1202508-002

Client Sample ID: Monitor Well
Collection Date: 2/14/2012 12:20:00 PM
Received Date: 2/15/2012 10:00:00 AM

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.42	0.10		mg/L	1	2/15/2012 3:17:53 PM
Chloride	39	10		mg/L	20	2/15/2012 3:29:07 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	2/15/2012 3:17:53 PM
Bromide	0.28	0.10		mg/L	1	2/15/2012 3:17:53 PM
Nitrogen, Nitrate (As N)	2.3	0.10		mg/L	1	2/15/2012 3:17:53 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	2/15/2012 3:17:53 PM
Sulfate	1,100	25		mg/L	50	2/17/2012 5:42:16 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	380	5.0		mg/L	5	2/16/2012 9:16:12 AM
Magnesium	35	1.0		mg/L	1	2/16/2012 8:47:07 AM
Potassium	2.1	1.0		mg/L	1	2/16/2012 8:47:07 AM
Sodium	220	5.0		mg/L	5	2/16/2012 9:16:12 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JLF
Conductivity	2,400	0.010		µmhos/cm	1	2/16/2012 12:02:34 PM
SM2320B: ALKALINITY						Analyst: JLF
Bicarbonate (As CaCO3)	380	20		mg/L CaCO3	1	2/16/2012 12:02:34 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	2/16/2012 12:02:34 PM
Total Alkalinity (as CaCO3)	380	20		mg/L CaCO3	1	2/16/2012 12:02:34 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1,980	100		mg/L	1	2/20/2012 1:25:00 PM

Qualifiers:	*X Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 28, 2012

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU 93

OrderNo.: 1211399

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/9/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW-A

Project: GCU 93

Collection Date: 11/8/2012 12:04:00 PM

Lab ID: 1211399-001

Matrix: AQUEOUS

Received Date: 11/9/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.40	0.10		mg/L	1	11/9/2012 3:08:51 PM
Chloride	43	10		mg/L	20	11/16/2012 12:39:15 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/9/2012 3:08:51 PM
Bromide	0.44	0.10		mg/L	1	11/9/2012 3:08:51 PM
Nitrogen, Nitrate (As N)	1.6	0.10		mg/L	1	11/9/2012 3:08:51 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/9/2012 3:08:51 PM
Sulfate	1400	25		mg/L	50	11/16/2012 12:51:40 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Calcium	380	10		mg/L	10	11/9/2012 7:55:53 PM
Magnesium	44	1.0		mg/L	1	11/9/2012 7:50:22 PM
Potassium	2.2	1.0		mg/L	1	11/9/2012 7:50:22 PM
Sodium	370	10		mg/L	10	11/16/2012 5:11:20 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	3100	0.010		µmhos/cm	1	11/9/2012 4:39:56 PM
SM4500-H+B: PH						Analyst: JML
pH	7.33	1.68	H	pH units	1	11/13/2012 1:17:34 PM
SM2320B: ALKALINITY						Analyst: JML
Bicarbonate (As CaCO ₃)	500	20		mg/L CaCO ₃	1	11/9/2012 4:39:56 PM
Carbonate (As CaCO ₃)	ND	2.0		mg/L CaCO ₃	1	11/9/2012 4:39:56 PM
Total Alkalinity (as CaCO ₃)	500	20		mg/L CaCO ₃	1	11/9/2012 4:39:56 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: JML
Total Dissolved Solids	2550	40.0		mg/L	1	11/15/2012 12:29:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1211399

Date Reported: 11/28/2012

CLIENT: Blagg Engineering

Client Sample ID: Sedillo Well

Project: GCU 93

Collection Date: 11/8/2012 12:30:00 PM

Lab ID: 1211399-002

Matrix: AQUEOUS

Received Date: 11/9/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.45	0.10		mg/L	1	11/9/2012 3:58:30 PM
Chloride	48	10		mg/L	20	11/9/2012 4:10:55 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/9/2012 3:58:30 PM
Bromide	0.54	0.10		mg/L	1	11/9/2012 3:58:30 PM
Nitrogen, Nitrate (As N)	4.4	0.10		mg/L	1	11/9/2012 3:58:30 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/9/2012 3:58:30 PM
Sulfate	1200	25		mg/L	50	11/13/2012 11:10:08 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Calcium	360	10		mg/L	10	11/9/2012 8:14:27 PM
Magnesium	34	1.0		mg/L	1	11/9/2012 7:59:38 PM
Potassium	1.8	1.0		mg/L	1	11/9/2012 7:59:38 PM
Sodium	200	10		mg/L	10	11/9/2012 8:14:27 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	2400	0.010		µmhos/cm	1	11/9/2012 5:00:13 PM
SM4500-H+B: PH						Analyst: JML
pH	7.56	1.68	H	pH units	1	11/13/2012 1:22:03 PM
SM2320B: ALKALINITY						Analyst: JML
Bicarbonate (As CaCO3)	180	20		mg/L CaCO3	1	11/9/2012 5:00:13 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	11/9/2012 5:00:13 PM
Total Alkalinity (as CaCO3)	180	20		mg/L CaCO3	1	11/9/2012 5:00:13 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: JML
Total Dissolved Solids	1970	20.0		mg/L	1	11/15/2012 12:29:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 18, 2013

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU 93

OrderNo.: 1301335

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/10/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1301335
 Date Reported: 1/18/2013

CLIENT: Blagg Engineering
Project: GCU 93
Lab ID: 1301335-001

Matrix: AQUEOUS

Client Sample ID: Sedillo Well #1
Collection Date: 1/9/2013 12:35:00 PM
Received Date: 1/10/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.28	0.10		mg/L	1	1/10/2013 6:54:09 PM
Chloride	50	10		mg/L	20	1/10/2013 7:31:22 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/10/2013 6:54:09 PM
Bromide	0.30	0.10		mg/L	1	1/10/2013 6:54:09 PM
Nitrogen, Nitrate (As N)	3.7	0.10		mg/L	1	1/10/2013 6:54:09 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	1/10/2013 7:31:22 PM
Sulfate	720	10		mg/L	20	1/10/2013 7:31:22 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	280	5.0		mg/L	5	1/14/2013 10:39:46 AM
Magnesium	36	1.0		mg/L	1	1/14/2013 10:37:08 AM
Potassium	2.0	1.0		mg/L	1	1/14/2013 10:37:08 AM
Sodium	71	1.0		mg/L	1	1/14/2013 10:37:08 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	1800	0.010		µmhos/cm	1	1/11/2013 11:24:24 AM
SM4500-H+B: PH						Analyst: JML
pH	7.45	1.68	H	pH units	1	1/11/2013 11:24:24 AM
SM2320B: ALKALINITY						Analyst: JML
Bicarbonate (As CaCO3)	210	20		mg/L CaCO3	1	1/11/2013 11:24:24 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	1/11/2013 11:24:24 AM
Total Alkalinity (as CaCO3)	210	20		mg/L CaCO3	1	1/11/2013 11:24:24 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1370	20.0		mg/L	1	1/17/2013 8:55:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1301335
 Date Reported: 1/18/2013

CLIENT: Blagg Engineering

Client Sample ID: Sedillo Well #2

Project: GCU 93

Collection Date: 1/9/2013 1:10:00 PM

Lab ID: 1301335-002

Matrix: AQUEOUS

Received Date: 1/10/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.50	0.10		mg/L	1	1/10/2013 7:43:47 PM
Chloride	31	10		mg/L	20	1/10/2013 7:56:11 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/10/2013 7:43:47 PM
Bromide	0.19	0.10		mg/L	1	1/10/2013 7:43:47 PM
Nitrogen, Nitrate (As N)	7.2	0.10		mg/L	1	1/10/2013 7:43:47 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	1/10/2013 7:56:11 PM
Sulfate	500	10		mg/L	20	1/10/2013 7:56:11 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	230	5.0		mg/L	5	1/14/2013 10:44:47 AM
Magnesium	16	1.0		mg/L	1	1/14/2013 10:42:13 AM
Potassium	2.5	1.0		mg/L	1	1/14/2013 10:42:13 AM
Sodium	82	1.0		mg/L	1	1/14/2013 10:42:13 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	1400	0.010		µmhos/cm	1	1/11/2013 11:41:28 AM
SM4500-H+B: PH						Analyst: JML
pH	7.57	1.68	H	pH units	1	1/11/2013 11:41:28 AM
SM2320B: ALKALINITY						Analyst: JML
Bicarbonate (As CaCO3)	190	20		mg/L CaCO3	1	1/11/2013 11:41:28 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	1/11/2013 11:41:28 AM
Total Alkalinity (as CaCO3)	190	20		mg/L CaCO3	1	1/11/2013 11:41:28 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1060	20.0		mg/L	1	1/17/2013 8:55:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1301335

Date Reported: 1/18/2013

CLIENT: Blagg Engineering

Client Sample ID: MW-B

Project: GCU 93

Collection Date: 1/9/2013 1:40:00 PM

Lab ID: 1301335-003

Matrix: AQUEOUS

Received Date: 1/10/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.47	0.10		mg/L	1	1/10/2013 8:33:25 PM
Chloride	22	10		mg/L	20	1/10/2013 8:45:49 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	1/10/2013 8:33:25 PM
Bromide	0.13	0.10		mg/L	1	1/10/2013 8:33:25 PM
Nitrogen, Nitrate (As N)	2.2	0.10		mg/L	1	1/10/2013 8:33:25 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	1/10/2013 8:45:49 PM
Sulfate	910	10		mg/L	20	1/10/2013 8:45:49 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: ELS
Calcium	350	5.0		mg/L	5	1/14/2013 10:49:57 AM
Magnesium	31	1.0		mg/L	1	1/14/2013 10:47:19 AM
Potassium	1.8	1.0		mg/L	1	1/14/2013 10:47:19 AM
Sodium	190	5.0		mg/L	5	1/14/2013 10:49:57 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	2200	0.010		µmhos/cm	1	1/11/2013 11:57:18 AM
SM4500-H+B: PH						Analyst: JML
pH	7.41	1.68	H	pH units	1	1/11/2013 11:57:18 AM
SM2320B: ALKALINITY						Analyst: JML
Bicarbonate (As CaCO3)	370	20		mg/L CaCO3	1	1/11/2013 11:57:18 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	1/11/2013 11:57:18 AM
Total Alkalinity (as CaCO3)	370	20		mg/L CaCO3	1	1/11/2013 11:57:18 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1670	40.0		mg/L	1	1/17/2013 8:55:00 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits