# 3R - <u>405</u>

# REPORTS

# DATE: Aug. 31, 2006

### 3R0405

#### BLAGG ENGINEERING INC.

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

September 20, 2006

Mr. Glenn von Gonten, Hydrologist	2005
New Mexico Oil Conservation Division	SE
1220 South St. Francis Drive	
Santa Fe, New Mexico 87505	25
Re: BP America Production Company	
Transmittal of Remediation and Monitoring Report Chavez GC A 1	<u>هــــ</u>
(G) Sec. 3 – T29N – R9W, San Juan County, NM	сц С

Dear Mr. von Gonten:

On behalf of BP America Production Company, Blagg Engineering, Inc. (BEI) is submitting the attached remediation and monitoring report for the Chavez GC A 1 pursuant to the site groundwater management plan.

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

Respectfully: *Blagg Engineering, Inc.* 

ly C. Blagg

Jeffrey C. Blagg, P.E. President

cc: Brandon Powell - NMOCD Aztec Kevin Hansford - BP SJ Op. Ctr. Steve Chavez – Fee Surface Owner

File: rpt.xmt.wpd

### 3R0405

#### REMEDIATION AND MONITORING REPORT

#### BP AMERICA PRODUCTION CO. CHAVEZ GC A #1

#### (G) SEC. 3 – T29N – R9W, NMPM SAN JUAN COUNTY, NEW MEXICO

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

PREPARED BY: BLAGG ENGINEERING, INC. CONSULTING ENGINEERS P.O. BOX 87 BLOOMFIELD, NM 87413 (505)632-1199

AUGUST 31, 2006

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#### REMEDIATION AND MONITORING REPORT BP AMERICA PRODUCTION CO CHAVEZ GC A #1

#### Introduction and Executive Summary

The Chavez GC A #1 well is located on fee surface in rural San Juan County, New Mexico. During site equipment modifications on February 13, 2006 groundwater with potential hydrocarbon impacts was encountered at a depth of approximately 9 feet below surface grade. Removal of hydrocarbon contaminated soils began immediately and approximately  $14,000 \pm$  cubic yards of soil was removed to mitigate potential groundwater contamination (Figure 1). The area was backfilled with clean imported soil.

Following abatement of soil impacts, four (4) groundwater monitor wells were installed to monitor water quality. Test results indicate that limited residual groundwater impacts are present at the site, but did not extend immediately down-gradient from the remedial excavation. Based on this data quarterly well sampling is indicated pursuant to the groundwater management plan.

During remedial activities other potential impact sources were investigated using a backhoe. These investigations were at specific spots suggested by the fee landowner who had extensive historical knowledge of the well, initially drilled in 1951. Soil impacts extending to the water table interface were found in the area immediately west of the well head. Due to the onset of flood irrigation activities directly adjacent to this area it was determined to postponed excavation of these impacts until late fall of 2006 when the water table is expected to recede, thus improving access to soil impacts within the vadose zone above the groundwater interface.

#### **Abatement of Soil Impacts**

The Chavez GC A #1 is immediately adjacent to agricultural land planted with alfalfa and other crops. The ground surface is relatively flat with a minor down slope towards the north-north west, with the San Juan River at approximately ¼ mile away in this direction. An unlined irrigation ditch flowing towards the southwest runs through the well location.

Site investigation and abatement was conducted concurrently between February 13 – May 26, 2006 using excavation equipment to remove all apparent impacted soils to the water table interface, beginning from the ground surface and extending to below the water table (see appendix: Pit Closure Field Report). The soil at the site is primarily a dark brown, cohesive silty clayey sand, with

Blagg Engineering, Inc. Consulting Engineers hydrocarbon impacted soils stained light gray to dark gray. Groundwater was found at a depth of  $9 \pm$  feet below the ground surface. The impacted soils were transported to the NMOCD permitted BP Crouch Mesa Landfarm for remediation.

During excavations, soil samples were collected from above the water table interface for laboratory testing of total petroleum hydrocarbons (Method 8015B), volatile organics (Method 8021B) and chloride (Method 9056A) to confirm closure standards were achieved at the excavation perimeter. Lab test reports are included in the appendices.

#### Monitor Well Installation and Water Quality Test Results

Four (4) groundwater monitoring wells were installed on July 31, 2006 for water quality testing and to determine gradient. A hollow stem auger drill rig was used to advance borings to depths ranging between 15 - 17 feet below surface grade and set 2-inch diameter slotted screen with filter pack and a bentonite seal (Figures 3 - 6).

Following development, the wells were sampled on August 12, 2006 for testing of volatile organics by U.S. EPA Method 8021B (BTEX) and for cation/anion balance. Samples were placed in laboratory supplied containers, stored in an ice chest with ice and express delivered to the laboratory for testing. BTEX samples were tested by Hall Environmental Labs in Albuquerque and the cation/anion samples were tested by Envirotech Labs in Farmington. Analytical results indicate that west side perimeter monitor well MW #3 has benzene impacts (22 ug/L) that exceed New Mexico Water Quality Control Commission (NMWQCC) groundwater standards. The other monitor wells tested contaminates at below NMWQCC standards. The laboratory data is summarized in Table 1 and laboratory test reports are included in the appendices.

Review of cation/anion balance test results indicates the up-gradient well MW #1 and source area well MW #2 have higher total dissolved solids than side-gradient well MW #3 and down-gradient well MW #4. The proximity of the irrigation ditch to wells MW #3 and #4, likely contributing to fresh water infiltration to the water table, may account for this. The test results are summarized in Table 2. Laboratory reports are included in the appendices.

The measured groundwater depth during the August 12, 2006 sample event indicates a water table type aquifer with a north gradient at a relatively flat slope of approximately 0.0014 feet/foot (Figure 2). Future measurements could indicate seasonal shifts in groundwater flow direction and additional gradient measurements are suggested prior to determining locations for any supplementary monitoring points.

#### **Recommendations for Further Action**

Additional abatement of soil impacts is necessary in the area immediately west of the well head. Due to the presently ongoing irrigation season resulting in a high water table, removal of contaminated soils in this area is scheduled to commence in late fall of 2006 following the termination of crop irrigation activities.

Initial monitoring of groundwater impacts indicates that hydrocarbon contamination in excess of NMWQCC standards is present at the site. These impacts appear to be minimal and limited to one well (MW #3) at the western extent of remedial activities. BEI recommends quarterly monitoring of water quality to quantify natural degradation and to identify shifts in groundwater flow patterns. Additional groundwater monitoring points will be necessary following removal of remaining impacted soils, as described above. These points should be placed both within and down-gradient of this source area to monitor water quality.

#### **Limitations and Closure**

The scope of BEI's services has been limited to site sampling and reporting. Work has been performed in accordance with generally accepted practices in environmental engineering and hydrogeology.

This report has been prepared for the exclusive use of BP America Production Company as it pertains to the Chavez GC A #1 well, located in the SW/4 of the NE/4 of Section 3, Township 29N, Range 9W, NMPM, San Juan County, New Mexico.

I certify that I am personally familiar with the investigative work at the site, site conditions and information as reported in this document.

Respectively Submitted: Blagg Engineering, Inc.

7 C. Blogg

Jeffrey C. Blagg, NMPE 11607 President

Blagg Engineering, Inc. Consulting Engineers

### FIGURES

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#### BP AMERICA PRODUCTION CO. GROUNDWATER LAB RESULTS SUBMITTED BY BLAGG ENGINEERING, INC.

Chavez GC A #1 UNIT G, SEC. 3, T29N, R9W

REVISED DATE: Sept. 6, 2006 FILENAME: (CHA-3Q06.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	pН	PRODUCT	Benzene	Toluene	Ethyl Benzene	Total Xylene
12-Aug-06	MVV #1	13.86	19.50	1,670	2,100	7.74		ND	ND	ND	ND
12-Aug-06	MW #2	11.45	18.00	2,070	2,700	7.60		ND	50	220	88.00
12-Aug-06	MW #3	10.90	19.00	760	1,200	7.05		22	ND	39	420
12-Aug-06	MW #4	9.70	16.00	528	900	7.16		ND	ND	ND	5.3
		NMW	QCC GI	ROUNDV	VATER S	TAND	ARDS	10	750	750	620

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

2) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PROCEEDING RESULTS EXCEEDED.

#### GENERAL WATER QUALITY

BP AMERICA PRODUCTION COMPANY

#### CHAVEZ GC A #1

Sample Date : August 7, 2006

PARAMETERS	MW # 1	MW # 2	MW # 3	MW # 4	Units
LAВ pH	7.78	7.78	7.19	7.29	S. U.
LAB CONDUCTIVITY @ 25 C	2,340	3,020	1,140	836	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	1,670	2,070	760	528	mg/L
TOTAL DISSOLVED SOLIDS (Calc)	1,680	1,950	750	530	mg/L
SODIUM ABSORPTION RATIO	16.3	10.4	3.8	1.3	ratio
TOTAL ALKALINITY AS CaCO3	520	890	416	420	mg / L
TOTAL HARDNESS AS CaCO3	172	432	285	332	mg/L
BICARBONATE as HCO3	520	890	416	420	mg / L
CARBONATE AS CO3	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
HYDROXIDE AS OH	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
NITRATE NITROGEN	< 0.01	< 0.01	< 0.01	< 0.01	mg/L
NITRITE NITROGEN	< 0.01	< 0.01	< 0.01	< 0.01	mg / L
CHLORIDE	9.60	40.1	16.4	18.6	mg / L
FLUORIDE	0.78	3.44	0.73	0.46	mg/L
PHOSPHATE	0.72	< 0.1	< 0.1	< 0.1	mg/L
SULFATE	780	692	230	75.0	mg / L
IRON	0.028	< 0.01	0.7	0.245	mg/L
CALCIUM	68.0	168	83	115	mg/L
MAGNESIUM	0.48	2.81	18.5	10.70	mg/L
POTASSIUM	12.8	0.68	2.10	3.94	mg/L
SODIUM	490	498	146	52.3	mg / L
CATION / ANION DIFFERENCE	0.09	0.04	0.24	0.01	

#### BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

#### CLIENT: BP AMERICA PROD. CO.

#### CHAIN-OF-CUSTODY #: N / A & 14668

CHAVEZ GC A #1

LABORATORY (S) USED : HALL ENVIRONMENTAL

ENVIROTECH, INC.

JCB

*Date* : August 7, 2006

UNIT G, SEC. 3, T29N, R9W

SAMPLER : N J V

**PROJECT MANAGER :** 

*Filename* : 08-07-06.WK4

							-		
WELL	WELL	WATER	DEPTH TO	TOTAL	SAMPLING	pН	CONDUCT	TEMP.	VOLUME
#	ELEV.	ELEV.	WATER	DEPTH	TIME		(umhos)	(celcius)	PURGED
	(ft)	(ft)	(ft)	(ft)		· · · ·			(gal.)
MW - 1	105.41	91.55	13.86	19.50	1130	7.74	2,100	23.9	2.75
MW - 2	102.98	91.53	11.45	18.00	1315	7.60	2,700	23.9	3.25
MW - 3	102.25	91.35	10.90	19.00	1205	7.05	1,200	21.1	4.00
MW - 4	101.28	91.58	9.70	16.00	1245	7.16	900	22.6	3.25
INSTRUMENT CALIBRATIONS =					7.00	2,800			
DATE & TIME =							0830		

NOTES: <u>Volume of water purged from well prior to sampling</u>:  $V = pi X r^2 X h X 7.48 gal./ft3) X 3 (wellbores).$ (i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MW's, slight HC odor detected physically in MW #2. Collected BTEX & major anions / cations from all MW's. Surveyed MW tops on 8/7/06.

Top of casing MW #1 ~ 2.90 ft., MW #2 ~ 2.50 ft., MW #3 ~ 2.50 ft., MW #4 ~ 2.60 ft. above grade.

### APPENDICES

CLIENT:	Blagg Engineering				Lab Orde	er: 0608109
Project:	Chavez GC A #1		·			
Lab ID:	0608109-01		······	Collection I	Date: 8/7/20	06 11:30:00 AM
Client Sample	<b>ID:</b> MW #1			Ma	trix: AQUE	OUS
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES					Analyst: NSE
Benzene		ND	1.0	μg/L	1	8/12/2006 4:31:35 AM
Toluene		ND	1.0	µg/L	1	8/12/2006 4:31:35 AM
Ethylbenzene		ND	1.0	µg/L	1	8/12/2006 4:31:35 AM
Xylenes, Total		ND	3.0	µg/L	1	8/12/2006 4:31:35 AM
Surr: 4-Brom	ofluorobenzene	92.2	72.2-125	%REC	1	8/12/2006 4:31:35 AM
Lab ID:	0608109-02			Collection I	Date: 8/7/200	06 1:15:00 PM
Client Sample	ID: MW #2			OUS		
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES					Analyst: NSE
Benzene		ND	10	µg/L	10	8/14/2006 2:17:50 PM
Toluene		50	10	µg/L	10	8/14/2006 2:17:50 PM
Ethylbenzene		220	10	µg/L	10	8/14/2006 2:17:50 PM
Xylenes, Total		88	3.0	µg/L	1	8/12/2006 5:03:04 AM
Surr: 4-Brom	ofluorobenzene	90.7	72.2-125	%REC	10	8/14/2006 2:17:50 PM
Lab ID:	0608109-03			Collection I	Date: 8/7/200	06 12:05:00 PM
Client Sample	ID: MW #3			Ma	trix: AQUE	OUS
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES					Analyst: NSE
Benzene		22	1.0	μg/L	1	8/12/2006 5:32:01 AM
Toluene		ND	1.0	µg/L	1	8/12/2006 5:32:01 AM
Ethylbenzene		39	1.0	µg/L	1	8/12/2006 5:32:01 AM
Xylenes, Total		420	30	µg/L	10	8/14/2006 3:21:13 PM
0 ··· / D ····	officershappens	00.2	72 2-125	N/ PEC	4	0/40/0000 5:00:04 444

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Aug-06

\* Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits S

Spike Recovery outside accepted recovery limits

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

CLIENT: Project:	Blagg Engineering Chavez GC A #1				Lab Orde	r: 0608109		
Lab ID:	0608109-04			Collection I	Date: 8/7/200	06 12:45:00 PM		
<b>Client</b> Sample	e ID: MW #4		Matrix: AQUEOUS					
Analyses	·	Result	PQL	Qual Units	DF	Date Analyzed		
EPA METHO	0 8021B: VOLATILES					Analyst: NSB		
Benzene		ND	1.0	µg/L	1	8/14/2006 4:21:48 PM		
Toluene		ND	1.0	µg/L	1	8/14/2006 4:21:48 PM		
Ethylbenzene		ND	1.0	µg/L	1	8/14/2006 4:21:48 PM		
Xylenes, Total	I	5.3	3.0	µg/L	1	8/14/2006 4:21:48 PM		
Surr: 4-Bron	mofluorobenzene	111	72.2-125	%REC	1	8/14/2006 4:21:48 PM		

#### Hall Environmental Analysis Laboratory, Inc.

Date: 15-Aug-06

#### Qualifiers:

Value exceeds Maximum Contaminant Level \*

Value above quantitation range Ε

J S

Н

Analyte detected below quantitation limits

Spike Recovery outside accepted recovery limits

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Page 2 of 2

# PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

#### **CATION / ANION ANALYSIS**

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #1	Date Reported:	08-08-06
Laboratory Number:	38070	Date Sampled:	08-07-06
Chain of Custody:	14668	Date Received:	08-07-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-08-06
Condition:	Cool & Intact		

	Analytical			
Parameter	Result	Units		
рН	7.78	s.u.		
Conductivity @ 25° C	2,340	umhos/cm		
Total Dissolved Solids @ 180C	1,670	mg/L		
Total Dissolved Solids (Calc)	1,680	mg/L		
SAR	16.3	ratio		
Total Alkalinity as CaCO3	520	mg/L		
Total Hardness as CaCO3	172	mg/L		
Bicarbonate as HCO3	520	mg/L	8.52	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	<0.01	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.01	mg/L	0.00	meq/L
Chloride	9.60	mg/L	0.27	meq/L
Fluoride	0.78	mg/L	0.04	meq/L
Phosphate	0.72	mg/L	0.02	meq/L
Sulfate	780	mg/L	16.24	meq/L
Iron	0.028	mg/L	0.00	meq/L
Calcium	68.0	mg/L	3.39	meq/L
Magnesium	0.48	mg/L	0.04	meq/L
Potassium	12.8	mg/L	0.33	meq/L
Sodium	490	mg/L	21.32	meq/L
Cations			25.08	meg/L
Anions			25.10	meq/L
Cation/Anion Difference			0.09%	

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

Analyst Analyst

Cul SVall

# PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

#### **CATION / ANION ANALYSIS**

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #2	Date Reported:	08-08-06
Laboratory Number:	38071	Date Sampled:	08-07-06
Chain of Custody:	14668	Date Received:	08-07-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-08-06
Condition:	Cool & Intact		

	Analytical			
Parameter	Result	Units		
рН	7.78	s.u.		
Conductivity @ 25° C	3,020	umhos/cm		
Total Dissolved Solids @ 180C	2,070	mg/L		
Total Dissolved Solids (Calc)	1,950	mg/L		
SAR	10.4	ratio		
Total Alkalinity as CaCO3	890	mg/L		
Total Hardness as CaCO3	432	mg/L		
Bicarbonate as HCO3	890	mg/L	14.59	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	<0.01	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.01	mg/L	0.00	meq/L
Chloride	40.1	mg/L	1.13	meq/L
Fluoride	3.44	mg/L	0.18	meq/L
Phosphate	<0.1	mg/L	0.00	meq/L
Sulfate	692	mg/L	14.41	meq/L
Iron	<0.01	mg/L	0.00	meq/L
Calcium	168	mg/L	8.38	meq/L
Magnesium	2.81	mg/L	0.23	meq/L
Potassium	0.68	mg/L	0.02	meq/L
Sodium	498	mg/L	21.66	meq/L
Cations			30.29	meg/L
Anions			30.31	meq/L
Cation/Anion Difference			0.04%	

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

Mister m Walter Analyst

RulsVall

# ENVIROTECH LABS

#### **CATION / ANION ANALYSIS**

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #3	Date Reported:	08-08-06
Laboratory Number:	38072	Date Sampled:	08-07-06
Chain of Custody:	14668	Date Received:	08-07-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-08-06
Condition:	Cool & Intact		

	Analytical			
Parameter	Result	Units		
рН	7.19	s.u.		
Conductivity @ 25° C	1,140	umhos/cm		
Total Dissolved Solids @ 180C	760	mg/L		
Total Dissolved Solids (Calc)	750	mg/L		
SAR	3.8	ratio		
Total Alkalinity as CaCO3	416	mg/L		
Total Hardness as CaCO3	285	mg/L		
Bicarbonate as HCO3	416	mg/L	6.82	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meg/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	<0.01	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.01	mg/L	0.00	meq/L
Chloride	16.4	mg/L	0.46	meq/L
Fluoride	0.73	mg/L	0.04	meq/L
Phosphate	<0.1	mg/L	0.00	meq/L
Sulfate	230	mg/L	4.79	meq/L
Iron	0.7	mg/L	0.03	meq/L
Calcium	83.2	mg/L	4.15	meq/L
Magnesium	18.5	mg/L	1.52	meq/L
Potassium	2.10	mg/L	0.05	meq/L
Sodium	146	mg/L	6.35	meq/L
Cations			12.08	meg/L
Anions			12.11	meq/L
Cation/Anion Difference			0.24%	

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.

Daetes Mistin -mAnalyst

Blue Walk Review

## PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

#### **CATION / ANION ANALYSIS**

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	MW #4	Date Reported:	08-08-06
Laboratory Number:	38073	Date Sampled:	08-07-06
Chain of Custody:	14668	Date Received:	08-07-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	08-08-06
Condition:	Cool & Intact		

	Analytical			
Parameter	Result	Units		
pH	7.29	S.U.		
Conductivity @ 25° C	836	umhos/cm		
Total Dissolved Solids @ 180C	528	mg/L		
Total Dissolved Solids (Calc)	530	mg/L		
SAR	1.3	ratio		
Total Alkalinity as CaCO3	420	mg/L		
Total Hardness as CaCO3	332	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	<0.01	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.01	mg/L	0.00	meq/L
Chloride	18.6	mg/L	0.52	meq/L
Fluoride	0.46	mg/L	0.02	meq/L
Phosphate	<0.1	mg/L	0.00	meq/L
Sulfate	75.0	mg/L	1.56	meq/L
Iron	0.245	mg/L	0.01	meq/L
Calcium	115	mg/L	5.74	meq/L
Magnesium	10.70	mg/L	0.88	meq/L
Potassium	3.94	mg/L	0.10	meq/L
Sodium	52.3	mg/L	2.28	meq/L
Cations			8.99	mea/L
Anions			8.99	meq/L
Cation/Anion Difference			0.01%	

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.

Mristin milaeters Analyst

Ruh Wall

CHAIN-OF-CUSTODY RECORD	QA / QC Package: Std 🗖 Level 4 🗖 Other:	HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D Albuquerque, New Mexico 87109						
Ilient: BLAGE ENER. BP AMERICA	Project Name: CHAVEZ GC A # (	Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com						
Address: P.O. BUX 87	Project #:	ANALYSIS REQUEST						
BLFD. NM 87413	21							
, 	JCB	<b>e</b> (8021 <b>/</b> 3asoline C is/Diesel) PO <sub>4</sub> , SO <sub>4</sub> )						
Phone #: 632 -//99 ax #:	Sampler: NV Sample Temperature: 14	E + TMB <sup>+</sup> E + TMB <sup>+</sup> B015B (Ge B015B (Ge B021) B021) B021) B021) B021) B021) B021) C0A)						
Date Time Matrix Sample I.D. No.	Preservative     HEAL No.       Number/Volume     HgCl <sub>2</sub>	BTEX + MTB BTEX + MTB TPH Method TPH (Method EDC (Method B310 (PNA o B310 (PNA o B081 Pestici B260B (VDA B260B (VDA						
3/1/06 1130 WATTER MW #1	2-40ml J 0608104-1							
1/1/06 1315 WATER MW #2	2-40 ml / .2							
17/05 1205 WATER MW # 3	2-40 ml / -3							
1/06 1245 WATER MW 744	2-40 ml V -4							
Jape: / Time: Relinguished By (Signatupe)	Received By: KSigneturel	Remarks:						
18/06 0700 ///////////////////////////////	Received By: (Signature)							

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#### DEFINITIONS

- 11 "Acceptance of a sample" means the determination of HEAL to proceed with work following receipt and inspection of such sample.
- 1.2 "Customer" means the individual or entity who may request laboratory services and his or its heirs, successors, assigns, and representatives.
- 1.3 HEAL means Hall Environmental Analysis Laboratory its employees, servants, agents, and representative.
- 1.4 "Price schedule" means HEAL'S standard price schedule, as such, document may be amended from time to time by HEAL.
- 1.5 "Results" mean data generated by HEAL from the analysis of one or more samples.
- 16 "Terms and Conditions" mean these Terms and Conditions of sale, including the Price Schedule, and any additions or amendments hereto which are agreed to in writing by HEAL as provided in Section 7.1

#### 2. ORDERS

- 21 The customer may order services by submitting a written purchase order to HEAL, by placing a telephone order, which will be subsequently confirmed in writing, or by negotiated contract. Any such order constitutes a) an acceptance by the Customer of HEAL'S offer to do business with the Customer under these Terms and Conditions, and b) an agreement to be bound by these Terms and Conditions. The Customer's delivery of samples to HEAL constitutes the Customer's express assent to be governed by these Terms and Conditions. HEAL reserves the right to refuse to proceed with work at any time based upon an unfavorable customer credit report.
- 2.2 Any order placed by the Customer under Section 2.1 is subject to a munimum cancellation charge of \$250.

#### 3. PAYMENT TERMS

- 31 Services performed by HEAL will be in accordance with prices quoted and later confirmed in writing or as stated on the Price Schedule, which prices are subject to change periodically without notice. The Customer should confirm with HEAL the current price prior to placing an order for work.
- 3 2 Payment terms are net 30 days from the date of invoice by HEAL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) per month or portion thereof from the due date until the date of payment. All payments shall be made in United State currency.
- 3.3 The prices stated on the Price Schedule do not include any sales, use or other taxes unless specifically stated. Such taxes will be added to invoice prices when required.

#### 4. RECEIPT OF SAMPLES AND DELIVERY OF SERVICES

- 41 Prior to HEAL'S Acceptance of any sample (or after any revocation of Acceptance), the entire risk of loss or damage to such sample will remain with the Customer. In no event will HEAL have any responsibility or liability for the action or inaction of HEAL'S carrier shipping or delivering any sample to or from HEAL'S premises.
- 4.2 HEAL reserves the absolute right, exercisable at any time to refuse delivery of, refuse to accept, or revoke Acceptance or, any sample which in the sole judgement of HEAL a) is of unsuitable volume, b) unsuitable containers as required for the requested analysis, or c) may be or become unsuitable for, or may pose a risk in, handling, transport or processing for any health, safety, environmental or other reason, whether or not due to the presence in the sample of any hazardous substance and whether or not such presence has been disclosed to HEAL by the Customer.
- 4.3 Where applicable, HEAL will use analytical methodologies which are in substantial conformity with U.S. Environmental Protection Agency (EPA), state agency, American Society for Testing and Materials (ASTM), Association of Official Analytical Chernist (AOAC), Standard Methods for the examination of Water and Wastewater, or other recognized methodologies. HEAL reserves the right to deviate from these

methodologies, if necessary or appropriate due to the nature of composition of the sample or otherwise based on the reasonable judgement of HEAL, which deviation, if any will be made on a basis consistent with recognized standards of industry and/ or HEAL'S Standard Operating Procedures.

- 4.4 Upon timely delivery of samples, HEAL will use its best efforts to comply with storage, processing and analytical holding time limits as set forth in applicable EPA or state guidelines or otherwise requested by the Customer or set forth on the Price Schedule. However, unless specifically made part of a written agreement between HEAL and the Customer, such time limits cannot be guaranteed. Unless specifically indicated on the Price Schedule or expressly made part of a written agreement between HEAL and the Customer, analytical turnaround times are not guaranteed.
- 45 At HEAL'S sole discretion, verbal Results may be given in advance of the written report of Results Such verbal Results are TENTATIVE RESULTS ONLY, subject to confirmation or change based on HEAL'S standard quality assumance review procedures.

#### 5. WARRANTIES, LIABILITY AND INDEMNIFICATION

- 5.1 HEAL warrants only that its services will fulfill obligations set forth in Section 4.3 and 4.4 hereof. This warranty is the sole and exclusive warranty given by HEAL in connection with any such services, and HEAL gives and makes no other representation or warranty of any kind, express or implied. No representative of HEAL is authorized to give or make any other representation or warranty or modify the warranty in any way.
- 5.2 The liability and obligations of HEAL, and the remedies of the Customer in connection with any services performed by HEAL will be limited to repeating the services performed or, at the sole option of HEAL, refunding in full or in part fees paid by the Customer for such services. HEAL'S obligation to repeat any services with respect to any sample will be contingent on the Customer's providing, at the request of HEAL and at the Customer's expense, an additional sample if necessary. Any reanalysis generating Results consistent with the Original Results will be at the Customer's expense. Except as otherwise specifically provided herein, HEAL shall have no liability, obligation or responsibility of any kind for any losses, costs, expenses, or other damages (including but not limited to any special, indirect, incidental or consequential damages) for any representation or warranty of a kind with resport to HEAL'S Services or Results.
- 5.3 In no event shall HEAL have any responsibility or liability to the Customer for any failure or delay in performance by HEAL, which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of HEAL. Such cause and circumstance shall include, but not be limited to, acts of God, acts of Customer, acts of orders of any government authonity, strikes or other labor disputes, natural disasters, accidents, wars, civil disputes, difficulties or delays in transportation, mail or delivery services, inability to obtain from HEAL usual sources sufficient services or supplies, or any other cause beyond HEAL'S reasonable control.
- 5.4 All results provided by HEAL are strictly for the use of its Customers, and HEAL is in no way responsible for the use of such results by Customers or third parties. All results should be considered in their entirety, and HEAL is in no way responsible for the separation, detachment, or other use of any portion of the results.
- 5.5 The customer represents and warrants that any sample delivered to HEAL will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by the customer. The Customer further warrants that any sample containing any hazardous substance, which is to be delivered to HEAL'S premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.
- 5.6 It is understood and agreed that all samples and cuttings of materials containing hazardous containing hazardous containing the property and the responsibility of the Customer. All contaminated samples and laboratory byproducts will be returned to the Customer for disposal. It is understood and agreed that HEAL is not, and has no responsibility as, a generator, treater, storer, or disposer of hazardous or toxic substances found or identified at a site, and the Customer agrees to assume the responsibility for the foregoing.

- The Customer shall inderunify and hold harmless HEAL from and against any and all claims, suits, judgements, damages, losses, liabilities, expenses, payments, taxes, duties, fanes and/or other costs (including but not limited to liability to a third party) arising out of a) the presence of hazardous substances in any sample of the Customer regardless of the Customer's compliance with paragraph 5.5 hereof b) accidents occurring during the transport of any sample of the Customer, e) events control, or d) negligence by the Customer in the use, evaluation, or application of Results provided by HEAL.
- 5.8 Should any Customer sample, due to its matrix or constituents of its matrix, cause the operations of any HEAL instrumentation to be reduced, stopped, or altered, HEAL is entitled to compensation by the Customer for any loss of revenue due to the instrument's downtime, and/or the parts and labor necessary to bring the instruments back to its former operating condition. The amount of compensation is negotiable upon acceptance of these Terms and Conditions and the individual circumstances warranting the reimbursement.

#### 6. ENTIRE AGREEMENT: SEVERABILITY

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- 6.1 These Terms and Conditions, together with any additions or revisions which may be agreed to in writing by HEAL as provided in Section 7.1, embodied the whole agreement of the parties. There are no promises, terms, conditions, understandings, obligations or agreements other than those contained herein, unless made in accordance with Section 7.1; and these Terms and Conditions shall supersede all previous communications, representations, or agreements, ether verbal or written, between the Customer and HEAL. HEAL specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Customer to HEAL.
- 6.2 The invalidity or unenforceability, in whole or in part of any provision, term or condition here of shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions, the intent of the parties being that the provisions be severable.

#### 7. AMENDMENTS AND WAIVERS

- 7.1 HEAL shall not be subject to or bound by any provision, term or condition which is in addition to or inconsistent or conflicting with these Terms and Conditions. HEAL shall not be deemed to have amended or waived and provision, term or condition, or have given any required consent or approval, or to have waived any breach by the Customer of any of these Terms and Conditions unless specifically set forth in writing and executed on behalf of HEAL by a duly authorized officer. No other employee, servant, agent or representatives of HEAL has any authority whatsoever to add to, delete, alter or vary any of these Terms and Conditions in any manner, or to give any consent, approval or waiver, and HEAL shall not be bound by any such purported addition, deletion, alteration, variation, consent, approval or waiver.
- 1.2 No waiver by HEAL of any provision, term or condition hereof or of any breach by or obligation of the Customer hereunder shall constitute a waiver of such provision, term or condition on any other occasion or a waiver of any other breach by or obligation of the Customer.

#### 8. SAMPLE STORAGE

8.1 Bulk samples will be retained for thirty (30) days after the analytical report has been issued unless alternate arrangements have been made in advance. Storage of samples or extracts for longer periods is by request only. Sample storage charges depend upon storage requirements and duration. Nominally, a sample storage fee of \$5.00 per sample, per month will be billed monthly unless other arrangements are made. If requested, unused sample material may be returned at the client's expense. Materials, which are identified as hazardous, will be returned to the client or disposed of as hazardous waste and billed at the rate of \$25.00 per sample. HEAL reserves the right to return all diberzodioxins/diberzofurns to the client.

#### 9. SECTION HEADING

- 9.1 The section headings of these Terms and Conditions are intended solely for convenient reference and shall not define, limit or affect in any way These Terms and Conditions or their interpretations.
- 10. GOVERNING LAW
- 10.1 These Terms and Conditions, and transaction or agreement, to which they apply, shall be governed both as to interpretation and performance by the laws of the State of New Mexico.

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### CHAIN OF CUSTODY RECORD

Client / Project Name			Project Location			ANALYSIS / PARAMETERS									
BLAGE /	BP		CHAVEZ	GC A	#/						 				
Sampler:	,		Client No. 94034-	010		5	an of an of		-		Remarks				
Sample No./ Identification	Sample Date	Sample Time	Lab Number		Sample Matrix		Cont	Arlong	5		GRAU	E/CVE 8 54	AMP	200 ES	-
MW # /	8/7/06	1130	38070	Wr	WATER		1								
MW #2	8/7/06	1315	38071	WA	MER		1	$\checkmark$							
MW # 3	8/7/06	1205	38072	WA	TER		1								
MW #4	8/1/06	1245	38073	WŦ	ITER		/								
Relinquished by: (Signa Relinquished by: (Signa	ature) ature)			Date 8/7/06	Date Time Received by: (Signature) 8/7/06 (430 Austre Walter Received by: (Signature)				Da 8/7	ate /////	Ti /4	ne 30			
Relinquished by: (Signa	ature)					Receive	d by: (S	ignature)			 				
				ENV	<b>IRO</b>	TEC	ΉI	INC.			Sam	iple Re	ceipt	I	 [
				5 Farmi	5796 U.S ington, 1	3. Highv New Me	vay 64 xico 8	4 37401			 Received Inta	act	Y	N	N/A
				(505) 632-0615						Cool - Ice/Blue	e Ice	V			

san juan reproduction 578-129

#### **QA/QC SUMMARY REPORT**

Client: Project:	Blagg Engineering Chavez GC A #1		_				v	Vork Order: 0608109
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: SW802	:1							<u> </u>
Sample ID: 5ML F	RB-111	MBLK			Batch I	D: <b>R20262</b>	Analysis Da	ate: 8/12/2006 2:03:56 AM
Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	3.0					
Sample ID: B		MBLK			Batch I	D: <b>R20273</b>	Analysis Da	ate: 8/14/2006 1:17:10 PM
Benzene	ND	μg/L	1.0					
Toluene	ND	μg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	· ND	µg/L	3.0					
Sample ID: 100N	G BTEX LCS-III	LCS			Batch I	D: <b>R20262</b>	Analysis Da	ate: 8/12/2006 7:56:33 AM
Benzene	17.99	µg/L	1.0	90.0	85	115		
Toluene	18.42	µg/L	1.0	92.1	85	118		
Ethylbenzene	19.03	µg/L	1.0	95.1	85	116		
Xylenes, Total	59.71	µg/L	3.0	97.3	85	119		
Sample ID: 10NG	BTEX LCS	LCS			Batch I	D: <b>R20273</b>	Analysis Da	ate: 8/14/2006 10:41:00 PM
Benzene	1.844	µg/L	1.0	92.2	85	115		
Toluene	1.878	μg/L	1.0	93.9	85	118		
Ethylbenzene	1.994	ug/L	1.0	99.7	85	116		
Xylenes, Total	6.136	μg/L	3.0	102	85	119		
Sample ID: 100N	G BTEX LCSD-I	LCSD			Batch I	D: <b>R20262</b>	Analysis Da	ate: 8/12/2006 8:47:53 AM
Benzene	18.22	µg/L	1.0	91.1	85	115	1.25	27
Toluene	17.82	µg/L	1.0	89.1	85	118	3.31	19
Ethylbenzene	18.94	µg/L	1.0	94.7	85	116	0.453	10
Xylenes, Total	58.76	µg/L	3.0	95.7	85	119	1.62	13
Sample ID: 10NG	BTEX LCSD	LCSD			Batch I	D: <b>R20273</b>	Analysis Da	ate: 8/14/2006 11:12:34 PM
Benzene	1.942	µg/L	1.0	97.1	85	115	5.18	27
Toluene	1.972	µg/L	1.0	98.6	85	118	4.88	19
Ethylbenzene	2.084	µg/L	1.0	104	85	116	4.41	10
Xylenes, Total	6.416	µg/L	3.0	107	85	119	4.46	13

#### Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits
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#### Hall Environmental Analysis Laboratory, Inc.

	Sample	Rece	eipt Ch	necklist				
Client Name BLAGG				Date and Time	Received:		;	8/9/2006
Work Order Number 0608109	$\frown$			Received by	NJM			
Checklist completed by	AL.		8	19/10/				
Signature	118		Date	11/00				
Matrix:	Carrier name:	<u>Grey</u>	/hound					
Shipping container/cooler in good condition?		Yes		No 🗆	Not Present			
Custody seals intact on shipping container/cool	er?	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	I received?	Yes	$\checkmark$	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 subr	nitted		Yes 🗹	No 🗌			
Water - pH acceptable upon receipt?		Yes		No 🗌	N/A 🗹			
Container/Temp Blank temperature?		· 1	4°	4° C ± 2 Accepta If given sufficient	ble time to cool.			
COMMENTS:								
	·							
Client contacted	Date contacted:			Pers	on contacted	<del>.</del>	·····	
Contacted by:	Regarding:	<b>_</b>						
Comments:								
	<u></u>			<u></u>	<u> </u>			<u>·</u>
					<u> </u>			
	<u>.</u>				·····			
								<u></u>
Corrective Action				· · · · · · · · · · · · · · · · · · ·		. <u> </u>		
							,	
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Hall Envir	09-Mar-06							
CLIENT:Blagg EngineeringLab Order:0603029Project:BP-Chavez GC A1 ProductionLab ID:0603029-01				Client S Collec Date	ample ID: tion Date: Received: Matrix:	<ul> <li>(A)</li> <li>(B)</li> <li>(B)</li> <li>(C)</li> <li>(C)</li></ul>		
Analyses		Result	PQL	Qual Units		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: SCC	
Diesel Range C	Drganics (DRO)	ND	10	mg/Kg		1	3/6/2006 3:31:56 PM	
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg	I	1	3/6/2006 3:31:56 PM	
Surr: DNOP		92.5	60-124	%REC	;	1	3/6/2006 3:31:56 PM	
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB	
Gasoline Rang	e Organics (GRO)	8.1	5.0	mg/Kg	l	1	3/7/2006 6:53:03 PM	
Surr: BFB		101	<del>79</del> -128	%REC	;	1	3/7/2006 6:53:03 PM	
EPA METHOD	8021B: VOLATILES						Analyst: NSB	
Benzene		ND	0.050	mg/Kg	I	1	3/7/2006 6:53:03 PM	
Toluene		ND	0.050	mg/Kg	1	1	3/7/2006 6:53:03 PM	
Ethylbenzene		ND	0.050	mg/Kg	1	1	3/7/2006 6:53:03 PM	
Xylenes, Total		0.72	0.050	mg/Kg	ļ	1	3/7/2006 6:53:03 PM	
Surr: 4-Bron	nofluorobenzene	103	87.5-115	%REC	;	1	3/7/2006 6:53:03 PM	
EPA METHOD	9056A: ANIONS						Analyst: MAP	
Chloride		22	0.30	mg/Kg	1	1	3/7/2006	

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\* Value exceeds Maximum Contaminant Level

E Value above quantitation range

- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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Hall Envir	01-M	01-May-06					
CLIENT: Lab Order: Project: Lab ID:	Blagg Engineering 0604257 Chavez A 1 0604257-01			Client Sar Collecti Date R	Client Sample ID: Collection Date: Date Received: Matrix:		5 25 W @ 7' 2006 12:40:00 PM 2006
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP
Diesel Range Organics (DRO)		ND	10	mg/Kg		1	4/28/2006 5:29:43 AM
Motor Oil Range Organics (MRO)		ND	50	mg/Kg		1	4/28/2006 5:29:43 AM
Surr: DNOP		88.6	60-124	%REC		1	4/28/2006 5:29:43 AM
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: HLM
Gasoline Range	e Organics (GRO)	ND	5.0	mg/Kg		1	4/28/2006 12:44:15 PM
Surr: BFB		101	81.7-127	%REC		1	4/28/2006 12:44:15 PM
EPA METHOD	8021B: VOLATILES						Analyst: HLM
Benzene		ND	0.050	mg/Kg		1	4/28/2006 12:44:15 PM
Toluene		ND	0.050	mg/Kg		1	4/28/2006 12:44:15 PM
Ethylbenzene		ND	0.050	mg/Kg		1	4/28/2006 12:44:15 PM
Xylenes, Total		ND	0.15	mg/Kg		1	4/28/2006 12:44:15 PM
Surr: 4-Brom	ofluorobenzene	106	77.6-114	%REC		1	4/28/2006 12:44:15 PM
EPA METHOD	9056A: ANIONS						Analyst: MAP
Chloride		ND	3.0	mg/Kg		10	4/27/2006 8:02:48 PM

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Value exceeds Maximum Contaminant Level

- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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Hall Envir	01-M	01-May-06						
CLIENT: Lab Order: Project:	Blagg Engineering 0604257 Chavez A 1			C	Client Sample ID: Collection Date: Date Received: Matrix:	210' S 2 E @ 7' 4/26/2006 12:47:00 PM 4/27/2006 SOU		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP	
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg	1	4/28/2006 6:02:46 AM	
Motor Oil Range Organics (MRO)		ND	50		mg/Kg	1	4/28/2006 6:02:46 AM	
Surr: DNOP		84.5	60-124		%REC	1	4/28/2006 6:02:46 AM	
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: HLM	
Gasoline Rang	e Organics (GRO)	42	5.0		mg/Kg	1	4/28/2006 1:13:25 PM	
Surr: BFB		174	81.7-127	S	%REC	1	4/28/2006 1:13:25 PM	
EPA METHOD	8021B: VOLATILES						Analyst: <b>HLM</b>	
Benzene		ND	0.050		mg/Kg	1	4/28/2006 1:13:25 PM	
Toluene		0.13	0.050		mg/Kg	1	4/28/2006 1:13:25 PM	
Ethylbenzene		0.14	0.050		mg/Kg	1	4/28/2006 1:13:25 PM	
Xylenes, Total		1.4	0.15		mg/Kg	1	4/28/2006 1:13:25 PM	
Surr: 4-Brom	nofluorobenzene	111	77.6-114		%REC	1	4/28/2006 1:13:25 PM	
EPA METHOD	9056A: ANIONS						Analyst: MAP	
Chloride		4.6	3.0		mg/Kg	10	4/27/2006 8:20:12 PM	

Qualifiers: \* Value exceeds Maximum Contaminant Level

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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Hall Envir	onmental Analys	is Labora		Date: 01-May-06					
CLIENT:	Blagg Engineering		······	Cl	lient Sample ID:	237' S	S 27 E @ 7'		
Lab Order:	0604257				Collection Date:	4/26/2006 12:52:00 PM			
Project:	Chavez A 1				Date Received:		4/27/2006		
Lab ID:	0604257-03				Matrix:				
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP		
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg	1	4/28/2006 6:35:49 AM		
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg	1	4/28/2006 6:35:49 AM		
Surr: DNOP		84.7	60-124		%REC	1	4/28/2006 6:35:49 AM		
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: <b>HLM</b>		
Gasoline Range	e Organics (GRO)	ND	5.0		mg/Kg	1	4/28/2006 1:42:31 PM		
Surr: BFB		99.7	81.7-127		%REC	1	4/28/2006 1:42:31 PM		
EPA METHOD	8021B: VOLATILES						Analyst: HLM		
Benzene		ND	0.050		mg/Kg	1	4/28/2006 1:42:31 PM		
Toluene		ND	0.050		mg/Kg	1	4/28/2006 1:42:31 PM		
Ethylbenzene		ND	0.050		mg/Kg	1	4/28/2006 1:42:31 PM		
Xylenes, Total		ND	0.15		mg/Kg	1	4/28/2006 1:42:31 PM		
Surr: 4-Brom	nofluorobenzene	103	77.6-114		%REC	1	4/28/2006 1:42:31 PM		
EPA METHOD	9056A: ANIONS						Analyst: MAP		
Chloride		12	3.0		mg/Kg	10	4/27/2006 8:37:36 PM		

\* Value exceeds Maximum Contaminant Level

- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Hall Envir	ronmental Analysi	Date: 01-May-06							
CLIENT: Lab Order: Project:	Blagg Engineering 0604257 Chayez A 1				Client Sample Collection D	ID: 246' ate: 4/26/	S 54 E @ 7' 2006 1:03:00 PM		
Lab ID:	0604257-04				Mate Recei	rix: SOII	SOIL		
Analyses		Result	PQL	Qua	al Units		Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS			<u> </u>		Analyst: JMP		
Diesel Range (	Organics (DRO)	120	10		mg/Kg	1	4/28/2006 7:08:53 AM		
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg	1	4/28/2006 7:08:53 AM		
Surr: DNOP		117	60-124		%REC	1	4/28/2006 7:08:53 AM		
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: HLM		
Gasoline Rang	e Organics (GRO)	370	50		mg/Kg	10	4/28/2006 11:45:59 AM		
Surr: BFB		215	81.7-127	S	%REC	10	4/28/2006 11:45:59 AM		
EPA METHOD	8021B: VOLATILES						Analyst: HLM		
Benzene		ND	0.50		mg/Kg	10	4/28/2006 11:45:59 AM		
Toluene		ND	0.50		mg/Kg	10	4/28/2006 11:45:59 AM		
Ethylbenzene		0.62	0.50		mg/Kg	10	4/28/2006 11:45:59 AM		
Xylenes, Total		6.4	1.5		mg/Kg	10	4/28/2006 11:45:59 AM		
Surr: 4-Bron	nofluorobenzene	126	77.6-114	S	%REC	10	4/28/2006 11:45:59 AM		
EPA METHOD	9056A: ANIONS						Analyst: MAP		
Chloride		110	3.0		mg/Kg	10	4/27/2006 8:55:01 PM		

Qualifiers: \* Value exceeds Maximum Contaminant Level

Е Value above quantitation range

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

- В Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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Hall Enviro		Date: 22-May-06								
CLIENT:	CLIENT: Blagg Engineering				Client Sample	e ID:	255' S 34 E @ 9'			
Lab Order:	0605144		<b>Collection Date: 5</b>				5/10/2	5/10/2006 11:10:00 AM		
Project:	Chavez A #1				Date Recei	ved:	5/12/2	2006		
Lab ID:	0605144-01				Matrix:					
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed		
EPA METHOD 8	015B: DIESEL RANGE	ORGANICS						Analyst: SCC		
Diesel Range Org	ganics (DRO)	44	10		mg/Kg		1	5/18/2006 12:56:54 AM		
Surr: DNOP		110	61.7-135		%REC		1	5/18/2006 12:56:54 AM		
EPA METHOD 8	015B: GASOLINE RAN	GE						Analyst: HLM		
Gasoline Range	Organics (GRO)	330	25		mg/Kg		5	5/17/2006 7:48:14 PM		
Surr: BFB		262	81.7-127	S	%REC		5	5/17/2006 7:48:14 PM		
EPA METHOD 8	021B: VOLATILES							Analyst: HLM		
Benzene		ND	0.25		mg/Kg		5	5/17/2006 7:48:14 PM		
Toluene		0.57	0.25		mg/Kg		5	5/17/2006 7:48:14 PM		
Ethylbenzene		0.40	0.25		mg/Kg		5	5/17/2006 7:48:14 PM		
Xylenes, Total		25	0.75		mg/Kg		5	5/17/2006 7:48:14 PM		
Surr: 4-Bromo	fluorobenzene	124	77.6-114	S	%REC		5	5/17/2006 7:48:14 PM		
EPA METHOD 9	056A: ANIONS							Analyst: MAP		
Chloride		25	1.5		mg/Kg		5	5/18/2006 5:24:55 PM		

Value exceeds Maximum Contaminant Level Ε Value above quantitation range

- Analyte detected below quantitation limits J
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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\*

Hall Envir	onmental Analysi	is Labora		Da	n-06		
CLIENT:	Blagg Engineering			C	Client Sample 1	D: 234' S	67 E @ 8'
Lab Order:	0605244				<b>Collection Da</b>	te: 5/17/2	2006 9:25:00 AM
Project:	Chavez A #1				Date Receive	ed: 5/22/2	2006
Lab ID:	0605244-01				Matr	ix: SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS		-			Analyst: SCC
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg	1	5/25/2006 3:40:40 PM
Surr: DNOP		145	61.7-135	S	%REC	1	5/25/2006 3:40:40 PM
EPA METHOD	8015B: GASOLINE RANG	GE					Analyst: HLM
Gasoline Rang	e Organics (GRO)	ND	5.0		mg/Kg	1	5/25/2006 9:32:08 AM
Surr: BFB		98.8	81.7-127		%REC	1	5/25/2006 9:32:08 AM
EPA METHOD	8021B: VOLATILES						Analyst: <b>HLM</b>
Benzene		ND	0.050		mg/Kg	1	5/25/2006 9:32:08 AM
Toluene		ND	0.050		mg/Kg	1	5/25/2006 9:32:08 AM
Ethylbenzene		ND	0.050		mg/Kg	1	5/25/2006 9:32:08 AM
Xylenes, Total		ND	0.15		mg/Kg	1	5/25/2006 9:32:08 AM
Surr: 4-Brorr	nofluorobenzene	100	77.6-114		%REC	1	5/25/2006 9:32:08 AM
EPA METHOD	9056A: ANIONS						Analyst: MAP
Chloride		2 <del>9</del>	1.5		mg/Kg	5	5/24/2006 5:55:29 AM

\* Value exceeds Maximum Contaminant Level Ε Value above quantitation range

- J
- Analyte detected below quantitation limits S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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Hall Envir	: 02-Ju	n-06						
CLIENT:Blagg EngineeringLab Order:0605244Project:Chavez A #1				C	Client Sample ID: Collection Date: Date Received:		288' S 68 E @ 8' 5/17/2006 9:33:00 AM 5/22/2006	
Lab ID:	0605244-02				Matrix	: SOIL		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: SCC	
Diesel Range (	Organics (DRO)	ND	10		mg/Kg	1	5/25/2006 4:14:20 PM	
Surr: DNOP		154	61.7-135	S	%REC	1	5/25/2006 4:14:20 PM	
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: <b>HLM</b>	
Gasoline Rang	e Organics (GRO)	ND	5.0		mg/Kg	1	5/25/2006 9:02:59 AM	
Surr: BFB		96.8	81.7 <b>-</b> 127		%REC	1	5/25/2006 9:02:59 AM	
EPA METHOD	8021B: VOLATILES						Analyst: <b>HLM</b>	
Benzene		ND	0.050		mg/Kg	1	5/25/2006 9:02:59 AM	
Toluene		ND	0.050		mg/Kg	1	5/25/2006 9:02:59 AM	
Ethylbenzene		ND	0.050		mg/Kg	1	5/25/2006 9:02:59 AM	
Xylenes, Total		ND	0.15		mg/Kg	1	5/25/2006 9:02:59 AM	
Surr: 4-Bron	nofluorobenzene	98.0	77.6-114		%REC	1	5/25/2006 9:02:59 AM	
EPA METHOD	9056A: ANIONS						Analyst: MAP	
Chloride		48	1.5		mg/Kg	5	5/24/2006 6:12:54 AM	

Value exceeds Maximum Contaminant Level \*

Ε Value above quantitation range Analyte detected below quantitation limits J

S

В Analyte detected in the associated Method Blank

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Spike Recovery outside accepted recovery limits

Qualifiers:

Hall Envir	conmental Analysi	D	ate: 02-Ju A	n-06				
CLIENT: Lab Order:	Blagg Engineering 0605244			Client Sample Collection D	ID: 354 S ate: 5/19/2	2006 9:25:00 AM		
Project:	Chavez A #1			Date Receiv	ved: 5/22/2	5/22/2006		
Lab ID:	0605244-03			· Mat	rix: SOIL			
Analyses		Result	PQL	Qual Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS				Analyst: SCC		
Diesel Range (	Drganics (DRO)	ND	10	mg/Kg	1	5/25/2006 4:48:13 PM		
Surr: DNOP		121	61.7-135	%REC	1	5/25/2006 4:48:13 PM		
EPA METHOD	8015B: GASOLINE RAN	GE				Analyst: HLM		
Gasoline Rang	e Organics (GRO)	ND	5.0	mg/Kg	1	5/25/2006 10:01:15 AM		
Surr: BFB		98.7	81.7-127	%REC	1	5/25/2006 10:01:15 AM		
EPA METHOD	8021B: VOLATILES					Analyst: <b>HLM</b>		
Benzene		ND	0.050	mg/Kg	1	5/25/2006 10:01:15 AM		
Toluene		ND	0.050	mg/Kg	1	5/25/2006 10:01:15 AM		
Ethylbenzene		ND	0.050	mg/Kg	1	5/25/2006 10:01:15 AM		
Xylenes, Total		ND	0.15	mg/Kg	1	5/25/2006 10:01:15 AM		
Surr: 4-Bron	nofluorobenzene	101	77.6-114	%REC	1	5/25/2006 10:01:15 AM		
EPA METHOD	9056A: ANIONS					Analyst: MAP		
Chloride		4.4	1.5	mg/Kg	5	5/24/2006 7:22:31 AM		

\* Value exceeds Maximum Contaminant Level

E Value above quantitation rangeJ Analyte detected below quantitat

J Analyte detected below quantitation limitsS 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

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Hall Envir	ate: 02-Ju	n-06					
CLIENT:	Blagg Engineering			Client Sample	<b>D:</b> 291'S	5 30 E @ 8'	
Project	Chavez A1			Data Data	vale. 5/20/2	5/26/2006 SOIL	
Lab ID:	0605300-01			Date Recel	trix: SOIL		
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE	ORGANICS				Analyst: SCC	
Diesel Range C	Drganics (DRO)	ND	10	mg/Kg	1	5/31/2006 11:46:23 AM	
Surr: DNOP		84.1	61.7-135	%REC	1	5/31/2006 11:46:23 AM	
EPA METHOD	8015B: GASOLINE RAN	GE				Analyst: NSB	
Gasoline Rang	e Organics (GRO)	ND	5.0	mg/Kg	1	5/31/2006 4:14:11 PM	
Surr: BFB		84.6	81.7-127	%REC	1	5/31/2006 4:14:11 PM	
EPA METHOD	8021B: VOLATILES					Analyst: NSB	
Benzene		ND	0.050	mg/Kg	1	5/31/2006 4:14:11 PM	
Toluene		ND	0.050	mg/Kg	1	5/31/2006 4:14:11 PM	
Ethylbenzene		ND	0.050	mg/Kg	1	5/31/2006 4:14:11 PM	
Xylenes, Total		ND	0.15	mg/Kg	1	5/31/2006 4:14:11 PM	
Surr: 4-Brom	nofiuorobenzene	85.8	77.6-114	%REC	1	5/31/2006 4:14:11 PM	
EPA METHOD	9056A: ANIONS					Analyst: MAP	
Chloride		5.3	1.5	mg/Kg	5	5/30/2006 9:40:33 PM	

\* Value exceeds Maximum Contaminant Level

Ε Value above quantitation range J

- Analyte detected below quantitation limits S
  - Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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Hall Envir	onmental Analys	is Labora		Date	: 28-Aj	pr-()6			
CLIENT: Lab Order: Project: Lab ID:	Blagg Engineering 0604150 Chavez GC A #1 0604150-01		Client Sample ID: Collection Date: Date Received: Matrix:				TH #1 @ 8' 4/13/2006 3:00:00 PM 4/17/2006 SOIL		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP		
Diesel Range C	Drganics (DRO)	280	10		mg/Kg	1	4/25/2006 8:41:38 AM		
Motor Oil Rang	e Organics (MRO)	59	50		mg/Kg	1	4/25/2006 8:41:38 AM		
Surr: DNOP		109	60-124		%REC	1	4/25/2006 8:41:38 AM		
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB		
Gasoline Rang	e Organics (GRO)	43	25		mg/Kg	5	4/20/2006 5:56:39 PM		
Surr: BFB		154	79-128	S	%REC	5	4/20/2006 5:56:39 PM		
EPA METHOD	8021B: VOLATILES						Analyst: NSB		
Benzene		ND	0.25		mg/Kg	5	4/20/2006 5:56:39 PM		
Toluene		ND	0.25		mg/Kg	5	4/20/2006 5:56:39 PM		
Ethylbenzene		0.53	0.25		mg/Kg	5	4/20/2006 5:56:39 PM		
Xylenes, Total		1.4	0.25		mg/Kg	5	4/20/2006 5:56:39 PM		
Surr: 4-Brom	nofluorobenzene	104	84.4-117		%REC	5	4/20/2006 5:56:39 PM		
EPA METHOD	9056A: ANIONS						Analyst: MAP		
Chloride		4.9	1.5		mg/Kg	5	4/24/2006 8:56:46 PM		

\*

Value exceeds Maximum Contaminant Level

- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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Hall Envir	onmental Analys	is Labora	Da	<b>Date:</b> 28-Apr-06				
CLIENT:	Blagg Engineering		- <u>-</u>	Client Sample I	D: TH #2	TH #2 @ 8'		
Lab Order:	0604150			Collection Dat	te: $4/13/2$	2006 3:12:00 PM		
Project:	Chavez GC A #1			Date Receive	d: 4/17/2	2006		
Lab ID:	0604150-02			Matri	x: SOIL	SOIL		
Analyses		Result	PQL	Qual Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS				Analyst: JMP		
Diesel Range (	Drganics (DRO)	25	10	mg/Kg	1	4/25/2006 9:14:56 AM		
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg	1	4/25/2006 9:14:56 AM		
Surr: DNOP		109	60-124	%REC	1	4/25/2006 9:14:56 AM		
EPA METHOD	8015B: GASOLINE RAN	GE				Analyst: NSB		
Gasoline Rang	e Organics (GRO)	ND	5.0	mg/Kg	1	4/21/2006 4:35:58 PM		
Surr: BFB		106	79-128	%REC	1	4/21/2006 4:35:58 PM		
EPA METHOD	8021B: VOLATILES					Analyst: NSB		
Benzene		ND	0.050	mg/Kg	1	4/21/2006 4:35:58 PM		
Toluene		ND	0.050	mg/Kg	1	4/21/2006 4:35:58 PM		
Ethylbenzene		ND	0.050	mg/Kg	1	4/21/2006 4:35:58 PM		
Xylenes, Total		0.28	0.050	mg/Kg	1	4/21/2006 4:35:58 PM		
Surr: 4-Brom	nofluorobenzene	99.4	84.4-117	%REC	1	4/21/2006 4:35:58 PM		
EPA METHOD	9056A: ANIONS					Analyst: MAP		
Chloride		3.2	1.5	mg/Kg	5	4/22/2006 4:34:29 AM		

Qualifiers: \* Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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Hall Envir	28-Aµ	pr-06							
CLIENT:	Blagg Engineering			С	lient Sample ID:	 TH #:	ΓH #3 @ 7'		
Lab Order:	0604150				<b>Collection Date:</b>	4/13/2	4/13/2006 3:22:00 PM		
Project:	Chavez GC A #1				Date Received:	4/17/2	4/17/2006 SOIL		
Lab ID:	0604150-03				Matrix:	SOIL			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP		
Diesel Range C	Drganics (DRO)	170	10		mg/Kg	1	4/25/2006 9:47:59 AM		
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg	1	4/25/2006 9:47:59 AM		
Surr: DNOP		106	60-124		%REC	1	4/25/2006 9:47:59 AM		
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB		
Gasoline Rang	e Organics (GRO)	770	50		mg/Kg	10	4/20/2006 8:02:41 PM		
Surr: BFB		480	79-128	S	%REC	10	4/20/2006 8:02:41 PM		
EPA METHOD	8021B: VOLATILES						Analyst: NSB		
Benzene		ND	0.50		mg/Kg	10	4/20/2006 8:02:41 PM		
Toluene		ND	0.50		mg/Kg	10	4/20/2006 8:02:41 PM		
Ethylbenzene		2.0	0.50		mg/Kg	10	4/20/2006 8:02:41 PM		
Xylenes, Total		5.0	0.50		mg/Kg	10	4/20/2006 8:02:41 PM		
Surr: 4-Brom	ofluorobenzene	129	84.4-117	S	%REC	10	4/20/2006 8:02:41 PM		
EPA METHOD	9056A: ANIONS						Analyst: MAP		
Chloride		7.7	0.30		mg/Kg	1	4/22/2006 4:51:53 AM		

E Value above quantitation range

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

Value exceeds Maximum Contaminant Level

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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Hall Envir	onmental Analys		<b>Date:</b> 28-Apr-06				
CLIENT: Lab Order: Project: Lab ID:	Blagg Engineering 0604150 Chavez GC A #1 0604150-04			Client Sa Collect Date I	mple ID: ion Date: Received: Matrix:	TH #4 @ 7' 4/13/2006 3:31:00 PM 4/17/2006 SOIL	
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP
Diesel Range O	rganics (DRO)	ND	10	mg/Kg		1	4/26/2006 1:39:36 PM
Motor Oil Range	e Organics (MRO)	ND	50	mg/Kg		1	4/26/2006 1:39:36 PM
Surr: DNOP		97.5	60-124	%REC		1	4/26/2006 1:39:36 PM
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB
Gasoline Range	e Organics (GRO)	ND	5.0	mg/Kg		1	4/21/2006 5:37:33 PM
Surr: BFB		102	7 <del>9</del> -128	%REC		1	4/21/2006 5:37:33 PM
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Benzene		ND	0.050	mg/Kg		1 .	4/21/2006 5:37:33 PM
Toluene		ND	0.050	mg/Kg		1	4/21/2006 5:37:33 PM
Ethylbenzene		ND	0.050	mg/Kg		1	4/21/2006 5:37:33 PM
Xylenes, Total		ND	0.050	mg/Kg		1	4/21/2006 5:37:33 PM
Surr: 4-Brom	ofluorobenzene	92.2	84.4-117	%REC		1	4/21/2006 5:37:33 PM
EPA METHOD	9056A: ANIONS						Analyst: MAP
Chloride		1.1	0.30	mg/Kg		1	4/24/2006 9:14:11 PM

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Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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Hall Envir	ronmental Analys		<b>Date:</b> 28-Apr-06					
CLIENT: Lab Order: Project: Lab ID:	Blagg Engineering 0604150 Chavez GC A #1 0604150-05			Client S Colle Date	Sample ID: ction Date: Received: Matrix:	TH #5 @ 7' 4/13/2006 3:42:00 PM 4/17/2006 SOIL		
Analyses	· ····	Result	PQL	Qual Unit	5	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP	
Diesel Range (	Organics (DRO)	ND	10	mg/Kę	9	1	4/25/2006 11:27:27 AM	
Motor Oil Rang	je Organics (MRO)	ND	50	mg/Ke	)	1	4/25/2006 11:27:27 AM	
Surr: DNOP		113	60-124	%REC	2	1	4/25/2006 11:27:27 AM	
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB	
Gasoline Rang	e Organics (GRO)	ND	5.0	mg/Kg	)	1	4/20/2006 7:30:37 PM	
Surr: BFB		89.3	79-128	%REC	2	1	4/20/2006 7:30:37 PM	
EPA METHOD	8021B: VOLATILES						Analyst: NSB	
Benzene		ND	0.050	mg/Kę	9	1	4/20/2006 7:30:37 PM	
Toluene		ND	0.050	mg/Kg	9	1	4/20/2006 7:30:37 PM	
Ethylbenzene		ND	0.050	mg/Kg	9	1	4/20/2006 7:30:37 PM	
Xylenes, Total		ND	0.050	mg/Kg	3	1	4/20/2006 7:30:37 PM	
Surr: 4-Bron	nofluorobenzene	92.3	84.4-117	%REC	C	1	4/20/2006 7:30:37 PM	
EPA METHOD	9056A: ANIONS						Analyst: MAP	
Chloride		ND	1.5	mg/Kę	)	5	4/24/2006 9:31:35 PM	

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Value exceeds Maximum Contaminant Level

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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Hall Envir	ronmental Analys	is Labora	tory	1	Date: 2	°8-Ap	r-06
CLIENT: Lab Order: Project: Lab ID:	Blagg Engineering 0604150 Chavez GC A #1 0604150-06			Client Sampl Collection 1 Date Rece Ma	e ID: 7 Date: 4 ived: 4 atrix: S	TH #6 /13/2 /17/2 OIL	5 @ 7' 2006 3:52:00 PM 2006
Analyses		Result	PQL	Qual Units		)F	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: JMP
Diesel Range (	Organics (DRO)	ND	10	mg/Kg	1		4/25/2006 12:00:47 PM
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg	1		4/25/2006 12:00:47 PM
Surr: DNOP		100	60-124	%REC	1		4/25/2006 12:00:47 PM
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB
Gasoline Rang	e Organics (GRO)	ND	5.0	mg/Kg	1		4/20/2006 9:06:44 PM
Surr: BFB		85.7	79-128	%REC	1		4/20/2006 9:06:44 PM
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Benzene		ND	0.050	mg/Kg	1		4/20/2006 9:06:44 PM
Toluene		ND	0.050	mg/Kg	1		4/20/2006 9:06:44 PM
Ethylbenzene		ND	0.050	mg/Kg	1		4/20/2006 9:06:44 PM
Xylenes, Total		ND	0.050	mg/Kg	1		4/20/2006 9:06:44 PM
Surr: 4-Bron	nofluorobenzene	91.5	84.4-117	%REC	1		4/20/2006 9:06:44 PM
EPA METHOD	9056A: ANIONS						Analyst: MAP
Chloride		2.2	0.30	mg/Kg	1		4/22/2006 5:44:07 AM

Qualifiers: \* Value exceeds Maximum Contaminant Level

- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

i

District I 1625 NJ Franch Dr. Habba NIM 99240	C.		
District II	Energy Mi	ate of New Mexico inerals and Natural Resources	Form C. June 1, 2
District III 1000 Rio Brazos Road, Aztec, NM 87410	Oil (	Conservation Division	For drilling and production facilities, submi appropriate NMOCD District Office.
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	S	anta Fe, NM 87505	office
Pit	or Below-Gra	de Tank Registration or C	losure
Is pit	or below-grade tan	k covered by a "general plan"? Yes	
Type of action	: Registration of a pit c	or below-grade tank [] Closure of a pit or be	low-grade tank 🛛
Operator: BP AMERICA PROD.	<u>CO.</u>	Telephone: (505)-326-9200	e-mail address:
Address: 200 ENERGY COURT. FA	ARMINGTON.	<u>NM 87410</u>	
Facility or well name: <u>CHAVEZ GC A #1</u> Country SAN IUAN Latitude 36,75634	Longitude 10	_API#:U45U8/08U/L 7.76332NAD: 1022 [ 1082 [2] su	or Qtr/QtrGSec3_T29NR_9W
County: On to on the Landae Convoice I		NAD: 1927 [] 1983 [] 50	mace Owner Federal 📋 State 📋 Private 🖾 Indian
<u>Pit</u>		Below-grade tank	
Type: Drilling Production Disposal S	EPARATOR	Volume:bbl_Type of fluid:	
		Construction materia:	$\mathbf{A}$
	······	Double-walled, with eak ditection? Yes	If <u>int</u> , explain why not.
Liner type: Synthetic [] Inicknessmil C			
		Less than 50 feet	(20 points)
Depth to ground water (vertical distance from botto	om of pit to seasonal	50 feet or more, but less than 100 feet	(10 points) <b>20</b>
high water elevation of ground water.)		100 feet or more	( 0 points)
Wellhead protection area: (Less than 200 feet from	a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other v	water sources.)	No	( 0 points) O
		Less than 200 feet	(20 points)
Distance to surface water: (horizontal distance to a	ll wetlands, playas,	200 feet or more, but less than 1000 feet	(10 points) 10
	eral watercourses.)		IU (Opoints)
irrigation canals, ditches, and perennial and ephemo	,	1000 feet or more	( o ponia)
irrigation canals, ditches, and perennial and ephemo		Ranking Score (Total Points)	30
f this is a pit closure: (1) attach a diagram of the fa	acility showing the pit's	1000 feet or more         Ranking Score (Total Points)         relationship to other equipment and tanks. (2)	) Indicate disposal location: (check the onsite box in
<b>f this is a pit closure:</b> (1) attach a diagram of the far	acility showing the pit's fsite, name of facility_B	1000 feet or more         Ranking Score (Total Points)         relationship to other equipment and tanks. (2         P CROUCH MESA LF         . (3) Attach a g	) Indicate disposal location: (check the onsite box is eneral description of remedial action taken including
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30-045-08168	36. (;	5654 × 101.	· (655L	VML	
	BLAGG ENG	GINEERING	, INC.	LOCATION NO:	B1756
CLIENT: 13P	P.O. BOX 87, BL	OOMFIELD	), NM 87413	8	15552 .
	(505) 6	32-1199	<u> </u>		15550
FIELD REPORT	: PIT CLOSUR	E VERIF	ICATION	PAGE No:	of
LOCATION: NAME: CHAV	EZ GC A WELL #:		: SEP	DATE STARTED:	2/10/06
QUAD/UNIT: & SEC: 3	TWP: 29N RNG: 9W P	M: NM CNTY: S	J ST: NM		713700
QTR/FOOTAGE: 1650 FNL	× 1650 FEL JUINE CO	NTRACTOR: HDI (	(ONOFRE)	SPECIALIST:	JCB
EXCAVATION APPROX	(. <u>60</u> FT. x <u>30</u> F	T. x <u>//</u> FT	DEEP. CUBI	CYARDAGE:	500±
DISPOSAL FACILITY: BP	CROUCH MIESA L.F.	REMEDIA	TION METHOD:	EXCAVATE	94 94
LAND USE: FEE RANCH	/	FEE	FC		MV
FIELD NOTES & REMAR	KS: PIT LOCATED APPF	ROXIMATELY _24	0 FT S	SBE FROM	WELLHEAD.
DEPTH TO GROUNDWATER:	O NEAREST WATER SOURC	E: >1000	NEAREST SURF		1000
NMOCD RANKING SCORE: 30	NMOCD TPH CLOSURE ST	D: <u>100</u> PF	PM		
SOIL AND EXCAVATION	ON DESCRIPTION:		OVM CALIB. REA	D. = <u>52.9</u> ppm	DE - 0.52
			TIME: 1530	am/6m) DATE:	2/15/06
SOIL TYPE: SAND / SILTY SA	NDI SILT SILTY CLAY CLAY	Y / GRAVEL / OTH	ER		·
SOIL COLOR:	DARK TAN		COHESIVE		
CONSISTENCY (NON COHESIVE SO	DILS): LOOSE / FIRM / DENSE / VE	RY DENSE	001120112	$\frown$	
PLASTICITY (CLAYS): NON PLAST	C SLIGHTLY PLASTIC / COHESIV	E / MEDIUM PLASTIC	HIGHLY PLASTIC	MW	KEGINEED
MOISTURE: DRY / SLIGHTLY MOIS	S): SOFT/FIRM/STIFF/VERY ST	IPER SATURATED			
DISCOLORATION/STAINING OBSER	VED: (YES) NO EXPLANATION -	REMOVED SOILS	WGRAF + B	LACK	
SAMPLE TYPE: (GRAB) COMPOSIT	E - # OF PTS.	ZSTRUNG IN	REMOVED	50105	
ADDITIONAL COMMENTS:	TRACELLOF TO	DEMONE TA	MACTEN SOUS	+ BOLOW 6	USE
Ercourtered ORIG	NAL PIT @ 240' S!	58°E OF Wel	Thead.	10 00100 0	
	·····	FIELD 418.1 CALC	ULATIONS		1
SCALE SAMP. TI	ME SAMP. ID LAB NO	). WEIGHT (g)	mL FREON DIL	LUTION READING	CALC. (ppm)
0FT					
			<u> </u>		F
		OVM			
	R	EADING			
TOLELL		(ppm)			
K m	(100 - 5)	414	2/10/06		
F	P1 3@		-1		
	<i>∞</i> → 5@			<u> </u>	
	10 (Se8'	0.7	Palielar		
	NO TO ACE	0.0	41900	7	
· · /	Wes	61		{	1
· · · · ·	5 (2) IU	SAMPLES			
A		ANALYSIS TIME			1
@@195' 555E) @@000-(555E)	ORIGINAL West	ПРИ 1430 Втби	2		Î
6255 561E5	pit	CL-			1
P.D. = PIT DEPRESSION; B.G. = BELOW T.H. = TEST HOLE; ~ = APPROX.; T.B. =	/ GRADE; B = BELOW	URSSED)			
TRAVEL NOTES:		ONSITE: 2	10-15/2006		
CALLOUT	•		10 . 57 2000		

revised: 09/04/02

#### BLAGG ENGINEERING INC.

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

February 14, 2006

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 Chavez GC A1 (G)Sec. 3 - T29N - R9W, 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 equipment modifications on February13, 2006 soils impacted with produced hydrocarbon were identified around a sub-grade tank. During removal of this tank, groundwater was found at a depth of approximately 10 feet below ground surface. Visual inspection indicated that potentially impacted soils were in contact with groundwater in the area of this sub-grade tank.

The Chavez GC A1 is located on private property near Turley, New Mexico. BP intends to address the impact by excavating contaminated soils and transporting them to the BP Crouch Mesa landfarm/compost facility. Following this remedial effort, the site will be placed on BP's groundwater monitoring program to quantify residual water quality.

Mr. Denny Foust of the NMOCD Aztec District office was notified via voice mail of this potential impact on February 14, 2006.

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

Respectfully: Blagg Engineering, Inc.

lifty C. Jusy

Jeffrey C. Blagg, P.E. President

cc: Denny Foust - NMOCD Aztec Don Brooks - BP SJ Op. Ctr.

File: GWrelease.wpd

### ENVIROTECH LABS

#### EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / BP W @ 8' 36244 15558 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	94034-010 02-17-06 02-15-06 02-15-06 02-16-06 02-17-06 8015 TPH
Parameter		Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5	- C10)	ND	0.2
Diesel Range (C10 -	C28)	ND	0.1
Total Petroleum Hydi	rocarbons	ND	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: Chavez GC A 1 Separator.

Analyst

May Buce Review

## ENVIROTECH LABS

#### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	W @ 8'	Date Reported:	02-17-06
Laboratory Number:	36244	Date Sampled:	02-15-06
Chain of Custody:	15558	Date Received:	02-15-06
Sample Matrix:	Soil	Date Analyzed:	02-17-06
Preservative:	Cool	Date Extracted:	02-16-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

		Det.	
1	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Benzene	ND	1.8	
Toluene	15.5	1.7	
Ethylbenzene	5.4	1.5	
p,m-Xylene	16.7	2.2	
o-Xylene	6.4	1.0	
Total BTEX	44.0		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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: Chavez GC A 1 Separator.

C. Analyst

ang Buce Review

#### ENVIROTE PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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#### Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	W @ 8'	Date Reported:	02 <b>-</b> 17-06
Lab ID#:	36244	Date Sampled:	02-15-06
Sample Matrix:	Soil	Date Received:	02-15-06
Preservative:	Cool	Date Analyzed:	02-16-06
Condition:	Cool and Intact	Chain of Custody:	15558
Parameter		Concentration (mg	/Kg)
Total Chloride		9.9	
Reference:	Standard Methods For The	e Examination of Water And Waste Wa	ter", 18th ed., 1992.
Comments:	Chavez GC A 1 Se	parator.	
	100		1

15558

### **CHAIN OF CUSTODY RECORD**

Client / Project Name	Project Location			·				AMETERS	<u> </u>		
BLAGG/BP	CHAVEZ GC	AI					5157 PAR				
Sampler: 1. C Bogg	Client No. 9403	4-010	o. of ainers	76	たろ	1			Remark	S	
Sample No./ Sample Sample Identification Date Time	Lab Number	Sample Matrix	Cont	FR	ES B	3					
W@B' 2/15/06 1430	36244	SOIL	(	×	$\times$	$\times$		SEPA	RATC	1	
		<u> </u>	1								
Relinquished by: (Signature)	2/5	Date Time R	eceived by:	(Signatu	ure) 0			2/	Date	11	Fime
Relinquished by: (Signature)	73	R	eceived by:	(Signati	ure)						
Relinquished by: (Signature)		R	eceived by:	(Signati	ure)						
	Fí		FCH		C			Sampl	e Receip	nt	
									Y	N	N/A
	F	5796 U.S. I Farmington, Nev	Highway w Mexico	64 8740	1			Received Intac			
	·	(505) 63	32-0615					Cool - Ice/Blue Id	e		

san juan reproduction 578-129

### PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

#### EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

Client:	QA/QC		Project #:		N/A
Sample ID:	02-17-06 QA/Q	С	Date Reported:		02-17-06
Laboratory Number:	36244		Date Sampled:		N/A
Sample Matrix:	Methylene Chlorid	de	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		02-17-06
Condition:	N/A		Analysis Reque	sted:	TPH
	I-Cal Date	I-Cal RF;	C-Cal RF;	% Difference	Accept. Range
Gasoline Range C5 - C10	02-04-05	1.0056E+003	1.0066E+003	0.10%	0 - 15%
Diesel Range C10 - C28	02-04-05	1.0006E+003	1.0026E+003	0.20%	0 - 15%
Blank Conc. (mg/L - mg/Kg)		Concentration		Detection Limit	
Gasoline Range C5 - C10	-nikonana akko ankisaren insena Kani, arriika Caka	ND	en a fan de Nederlânse de Antoine de Santon de Nederlânse oan de Nederlânse de Antoine de Antoine de Antoine de	0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range	
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%	
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%	
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

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:

QA/QC for Samples 36244 - 36246.

Man Bruce Review

## ENVIROTECH LABS

#### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

· · · · ·		N/A	P	Project #:		N/A
Sample ID:		02-17-BTEX QA/QC	C	Date Reported:		02-17-06
Laboratory Number	:	36244		ate Sampled:		N/A
Sample Matrix:		5011 N/A		vate Received:		N/A
Condition:		N/A N/A	L A	vale Analyzeo: Analysis:		BTEX
Calibration and		I-Cal RF:	C-Cal RF:	%Dfff.	Blank	Detect.
Detection Limi	its (ug/L)		Accept. Range	e 0 - 15%	Conc	Limit
Benzene		3.3143E+006	3.3209E+006	0.2%	ND	0.2
Toluene		3.3143E+006	3.3209E+006	0.2%	ND	0.2
Ethylbenzene		1.3592E+007	1.3619E+007	0.2%	ND	0.2
p,m-Xylene		4.8154E+007	4.8251E+007	0.2%	ND	0.2
o-Xylene		3.1896E+007	3.1960E+007	0.2%	ND	0.1
Duplicate Conc.	(ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Lim
Benzene		ND	ND	0.0%	0 - 30%	18
Toluene		15.5	15.4	0.6%	0 - 30%	1.0
Ethvibenzene		5.4	5.4	0.0%	0 - 30%	1.5
p.m-Xvlene		16.7	16.6	0.6%	0 - 30%	2.2
p,		10.1		0.0%	0 - 30%	1.0
o-Xylene		6.4	0.4			
o-Xylene Spike Conc. (ug/	/Kg)	6.4 Sample A	o.4 Amount Spiked	Spiked Sample	% Recovery	Accept Rang
o-Xylene Spike Conc. (ug/ Benzene	/Kg)	6.4 Sample A ND	o.4 Amount Spiked 5 50.0	Spiked Sample 49.9	% Recovery 99.8%	Accept Range 39 - 150
o-Xylene Spike Conc. (ug/ Benzene Toluene	/Kg)	6.4 Sample A ND 15.5	6.4 Armount Spiked 5 50.0 50.0	Spiked Sample 49.9 65.5	% Recovery 99.8% 100.0%	Accept Range 39 - 150 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene	/Kg)	6.4 Sample A ND 15.5 5.4	5.4 Amount Spiked 5 50.0 50.0 50.0	Spiked Sample 49.9 65.5 55.3	% Recovery 99.8% 100.0% 99.8%	Accept Rang 39 - 150 46 - 148 32 - 160
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene	/Kg)	6.4 Sample A ND 15.5 5.4 16.7	۰.4 Amount Spiked 5 50.0 50.0 100	5piked Sample 49.9 65.5 55.3 116	% Recovery 99.8% 100.0% 99.8% 99.7%	Accept Rang 39 - 150 46 - 148 32 - 160 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	/Kg)	6.4 Sample A ND 15.5 5.4 16.7 6.4	50.0 50.0 50.0 50.0 100 50.0	5piked Sample 49.9 65.5 55.3 116 56.4	% Recovery 99.8% 100.0% 99.8% 99.7% 100.0%	Accept Rang 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene ND - Parameter not	/Kg)	6.4 Sample A ND 15.5 5.4 16.7 6.4	50.0 50.0 50.0 50.0 100 50.0	Spiked Sample 49.9 65.5 55.3 116 56.4	99.8% 100.0% 99.7% 100.0%	Accept Rang. 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene ND - Parameter not References:	(Kg) detected at the state Method 5030B, Pu December 1996. Method 8021B, Ar	6.4 Sample A ND 15.5 5.4 16.7 6.4 ed detection limit.	50.0 50.0 50.0 50.0 100 50.0 50.0	Spiked Sample 49.9 65.5 55.3 116 56.4	99.8% 100.0% 99.8% 99.7% 100.0%	Accept Rang 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene ND - Parameter not References:	(Kg) detected at the state Method 5030B, Pu December 1996. Method 8021B, Ar Photoionization an	6.4 Sample A ND 15.5 5.4 16.7 6.4 ed detection limit. rge-and-Trap, Test Metho omatic and Halogenated V d/or Electrolytic Conductiv	50.0 50.0 50.0 50.0 100 50.0 50.0 volatiles by Gas Chro ity Detectors, SW-84	Spiked Sample 49.9 65.5 55.3 116 56.4	99.8% 100.0% 99.8% 99.7% 100.0%	Accept Range 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene ND - Parameter not References:	Kg) detected at the state Method 5030B, Pu December 1996. Method 8021B, Ar Photoionization an QA/QC for \$	6.4 Sample A ND 15.5 5.4 16.7 6.4 ed detection limit. sige-and-Trap, Test Metho pomatic and Halogenated V d/or Electrolytic Conductiv Samples 36244 -	Amount Spiked S 50.0 50.0 50.0 100 50.0 100 50.0 volatiles by Gas Chro vity Detectors, SW-84 <b>36246.</b>	Spiked Sample 49.9 65.5 55.3 116 56.4 lid Waste, SW-846, omatography Using 46, USEPA Decemb	% Recovery 99.8% 100.0% 99.8% 99.7% 100.0%	Accept Rang 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene ND - Parameter not References:	Additional detected at the state Method 5030B, Pu December 1996. Method 8021B, Arr Photoionization an QA/QC for S	6.4 Sample A ND 15.5 5.4 16.7 6.4 ed detection limit. arge-and-Trap, Test Metho omatic and Halogenated V d/or Electrolytic Conductiv Samples 36244 -	Amount Spiked S 50.0 50.0 50.0 100 50.0 100 50.0 volatiles by Gas Chro vity Detectors, SW-84 <b>36246.</b>	Spiked Sample 49.9 65.5 55.3 116 56.4 lid Waste, SW-846, omatography Using 46, USEPA Decemb	99.8% 100.0% 99.8% 99.7% 100.0% USEPA, ber 1996.	Accept Rang 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148 46 - 148
o-Xylene Spike Conc. (ug/ Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene ND - Parameter not References:	Method 5030B, Pu December 1996. Method 8021B, An Photoionization an QA/QC for S	6.4 Sample A ND 15.5 5.4 16.7 6.4 ed detection limit. and detection limit. set detection limit.	Amount Spiked S 50.0 50.0 50.0 100 50.0 100 50.0 volatiles by Gas Chro vity Detectors, SW-84 36246.	Spiked Sample 49.9 65.5 55.3 116 56.4 lid Waste, SW-846, omatography Using 46, USEPA Decemt	% Recovery 99.8% 100.0% 99.8% 99.7% 100.0% USEPA, ber 1996.	Accept Rang 39 - 150 46 - 148 32 - 160 46 - 148 46 - 148 46 - 148