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

,

4

.1

۲.

.

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application Type of action: Permit of a pit_closed-loop system, below-grade tank, or proposed alternative method
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinance:
Operator: BP AMERICA PRODUCTION COMPANY OGRID #:778
Address: 200 Energy Court, Farmington, NM 87401
Facility or well name: ARCHULETA GAS COM A 001B
API Number: 3004530189 OCD Permit Number:
U/L or Qtr/Qtr N Section 5.0 Township 29.0N Range 09W County: San Juan County
Center of Proposed Design: Latitude 36.74897 Longitude -107.80504 NAD: 1927 🗷 1983
Surface Owner: 🔲 Federal 🔲 State 🗷 Private 🗋 Tribal Trust or Indian Allotment
2 Pit: Subsection F or G of 19.15.17.11 NMAC RCVD DEC 6 '13 Temporary: Drilling Workover DIL CONS. DIV. Dermanent Emergency Cavitation P&A DIST. 3 Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other String-Reinforced
Below-grade tank: Subsection I of 19.15.17.11 NMAC (closure Plan submittal only) Volume: 95.0
5 Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

Chain link, six feet in height, two strands of barbed wire at top (Required it located within 1000 feet of a permanent residence, school, hospital, institution or church)

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify

¢

8

q

Netting	Subsection E of 19.15.17.11	NMAC	(Annlies to nerr	nanent nits and	nermanent one	n ton tanks)
Notting.	Subsection E of 19.15.17.11	INNAC		ianom pho anu	<i>DEI MANEI</i> II UDE	

Screen Netting Other____

Monthly inspections (If netting or screening is not physically feasible)

Signs: Subsection C of 19.15.17.11 NMAC

12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

Signed in compliance with 19.15.16.8 NMAC

Administrative Approvals and Exceptions.

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10 Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acce material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	opriate district approval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	🗌 Yes 🗌 No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark) - Topographic map; Visual inspection (certification) of the proposed site	📋 Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ NA
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗌 Yes 🗍 No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗋 Yes 🗌 No
Within a 100-year floodplain. - FEMA map	Yes 🗌 No

• ,	
11 <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attac Instructions: Each of the following items must be attached to the application. Please attached.</u>	
 Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Para Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirement Siting Criteria Compliance Demonstrations - based upon the appropriate requirement Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC 	nts of Paragraph (2) of Subsection B of 19.15.17.9 NMAC ents of 19.15.17.10 NMAC
 Operating and Maintenance Plan - based upon the appropriate requirements of 19.1 Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the and 19.15.17.13 NMAC 	
Previously Approved Design (attach copy of design) API Number:	or Permit Number:
12 <u>Closed-loop Systems Permit Application Attachment Checklist</u> : Subsection B of 19 Instructions: Each of the following items must be attached to the application. Please attached.	indicate, by a check mark in the box, that the documents are irrements of Paragraph (3) of Subsection B of 19.15.17.9 in the appropriate requirements of 19.15.17.10 NMAC 15.17.12 NMAC
	(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for c.	
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsecti Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.111 Leak Detection Design - based upon the appropriate requirements of 19.15.17.111 Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19. Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19. Monitoring and Inspection Plan Errosion Control Plan Closure Plan - based upon the appropriate requirements of 19.15. 14 Proposed Closure: 19.15.17.13 NMAC	on B of 19.15.17.9 NMAC tents of 19.15.17.10 NMAC 19.15.17.11 NMAC irrements of 19.15.17.11 NMAC NMAC requirements of 19.15.17.11 NMAC 15.17.12 NMAC nents of 19.15.17.11 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to Type: Drilling Workover Emergency Cavitation P&A Permane Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closure Burial On-site Trench Burial	nt Pit 🗵 Below-grade Tank 🗌 Closed-loop System
 ¹⁵ Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instr closure plan. Please indicate, by a check mark in the box, that the documents are atta. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cu Soil Backfill and Cover Design Specifications - based upon the appropriate requirem Re-vegetation Plan - based upon the appropriate requirements of Subsection I of I Site Reclamation Plan - based upon the appropriate requirements of Subsection G 	ched. 3 NMAC tents of Subsection F of 19.15.17.13 NMAC uttings) ements of Subsection H of 19.15.17.13 NMAC 9.15.17.13 NMAC

.

٠

16 Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.1 Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment facilities are required.	
Disposal Facility Name: Disposal Facility Permit Number:	
Disposal Facility Name: Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that <i>will not</i> be used for future s Yes (If yes, please provide the information below) No	ervice and operations?
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	AC
¹⁷ Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable so provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate of considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Ju demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	istrict office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No □ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No □ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	🗌 Yes 🗌 No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	. Yes 🗌 No
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	Yes No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗌 Yes 🗌 No
Within a 100-year floodplain. - FEMA map	🗋 Yes 🗌 No
 ¹⁸ On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 1 Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC 	

Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
 Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
 Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
 Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

9	Operator Application Certification:
	I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
	Name (Print): Jeffrey Peace Title: Field Environmental Advisor Signature: Date: 06/14/2010
	Signature:Date: <u>06/14/2010</u>
	e-mail address: Peace.Jeffrey@bp.com Telephone: _505-326-9479
ſ	20. OCD Approval: Dermit Application (including closure plant Closure Plant (only) - OCD Conditions (see attachment)
	OCD Representative Signature: the state of t
	Compliance officer
	Title Environnente Engineer OCD Permit Number:
	Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date:
	 <u>Closure Method</u>. <u>X</u> Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
	²³ <u>Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:</u> Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
	Disposal Facility Name: Disposal Facility Permit Number:
	Disposal Facility Name: Disposal Facility Permit Number:
	Were the closed-loop system operations and associated activities performed on or in areas that <i>will not</i> be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) No
	Required for impacted areas which will not be used for future service and operations:
	 Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation
l	Re-vegetation Application Rates and Seeding Technique
	 24. <u>Closure Report Attachment Checklist</u>: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits)
	Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure)
	 Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation
	Re-vegetation Application Rates and Seeding Technique
	Site Reclamation (Photo Documentation) On-site Closure Location: Latitude 36.74897 Longitude 167.80504 NAD: 1927 X 1983
ſ	25 Operator Closure Certification
	I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. Lalso certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan
	Name (Print): Jeff Peace Title: Field Environmental Advisor
	Name (Print): Jeff Peace Title: Field Environ montal Advisar Signature: 3 fill Peace Date: Name bar 19 2013 e-mail address: feace jeffrey @ bf.com Telephone: (505) 32 6-9479
	e-mail address: <u>peace</u> jeffrey @ bp.com Telephone: (505) 326-9479

.

•

.

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. Hun			-	<u>Sa</u>	anta Fe	e, NM 875	005				
			Rele	ease Notifi	cation	and Co	orrective A	ction			
·						OPERA	TOR	[] Initia	al Report	🛛 Final Report
Name of Co	mpany: B	P				Contact: Jef	f Peace				
Address: 20	0 Energy	Court. Farm	ington, N	M 87401		Telephone 1	No.: 505-326-94	179			
Facility Nar						· · · · · · · · · · · · · · · · · · ·	be: Natural gas v				
							8				······································
Surface Ow	ner: Priva	te		Mineral (Owner:	Fee			API No	<u>. 30045301</u>	89
				LOCA	ATIO	N OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	South Line	Feet from the	East/W	est Line	County: Sa	an Juan
N	5	29N	9W	840	South		2070	West			
		1									
		Lat	itude3	6.74897		_ Longitud	e 107.80504				
				NAT	TURE	OF REL	EASE				
Type of Rele			sampling	report			Release: N/A			Recovered: N	
Source of Re							lour of Occurrence	ce:	Date and	Hour of Disc	covery:
Was Immedia	ate Notice (·			If YES, To	Whom?				
		L	Yes _] No 🛛 Not R	equired						
By Whom?						Date and H	lour				
Was a Water	course Read	ched?	-	<u> </u>			olume Impacting	the Water	course.		
]Yes 🛛	No							
If a Watercou		mantad Dara	iha Euller			.l					
If a watercou	irse was im	pacted, Descr	ibe runy.								
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken * Sampli	ng of th	e soil heneath	the BGT was do	ne to ensi	ire no soil	impacts fro	m the BGT. Soil
							dard. Analysis re			i inipueto no	In the DOT. Son
,											
										,	
					moved a	and the area u	inderneath the BG	GT was ba	ckfilled a	nd compacte	ed. The low-profile
above-ground	l tank was p	placed over th	e site of th	e BGT.							-
						1					
							knowledge and u				
							nd perform correc arked as "Final R				
public nealth	or the envi	ionment. The	acceptanc	e of a C-141 rep	л by the		arked as Final R	eport do	es not rell	eve me oper	ator of hability

public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Jeff Perce	OIL CONSER	<u>VATION</u>	DIVISION
Printed Name: Jeff Peace	Approved by Environmental Specia	list:	
Title: Field Environmental Advisor	Approval Date:	Expiration D	Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:		Attached
Date: December 5, 2013 Phone: 505-326-9479			<u> </u>

* Attach Additional Sheets If Necessary

CLIENT: BP	P.O. BOX 87, E	NGINEERING, II BLOOMFIELD, N		API #:	189
		05) 632-1199		(if applicble): A	
FIELD REPORT:	(circle one): BGT CONFIRMATION	/ RELEASE INVESTIGATION /	OTHER:	PAGE #:1_ of	_1_
SITE INFORMATION				DATE STARTED: 06/1	3/13
QUAD/UNIT: N SEC: 5 TWP:	29N RNG: 9W PM	<u>1: NM CNTY: SJ</u>	ST: NM	DATE FINISHED:	
1/4 -1/4/FOOTAGE: 840'S / 2,070'		EI KHOP	N	ENVIRONMENTAL	
	PROD. FORMATION: MV	CONTRACTOR: MBF - K.	AMBROSE	SPECIALIST(S):	
REFERENCE POINT	WELL HEAD (W.H.) GP	s coord.:36.749	03 X 107.80479	GL ELEV.: <u>5,</u>	583'
1) 95 BGT (SW/SB)	GPS COORD,:	36.74897 X 107.80504	DISTANCE/BE	ARING FROM W.H.: 78', S	73W
2)				ARING FROM W.H.:	
3)				ARING FROM W.H.:	
4)			DISTANCE/BE		OVM I
SAMPLING DATA:					READING (ppm)
1) SAMPLE ID:95_BGT_5-pt. @ 3.				()	0.0
2) SAMPLE ID:					
3) SAMPLE ID:					
4) SAMPLE ID:					
SOIL DESCRIPTION		Y SAND SILT / SILTY CLAY	/ CLAY / GRAVEL / OT	"HER	
SOIL COLOR:					
COHESION (ALL OTHERS): NON COHESIVE (SLIGHTL CONSISTENCY (NON COHESIVE SOILS): LO				COHESIVE / MEDIUM PLASTIC / HIGHLY PL T / FIRM / STIFF / VERY STIFF / H.	
MOISTURE: DRY/SLIGHTLY MOIST MOIST / W			,	ANATION	
SAMPLE TYPE: GRAB (COMPOSITE) #					
DISCOLORATION/STAINING OBSERVED	YES / NO EXPLANATION -				
ANY AREAS DISPLAYING WETNESS: YES / NO					
APPARENT EVIDENCE OF A RELEASE O	••••••••••••••••••••••••••••••••••••••	YES/NO EXPLANATION :	· · · · · · · · · · · · · · · · · · ·		
ADDITIONAL COMMENTS: 95 BBL BGT					
SOIL IMPACT DIMENSION ESTIMATION	NA ft. X NA	ft.XNAft.	EXCAVATION ES	TIMATION (Cubic Yards) :	NA
		0 NEAREST SURFACE WATER		CD TPH CLOSURE STD: 100	ppm
SITE SKETCH		PLOT PLAN ci	rcle: attached	1 CALIB, READ. = 52.0 ppm	1
				1 CALIB. READ. = <u>52.0</u> ppm 1 CALIB. GAS = 100 ppm	NF - 0.JZ
				E: _ 7:50 (ampom DATE: _06/	
300 BBL				MISCELL. NOT	
PROD		<u>Ф</u>			ES
		⊕ ₩. H .	1-	VO: N1472533	
				o#: K: ZEVH01BGT2	
PBGTL T.B. ~ 3.5'				<u>. 22 4110 10012</u> U#:	
B.G.			I –	ermit date(s): 06/14/	10
				CD Appr. date(s): 05/10/	11
				nk OVM = Organic Vapor Mete D ppm = parts per million	er
			A	\sim	1
			X - S.P.D.	BGT Sidewalls Visible: Y / N	
NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATIO		BELOW, T.H. = TEST HOLE; ~ = APPROX	.; W.H. = WELL HEAD;	BGT Sidewalls Visible: Y / N	
T.B. = TANK BOTTOM; PBGTL = PREVIOUS BEL APPLICABLE OR NOT AVAILABLE; SW - SINGL			IG WALL; NA - NOT	Magnetic declination: 10	<u>Е</u>
TRAVEL NOTES: CALLOUT:		ONSITE: 06	/13/13		

٠

•

•

Laborat	ory, Inc.			Lab Order 1306615 Date Reported: 6/24/201	3
Matrix: S	Soil	Collection I	Date: 6/1	3/2013 7:45:00 AM	
Result	RL Qu	al Units	DF	Date Analyzed	Batch
RGANICS				Analyst	JME
ND	10	mg/Kg	1	6/19/2013 11:09:28 PM	7941
106	63-147	%REC	1	6/19/2013 11:09:28 PM	7941
:				Analyst	NSB
ND	4.7	mg/Kg	1	6/19/2013 12:49:59 AM	7950
99.3	80-120	%REC	1	6/19/2013 12:49:59 AM	7950
				Analyst	NSB
ND	0.047	mg/Kg	1	6/19/2013 12:49:59 AM	7950
ND	0.047	mg/Kg	1	6/19/2013 12:49:59 AM	7950
ND	0.047	mg/Kg	1	6/19/2013 12:49:59 AM	7950
ND	0.093	mg/Kg	1	6/19/2013 12:49:59 AM	7950
104	80-120	%REC	1	6/19/2013 12:49:59 AM	7950
				Analyst:	JRR
45	1.5	mg/Kg	1	6/18/2013 10:35:37 AM	7979
				Analyst:	jmb
ND	20	mg/Kg	1	6/18/2013	7969
	Matrix: S Result RGANICS ND 106 99.3 ND 99.3 ND ND ND ND ND 104 45	ND 10 106 63-147 ND 4.7 99.3 80-120 ND 0.047 ND 0.093 104 80-120 45 1.5	Client Sampl Collection I Matrix: SOIL Result RL Qual Units RGANICS ND 10 mg/Kg ND 10 mg/Kg 106 63-147 %REC ND 4.7 mg/Kg 99.3 80-120 %REC ND 0.047 mg/Kg 104 80-120 %REC 45 1.5 mg/Kg	Client Sample ID: 95 Collection Date: 6/1 Matrix: SOIL Received Date: 6/1 Result RL Qual Units DF RGANICS ND 10 mg/Kg 1 ND 10 mg/Kg 1 ND 4.7 mg/Kg 1 99.3 80-120 %REC 1 ND 0.047 mg/Kg 1 A5 1.5 mg/Kg 1	Date Reported: 6/24/201 Client Sample ID: 95 BGT 5-pt @ 3.5' Collection Date: 6/13/2013 7:45:00 AM Matrix: SOIL Received Date: 6/14/2013 10:00:00 AM Result RL Qual Units DF Date Analyzed RGANICS Analyst: ND 10 mg/Kg 1 6/19/2013 11:09:28 PM 106 63-147 %REC 1 6/19/2013 11:09:28 PM ND 10 mg/Kg 1 6/19/2013 11:09:28 PM ND 4.7 mg/Kg 1 6/19/2013 12:49:59 AM 99.3 80-120 %REC 1 6/19/2013 12:49:59 AM ND 0.047 mg/Kg 1 6/19/2013 12:49:59 AM ND 0.047 mg/Kg 1 6/19/2013 12:49:59 AM ND 0.047 mg/Kg 1 6/19/2013 12:49:59 AM ND 0.093 mg/Kg 1 6/19/2013 12:49:59 AM ND 0.093 mg/Kg 1 6/19/2013 12:49:59 AM ND

Analytical Report

•

•

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 1 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:Blagg EngineeringProject:Archuleta GC A #1B

Sample ID: MB-7979	SampType: MBLK	TestCode: EPA Method	300.0: Anions	,	
Client ID: PBS	Batch ID: 7979	RunNo: 11394			
Prep Date: 6/18/2013	Analysis Date: 6/18/2013	SeqNo: 322091	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Chloride	ND 1.5				
Chloride Sample ID: LCS-7979	ND 1.5 SampType: L CS	TestCode: EPA Method	300.0: Anions		
		TestCode: EPA Method RunNo: 11394	300.0: Anions	<u> </u>	
Sample ID: LCS-7979	SampType: LCS		300.0: Anions Units: mg/Kg	<u></u>	
Sample ID: LCS-7979 Client ID: LCSS	SampType: LCS Batch ID: 7979 Analysis Date: 6/18/2013	RunNo: 11394		RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 2 of 6

1306615 24-Jun-13

WO#:

QC SUMMARY REPORT

Hall Environmental	Analysis	Laboratory,	, Inc.
--------------------	----------	-------------	--------

Blagg Engineering **Client:** Archuleta GC A #1B **Project:**

,

_

Sample ID: MB-7969	SampType: MBLK	Te	stCode: EPA Metho	d 418.1: TPH			
Client ID: PBS	Batch ID: 7969		RunNo: 11364				
Prep Date: 6/17/2013	Analysis Date: 6/18/201	3	SeqNo: 321051	Units: mg/ł	٨g		
Analyte	Result PQL SPK	value_SPK Ref Val	%REC LowLim	t HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND 20						
Sample ID: LCS-7969	SampType: LCS	Te:	stCode: EPA Metho	d 418.1: TPH		,	
Client ID: LCSS	Batch ID: 7969		RunNo: 11364				
Prep Date: 6/17/2013	Analysis Date: 6/18/201	3	SeqNo: 321052	Units: mg/ł	۲g		
Analyte	Result PQL SPK	value_SPK Ref Val	%REC LowLim	t HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	98 20	100.0 0	97.7 8	0 120			
Sample ID: LCSD-7969	SampType: LCSD	Te	stCode: EPA Metho	d 418.1: TPH			
Client ID: LCSS02	Batch ID: 7969		RunNo: 11364				
Prep Date: 6/17/2013	Analysis Date: 6/18/201	3	SeqNo: 321053	Units: mg/ł	۲g		
Analyte	Result PQL SPK	value SPK Ref Val	%REC LowLim	t HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	99 20	100.0 0	99.0 8) 120	1.38	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD 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
- Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 3 of 6

1306615

WO#:

24-Jun-13

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering

Project: Archuleta GC A #1B

Sample ID: MB-7	7941	SampType: MBLK TestCode: EPA Method 8015D: Diesel Range Organics									
Client ID: PBS	;	Batch I	ID: 794	11	F	RunNo: 1	1331				
Prep Date: 6/17	7/2013 A	nalysis Da	te: 6/ 1	17/2013	S	eqNo: 3	20251	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	cs (DRO)	ND	10	-							
Surr: DNOP		9.0		10.00		89.7	63	147			
Sample ID: LCS	-7941	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015D: Diese	el Range C	Organics	
Client ID: LCS	S	Batch I	ID: 794	11	F	RunNo: 1	1331				
Prep Date: 6/1	7/2013 A	Analysis Da	te: 6/*	17/2013	S	SeqNo: 3	20252	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	cs (DRO)	40	10	50.00	0	79.1	77.1	128			
0 0100		4.0									
Surr: DNOP		4.3		5.000		85.5	63	147			
Surr: DNOP	6606-001AMS	4.3 SampTy	pe: MS		 Tes			147 8015D: Diese	el Range C)rganics	
		SampTy	pe: MS ID: 79 4	;			PA Method		el Range C)rganics	
Sample ID: 1306 Client ID: Batc	chQC	SampTy	ID: 794	 ; \$1	F	tCode: El	PA Method 1393		-	Organics	
Sample ID: 1306 Client ID: Batc	chQC 7/2013 A	SampTy Batch	ID: 794	\$1 20/2013	F	tCode: El RunNo: 1 SeqNo: 3	PA Method 1393	8015D: Diese	-	Prganics RPDLimit	Qual
Sample ID: 1306 Client ID: Batc Prep Date: 6/1	chQC 7/2013 A	SampTy Batch I Analysis Da	ID: 79 4 te: 6/ 2	\$1 20/2013	ਜ S	tCode: El RunNo: 1 SeqNo: 3:	PA Method 1393 22846	8015D: Diese Units: mg/K	g	-	Qual S
Sample ID: 1306 Client ID: Batc Prep Date: 6/1 Analyte	chQC 7/2013 A	SampTy Batch I Analysis Da Result	ID: 79 4 te: 6/2 PQL	31 20/2013 SPK value	F S SPK Ref Val	tCode: EI RunNo: 1 SeqNo: 3: %REC	PA Method 1393 22846 LowLimit	8015D: Diese Units: mg/K HighLimit	g	-	
Sample ID: 1306 Client ID: Batc Prep Date: 6/1 Analyte Diesel Range Organic	chQC 7/2013 A cs (DRO)	SampTy Batch I Analysis Da <u>Result</u> 28	ID: 794 te: 6/2 PQL 10	11 20/2013 SPK value 50.00 5.000	F S SPK Ref Val 0	tCode: El RunNo: 1 SeqNo: 3 %REC 55.7 36.3	PA Method 1393 22846 LowLimit 61.3 63	8015D: Diese Units: mg/K HighLimit 138	íg %RPD	RPDLimit	S
Sample ID: 1306 Client ID: Batc Prep Date: 6/1 Analyte Diesel Range Organic Surr: DNOP Sample ID: 1306	chQC 7/2013 A cs (DRO)	SampTy Batch Analysis Da Result 28 1.8 SampTy	ID: 794 te: 6/2 PQL 10	31 20/2013 SPK value 50.00 5.000	F S SPK Ref Val 0 Tes	tCode: El RunNo: 1 SeqNo: 3 %REC 55.7 36.3	PA Method 1393 22846 LowLimit 61.3 63 PA Method	8015D: Diese Units: mg/K HighLimit 138 147	íg %RPD	RPDLimit	S
Sample ID: 1306 Client ID: Batc Prep Date: 6/1 Analyte Diesel Range Organic Surr: DNOP Sample ID: 1306	chQC 7/2013 A cs (DRO) 5606-001AMSD chQC	SampTy Batch I Analysis Da Result 28 1.8 SampTy	ID: 794 te: 6/ 2 PQL 10 pe: MS ID: 79 4	31 20/2013 SPK value 50.00 5.000 5.000	F S SPK Ref Val 0 Tes F	tCode: EI RunNo: 1 SeqNo: 3: %REC 55.7 36.3 tCode: EI	PA Method 1393 22846 LowLimit 61.3 63 PA Method 1393	8015D: Diese Units: mg/K HighLimit 138 147	ég %RPD el Range C	RPDLimit	S
Sample ID: 1306 Client ID: Batc Prep Date: 6/1 Analyte Diesel Range Organic Surr: DNOP Sample ID: 1306 Client ID: Batc	chQC 7/2013 A cs (DRO) 5606-001AMSD chQC 7/2013 A	SampTy Batch Analysis Da Result 28 1.8 SampTy Batch	ID: 794 te: 6/ 2 PQL 10 pe: MS ID: 79 4	31 20/2013 SPK value 50.00 5.000 5.000	F S SPK Ref Val 0 Tes F	tCode: El RunNo: 1 SeqNo: 3 %REC 55.7 36.3 tCode: El RunNo: 1	PA Method 1393 22846 LowLimit 61.3 63 PA Method 1393	8015D: Diese Units: mg/K HighLimit 138 147 8015D: Diese	ég %RPD el Range C	RPDLimit	S
Sample ID: 1306 Client ID: Batc Prep Date: 6/1 Analyte Diesel Range Organic Surr: DNOP Sample ID: 1306 Client ID: Batc Prep Date: 6/1	chQC 7/2013 A cs (DRO) 5606-001AMSD chQC 7/2013 A	SampTy Batch I Analysis Da Result 28 1.8 SampTy Batch I Analysis Da	ID: 794 te: 6/ 2 PQL 10 pe: MS ID: 794 te: 6 /2	31 20/2013 SPK value 50.00 5.000 5.000	F S SPK Ref Val 0 Tes F S	tCode: EI RunNo: 1 SeqNo: 3 %REC 55.7 36.3 tCode: EI RunNo: 1 SeqNo: 3	PA Method 1393 22846 LowLimit 61.3 63 PA Method 1393 22848	8015D: Diese Units: mg/K HighLimit 138 147 8015D: Diese Units: mg/K	g %RPD el Range C	RPDLimit Organics	S S

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 4 of 6

1306615

WO#:

24-Jun-13

QC SUMMARY REPORT

Hall	Environmenta	l Analysis	s Lal	boratory,	Inc.

Client:Blagg EngineeringProject:Archuleta GC A #1B

										<u> </u>
Sample ID: MB-7950	SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range									
Client ID: PBS	Batch	ID: 79	50	F	RunNo: 1	1374				
Prep Date: 6/17/2013	Analysis D	ate: 6/	18/2013	S	SeqNo: 3	21775	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0						-		
Surr: BFB	960		1000		95.8	80	120			
Sample ID: LCS-7950	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
Client ID: LCSS	Batch	ID: 79	50	F	RunNo: 1	1374				
Prep Date: 6/17/2013	Analysis D	ate: 6 /	18/2013	S	SeqNo: 3	21782	Units: mg/k	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	62.6	136			
Surr: BFB	1000		1000		103	80	120			
Sample ID: 1306528-001AMS	SampT	ype: MS	S [']	Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
Sample ID: 1306528-001AMS Client ID: BatchQC	•	ype: MS ID: 79			tCode: El RunNo: 1		8015D: Gase	oline Rang	e	
•	•	ID: 79	50	F		1374	8015D: Gase	5	e	
Client ID: BatchQC	Batch	ID: 79	50 18/2013	F	RunNo: 1 SeqNo: 3	1374		5	e RPDLimit	Qual
Client ID: BatchQC Prep Date: 6/17/2013	Batch Analysis D	i ID: 79 ate: 6/	50 18/2013	F	RunNo: 1 SeqNo: 3	1374 21786	Units: mg/ł	<g< td=""><td></td><td>Qual</td></g<>		Qual
Client ID: BatchQC Prep Date: 6/17/2013 Analyte	Batch Analysis D Result	ate: 6/	50 18/2013 SPK value	F S SPK Ref Val	RunNo: 1 SeqNo: 3 %REC	1374 21786 LowLimit	Units: mg// HighLimit	<g< td=""><td></td><td>Qual</td></g<>		Qual
Client ID: BatchQC Prep Date: 6/17/2013 Analyte Gasoline Range Organics (GRO)	Batch Analysis D Result 27 1000	ate: 6/	50 18/2013 SPK value 24.11 964.3	F S SPK Ref Val 0	RunNo: 1 SeqNo: 3 %REC 114 106	1374 21786 LowLimit 76 80	Units: mg/ł HighLimit 156	(g %RPD	RPDLimit	Qual
Client ID: BatchQC Prep Date: 6/17/2013 Analyte Gasoline Range Organics (GRO) Surr: BFB	Batch Analysis D Result 27 1000 SampT	ate: 6 / PQL 4.8	50 18/2013 SPK value 24.11 964.3 5D	F S SPK Ref Val 0 Tes	RunNo: 1 SeqNo: 3 %REC 114 106	1374 21786 LowLimit 76 80 PA Method	Units: mg// HighLimit 156 120	(g %RPD	RPDLimit	Qual
Client ID: BatchQC Prep Date: 6/17/2013 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: 1306528-001AMSE	Batch Analysis D Result 27 1000 SampT	ype: MS	50 18/2013 SPK value 24.11 964.3 5D 50	F S SPK Ref Val 0 Tes F	RunNo: 1 SeqNo: 3 %REC 114 106 tCode: El	1374 21786 LowLimit 76 80 PA Method 1374	Units: mg// HighLimit 156 120	(g %RPD Dine Rang	RPDLimit	Qual
Client ID: BatchQC Prep Date: 6/17/2013 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: 1306528-001AMSE Client ID: BatchQC	Batch Analysis D Result 27 1000 SampT Batch	ype: MS	50 18/2013 SPK value 24.11 964.3 50 50 18/2013	F S SPK Ref Val 0 Tes F	RunNo: 1 SeqNo: 3 %REC 114 106 tCode: EI RunNo: 1 SeqNo: 3	1374 21786 LowLimit 76 80 PA Method 1374	Units: mg// HighLimit 156 120 8015D: Gas o	(g %RPD Dine Rang	RPDLimit	Qual
Client ID: BatchQC Prep Date: 6/17/2013 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: 1306528-001AMSE Client ID: BatchQC Prep Date: 6/17/2013	Batch Analysis D Result 27 1000 D SampT Batch Analysis D	AlD: 79 : ate: 6 / <u>PQL</u> 4.8 ype: MS ID: 79 : ate: 6 /	50 18/2013 SPK value 24.11 964.3 50 50 18/2013	F S SPK Ref Val 0 Tes F S	RunNo: 1 SeqNo: 3 %REC 114 106 tCode: EI RunNo: 1 SeqNo: 3	1374 21786 LowLimit 76 80 PA Method 1374 21787	Units: mg/k HighLimit 156 120 8015D: Gaso Units: mg/k	(g %RPD bline Rang	RPDLimit e	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSD limit
- R RPD 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 5 of 6

1306615

WO#:

24-Jun-13

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client:Blagg EngineeringProject:Archuleta GC A #1B

.

Sample ID: MB-7950	Sampi	Гуре: МВ	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batcl	h ID: 79	50	F	RunNo: 11374					
Prep Date: 6/17/2013	Analysis [Date: 6/ 1	18/2013	SeqNo: 321840			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			
Sample ID: LCS-7950	SampT	Гуре: L C	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 79 !	50	F	RunNo: 1	1374				
Prep Date: 6/17/2013	Analysis [Date: 6/	18/2013	5	SeqNo: 3	21844	Units: mg/	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			
Sample ID: 1306605-001AM	1S SampT	Гуре: МS	;	Tes	tCode: Ef	PA Method	8021B: Vola	tiles		
Client ID: BatchQC	Batcl	h ID: 79	50	F	RunNo: 1	1425				
Prep Date: 6/17/2013	Analysis E)ate: 6 /1	19/2013	S	SeqNo: 32	23060	Units: mg/M	(g		
Analyte	n "	PQL	SDK value	SPK Ref Val		LowLimit	Llight imit			
	Result	PQL			%REC	LOWLINI	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.24	0.9407	0.07302	110	67.3	145	%RPD	RPDLimit	Qual
	1.1 3.2	0.24 0.24		0.07302 1.422	110 188			<u>%RPD</u>	RPDLimit	s
Toluene	1.1	0.24	0.9407	0.07302	110	67.3	145	%RPD	RPDLimit	s s
Toluene Ethylbenzene	1.1 3.2	0.24 0.24	0.9407 0.9407	0.07302 1.422	110 188	67.3 66.8	145 144	%RPD	RPDLimit	s
Toluene Ethylbenzene	1.1 3.2 3.9	0.24 0.24 0.24	0.9407 0.9407 0.9407	0.07302 1.422 1.982	110 188 209	67.3 66.8 61.9	145 144 153	%RPD	RPDLimit	s s
Toluene Ethylbenzene Xylenes, Total	1.1 3.2 3.9 14 5.5	0.24 0.24 0.24	0.9407 0.9407 0.9407 2.822 4.704	0.07302 1.422 1.982 7.154	110 188 209 228 117	67.3 66.8 61.9 65.8 80	145 144 153 149		RPDLimit	s s
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	1.1 3.2 3.9 14 5.5 ISD SampT	0.24 0.24 0.24 0.47	0.9407 0.9407 0.9407 2.822 4.704	0.07302 1.422 1.982 7.154 Tes	110 188 209 228 117	67.3 66.8 61.9 65.8 80 PA Method	145 144 153 149 120		RPDLimit	s s
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 1306605-001AM	1.1 3.2 3.9 14 5.5 ISD SampT	0.24 0.24 0.24 0.47 Type: MS	0.9407 0.9407 0.9407 2.822 4.704	0.07302 1.422 1.982 7.154 Tes	110 188 209 228 117 tCode: EF	67.3 66.8 61.9 65.8 80 PA Method 1425	145 144 153 149 120	iles	RPDLimit	s s
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 1306605-001AM Client ID: BatchQC	1.1 3.2 3.9 14 5.5 ISD SampT Batch	0.24 0.24 0.24 0.47 Type: MS	0.9407 0.9407 0.9407 2.822 4.704 6D 50 19/2013	0.07302 1.422 1.982 7.154 Tes	110 188 209 228 117 stCode: EF	67.3 66.8 61.9 65.8 80 PA Method 1425	145 144 153 149 120 8021B: Volat	iles	RPDLimit	s s
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 1306605-001AM Client ID: BatchQC Prep Date: 6/17/2013 Analyte	1.1 3.2 3.9 14 5.5 ISD SampT Batch Analysis D	0.24 0.24 0.24 0.47 Type: MS h ID: 795 Date: 6 /1	0.9407 0.9407 0.9407 2.822 4.704 6D 50 19/2013	0.07302 1.422 1.982 7.154 	110 188 209 228 117 stCode: EF RunNo: 11 SeqNo: 32	67.3 66.8 61.9 65.8 80 PA Method 1425 23061	145 144 153 149 120 8021B: Volat	iles g		S S S
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 1306605-001AM Client ID: BatchQC Prep Date: 6/17/2013 Analyte Benzene	1.1 3.2 3.9 14 5.5 ISD SampT Batch Analysis D Result	0.24 0.24 0.24 0.47 Fype: MS h ID: 795 Date: 6 /1 PQL	0.9407 0.9407 2.822 4.704 6D 50 19/2013 SPK value	0.07302 1.422 1.982 7.154 Tes F SPK Ref Val	110 188 209 228 117 ttCode: EF RunNo: 1 ⁴ SeqNo: 32 %REC	67.3 66.8 61.9 65.8 80 PA Method 1425 23061 LowLimit	145 144 153 149 120 8021B: Volat Units: mg/K HighLimit	iles g %RPD	RPDLimit	S S S
Sample ID: 1306605-001AM Client ID: BatchQC Prep Date: 6/17/2013	1.1 3.2 3.9 14 5.5 ISD SampT Batch Analysis D Result 1.1	0.24 0.24 0.24 0.47 Fype: MS h ID: 795 Date: 6 /1 PQL 0.23	0.9407 0.9407 2.822 4.704 50 19/2013 SPK value 0.9398	0.07302 1.422 1.982 7.154 Tes F SPK Ref Val 0.07302	110 188 209 228 117 ttCode: EF RunNo: 11 SeqNo: 32 %REC 106	67.3 66.8 61.9 65.8 80 PA Method 1425 23061 LowLimit 67.3	145 144 153 149 120 8021B: Volat Units: mg/K HighLimit 145	iles g %RPD 3.75	RPDLimit 20	S S Qual
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 1306605-001AM Client ID: BatchQC Prep Date: 6/17/2013 Analyte Benzene Foluene	1.1 3.2 3.9 14 5.5 ISD SampT Batch Analysis D <u>Result</u> 1.1 3.2	0.24 0.24 0.24 0.47 Fype: MS h ID: 79 Date: 6 /1 PQL 0.23 0.23	0.9407 0.9407 2.822 4.704 6D 50 19/2013 SPK value 0.9398 0.9398	0.07302 1.422 1.982 7.154 Tes F SPK Ref Val 0.07302 1.422	110 188 209 228 117 ttCode: EF RunNo: 11 SeqNo: 32 %REC 106 185	67.3 66.8 61.9 65.8 80 PA Method 1425 23061 LowLimit 67.3 66.8	145 144 153 149 120 8021B: Volat Units: mg/K HighLimit 145 144	iles 9 %RPD 3.75 0.958	RPDLimit 20 20	S S Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 6 of 6

24-Jun-13

1306615

WO#:

			stody Record	Turn-Around	Time:				- 2		Ŀ			Fr	VV	TR	20	NR	ИF	NT	Al	
Client:	BAG	6 E	yineary Inc.	Standard		l														TO		1
	RP	Am	tran 0	Project Name	e:	∧ ±∕	6.7		\$ \$	1994 [*]	,	www	.hall	envi	ronn	nent	al.co	m				
Mailing	Address	P.O.	Bex 87	ARCHUE	PA-6C	A ·	15		49	01 H	awki	ns Ni	E -	Albu	Jque	erque	e, NI	VI 87	′109			
Ta	xoon	fockl	NM 87413	Project #:				1	T€	əl. 50	5-34	5-39	75	Fa	ax {	505-:	345-	4107	7			
Phone		505	-632-1199						ې مېر کې		3	។ ភ្លំ លោក ៖	- Ai	ňaly	sis l	Reqi	uest			*****		n Age
email o	r Fax#:			Project Mana	iger:			5	nly)	ହ	Τ		T		0 ₄)		, ,					
QA/QC I	Package: dard		Level 4 (Full Validation)		Bree				(Gas o	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			SIMS)		PO ₄ .S	PCB's						
Accredi		□ Othe	r	On lice.	I - BLAC	Mel No.			+ TPH	RO / DF	18.1)		8270		D ₃ ,NO ₂	s / 8082		A)				or N)
	(Type)			Samplestem	perature				B	0	od 4	od 5	5 2	etals	Ň	cides	F	ş	8			E
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	います。 1910年1月 1月 1月 1月 1月	AL No - P)/m(c//S	BTEX + FI	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MIRC)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	CHLORDE			Air Bubbles (Y or N)
13/3	0745	(oil	95 BGT 5-100 32	40221	lac		-001	X		X	X								X			+
					·																	\uparrow
		_						+-														+
							<u> </u>					-										\uparrow
					<u> </u>								-+	1	-							+
								+			-	\uparrow				\neg						+
						<u>† </u>	·	+				\uparrow	\rightarrow				,					+
_	<u> </u>			<u> </u>		<u> </u>		+				\neg	\dashv	-+	-+							+
						<u> </u>		+			\neg								+	\uparrow		╋
						<u> </u>		1-			-+	-										+
														\neg			_				-	+
, Date:	Time: 1352	Relinquish	ed by: Pf By y	Received by:	Wales	Date	Time	Rer	nark		u	ß	3P	<u> </u> _			I	Į	Ł		1	
Date:	Time: (131	Relanquish	edby:	Received by:	1N	Date	Time 10°0(UL HK			EV T	ill Za	011 D	tsei R					
" "		samples sub	mitted to Hall Environmental may be subc	ontracted to other a	ccredited aboratorie	es. This sen	ves as notice of the	is possi	bility.					vill be	clearly	y notat	ted on	the ar	nalytica	l report.		

•

.

,

HALL ENVIRONMENTAL ANALYSIS LABORATORY

•

.

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

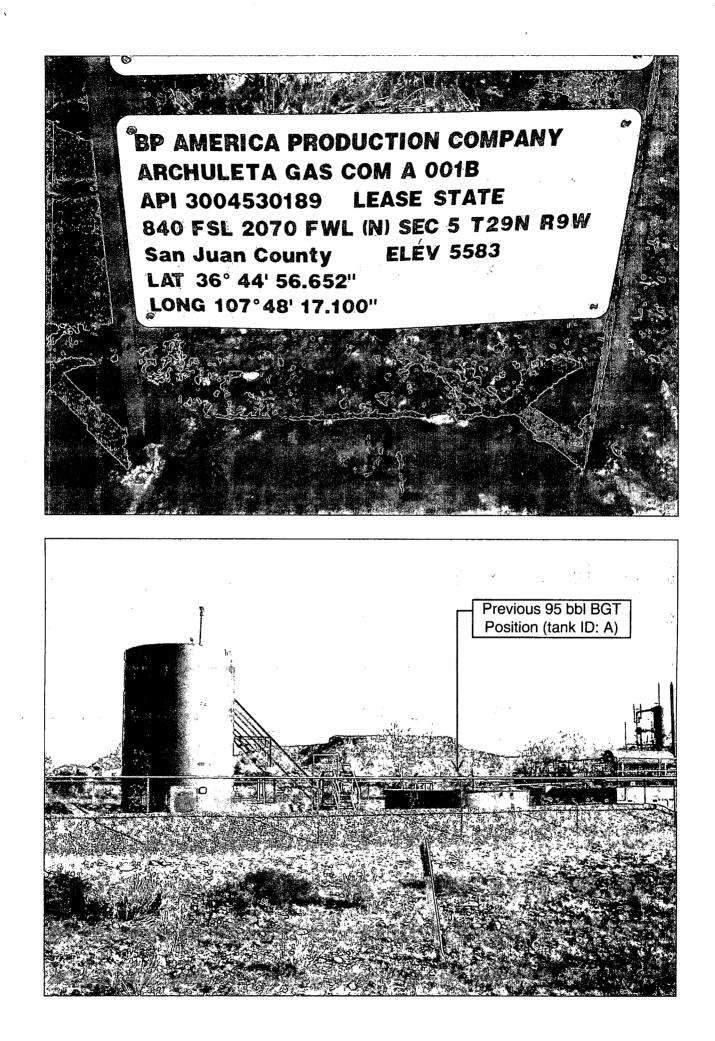
Sample Log-In Check List

Client Name: BLAGG	Work Order Numbe	r: 1306615		RcptNo: 1	
Received by/date: MCA	00/14/13				
Logged By: Michelle_Garcia	6/14/2013 10:00:00 A	M	Murille Gan	un	
Completed By: Michelle Garcia Reviewed By:	6/14/2013 3:16:59 PM	n	Microlls Gon Microlls Gon	ur)	
Chain of Custody					
1. Custody seals intact on sample bottles?		Yes	No	Not Present 🗸	
2. Is Chain of Custody complete?		Yes 🖌	No	Not Present	
3. How was the sample delivered?		Courier			
<u>Log In</u>					
4. Was an attempt made to cool the sample	es?	Yes 🖌	No	NA	
5. Were all samples received at a temperat	ure of >0° C to 6.0°C	Yes 🗸	No	NA	
6. Sample(s) in proper container(s)?		Yes 🗸	No		
7. Sufficient sample volume for indicated te	st(s)?	Yes 🗸	No		
8. Are samples (except VOA and ONG) pro	perly preserved?	Yes 🗸	No		
9. Was preservative added to bottles?		Yes	No 🗸	NA	
10.VOA vials have zero headspace?		Yes	No	No VOA Vials 🗸	
11. Were any sample containers received br	roken?	Yes	No 🗸	# of preserved bottles checked	
12. Does paperwork match bottle labels?		Yes 🖌	No	for pH:	unloss notos
(Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chair		Yes 🗸	No	Adjusted?	2 unless noted
14. Is it clear what analyses were requested?	-	Yes 🗸	No		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸	No	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancies w	ith this order?	Yes	No i i	NA 🗸	
Person Notified:	Date:		and a state of the	1	
By Whom:	Via:	eMail	Phone Fax	In Person	
Regarding:		annan ar far ta ga an	an a	an na mananan mananan ara ang ang ang ang ang ang ang ang ang an	
Client Instructions:		••••••••••••••••••••••••••••••••••••••			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



BP AMERICA PRODUCTION COMPANY SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

RCVD DEC 6'13 OIL CONS. DIV.

<u>Archuleta Gas Com A 1B</u> <u>API No. 3004530189</u> <u>Unit Letter N, Section 5, T29N, R9W</u>

DIST. 3

This plan will address the standard protocols and procedures for closure of below-grade tanks (BGTs) on BP America Production Company (BP) well sites. As stipulated in Paragraph A of 19.15.17.13 NMAC, BP shall close a BGT within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the New Mexico Oil Conservation Division (NMOCD) requires because of imminent danger to fresh water, public health, safety or the environment. If deviations from this plan are necessary, any specific changes will be included on form C-144 and approved by the NMOCD. BP shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofit with a BGT that complies with the BP NMOCD approved BGT design attached to the BP Design and Construction Plan. BP shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not previously retrofitted to comply with the BP NMOCD approve BGT Design attached to the BP Design and Construction Plan, prior to any sale or change in operator pursuant to 19.15.9.9 NMAC. BP shall close the permitted BGT within 60 days of cessation of the BGTs operation or as required by the transitional provisions of Subsection B, D, or E of 19.15.17.17 NMAC.

General Closure Plan

 BP shall notify the surface owner by certified mail that it plans to close a BGT. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.
 No notice was made due to mis-understanding of the notice requirements. BP did not think notice was necessary if BGT replaced with LPT, but realizes notice is required for any BGT closure. Closure notices will be made for all BGT closures

from this point forward.

2. BP shall notify the division District III office verbally or by other means at least 72 hours, but not more than one (1) week, prior to any closure operation. The notice shall include the operator's name, and the location to be closed by unit letter, section, township and range. If the BGT closure is associated with a particular well, then the notice shall also include the well's name, number and API number.

No notice was made due to mis-understanding of the notice requirements. BP did not think notice was necessary if BGT replaced with LPT, but realizes notice is required for any BGT closure. Closure notices will be made for all BGT closures from this point forward.

- 3. BP shall remove liquids and sludge from the BGT prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. The facilities to be used are:
 - a. BP Crouch Mesa Landfarm, Permit NM-02-003 (Solids)
 - b. JFJ Landfarm, Permit NM-01-010(B) (Solids and Sludge)
 - c. Basin Disposal, Permit NM-01-0005 (Liquids)
 - d. Envirotech Inc Soil Remediation Facility, Permit NM-01-0011 (Solids and Sludge)
 - e. BP Operated E.E. Elliott SWD #1, API 30-045-27799 (Liquids)
 - f. BP Operated 13 GCU SWD #1, API 30-045-28601 (Liquids)
 - g. BP Operated GCU 259 SWD, API 30-045-20006 (Liquids)
 - h. BP Operated GCU 306 SWD, API 30-045-24286 (Liquids)
 - i. BP Operated GCU 307 SWD, API 30-045-24248 (Liquids)
 - j. BP Operated GCU 328 SWD, API 30-045-24735 (Liquids)
 - k. BP Operated Pritchard SWD #1, API 30-045-28351 (Liquids)

All liquids and sludge in the BGT were removed and sent to one of the above NMOCD approved facilities for disposal.

4. BP shall remove the BGT and dispose of it in a NMOCD approved facility or recycle, reuse, or reclaim it in a manner that the NMOCD approves. If a liner is present and must be disposed of it will be cleaned by scraping any soils or other attached materials on the liner to a de minimus amount and disposed at a permitted solid waste facility, pursuant to Subparagraph (m) of Paragraph (1) of Subsection C of 19.15.35.8 NMAC. Documentation as to the final disposition of the removed BGT will be provided in the final closure report.

The BGT was transported to a storage area for sale and re-use.

5. BP shall remove any on-site equipment associated with a BGT unless the equipment is required for well production.

All equipment associated with the BGT has been removed.

6. BP shall test the soils beneath the BGT to determine whether a release has occurred. BP shall collect at a minimum: a five (5) point composite sample and individual grab samples from any area that is wet, discolored or showing other evidence of a release and analyze for BTEX, TPH and chlorides. The testing methods for those constituents are as follows;

Constituents	Testing Method	Release Verification	Sample
		(mg/Kg)	results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	ND
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	ND
TPH	US EPA Method SW-846 418.1	100	ND
Chlorides	US EPA Method 300.0 or 4500B	250 or background	45

Notes: mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons. Other EPA methods that the division approves may be applied to all constituents listed. Chloride closure standards will be determined by which ever concentration level is greatest. Soil under the BGT was sampled and TPH, BTEX and chloride levels were below the stated limits. Sampling data is attached.

- BP shall notify the division District III office of its results on form C-141.
 C-141 is attached.
- If it is determined that a release has occurred, then BP will comply with 19.15.30 NMAC and 19.15.29 NMAC, as appropriate.
 Sampling results indicate no release occurred.
- 9. If the sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BP shall backfill the excavation, with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover, re-contour and re-vegetate the location. The location will be reclaimed if it is not with in the active process area

The area under the BGT was backfilled with clean soil. It is still within the active area and is covered by the LPT.

10. BP shall reclaim the BGT location and all areas associated with the BGT including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. BP shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, re-contour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

The area under the BGT is covered by the LPT. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.

11. The soil cover for closures where the BGT has been removed or remediated to the NMOCD's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. The soil cover will be constructed to the site's existing grade and all practicable efforts will be made to prevent ponding of water and erosion of the cover material.

The area under the BGT is covered by the LPT. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.

12. BP shall seed the disturbed area the first growing season after closure of the BGT. Seeding will be accomplished by drilling on the contour whenever practical or by other division-approved methods. Vegetative cover will be, at a minimum, 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation), consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.

The area under the BGT is covered by the LPT. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation. 13. BP shall seed, plant and re-seed pursuant to Paragraph (3) of Subsection I of 19.15.17.13 NMAC, until the location successfully achieves the required vegetative cover.

BP will seed the area when the well is plugged and abandoned.

14. Pursuant to Paragraph (5) of Subsection I of 19.15.17.13 NMAC, BP shall notify the NMOCD when it has seeded or planted and when it successfully achieves revegetation.

BP will notify NMOCD when re-vegetation is successful.

۱.

. .

- 15. Within 60 days of closure completion, BP shall submit a closure report on NMOCD's form C-144, and will include the following;
 - a. proof of closure notification (surface owner and NMOCD)
 - b. sampling analytical reports; information required by 19.15.17 NMAC;
 - c. disposal facility name and permit number
 - d. details on back-filling, capping, covering, and where applicable re-vegetation application rates and seeding techniques and
 - e. site reclamation, photo documentation. Closure report on C-144 form is included.
- 16. BP shall certify that all information in the report and attachments is accurate, truthful, and compliant with all applicable closure requirements and conditions specified in the approved closure plan.

Certification section of C-144 has been completed.

.. .