WORLD-WIDE ENVIRONMENTAL SPECIALISTS



PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805 E-MAIL: cbrunson@bbcinternational.com



By OCD District 1 at 10:33 am, Aug 18, 2015

**APPROVED** Conditional By OCD District 1 at 10:33 am, Aug 18, 2015

# OXY – SHU #172 INJECTION LINE

1. SP5-SP7 will be dealt with once the site is closed.

## **REMEDIATION PLAN**

OXY will surface scrape the area covered by sample points SP1-SP4 as depicted on the following site diagram. No action is needed in the trench near sample points SP5 – SP7. All excavated materials will be disposed of at an NMOCD-approved disposal facility.

The site will then be backfilled with clean soil.

N ↑ Оху

## SHU #172 Injection line



NE ¼, Section 9, T19S, R38E

Lea County, NM

N 32.68019° W 103.147789°

API# 30-025-28543

BBC International, Inc.					
Оху					
SHU #172 I	njection line				
Date: 07/15/2015	DRWG by: K. Purvis				
NOT TO SCALE	File: Oxy 2015				



Section Quarters

## Oxy SHU #172 Injection line



## Laboratory Analytical Results Summary SHU #172 Injection Line

		Sample		SP1 @ 1'	
Analyte	Method	Date	7/20/15	7/20/15	
			mg/Kg	mg/Kg	
Chloride	SM4500CI-B		1390	<16.0	

		Sample		SP2 @ 1'	
Analyte	Method	Date	7/20/15	7/20/15	
			mg/Kg	mg/Kg	
Chloride	SM4500CI-B		1230	<16.0	

		Sample	SP3 @ SURFACE	SP3 @ 1'
Analyte	Method	Date	7/20/15	7/20/15
			mg/Kg	mg/Kg
Chloride	SM4500CI-B		3440	64

		Sample	SP4 @ SURFACE	SP4 @ 1'
Analyte	Method	Date	7/20/15	7/20/15
			mg/Kg	mg/Kg
Chloride	SM4500CI-B		720	32

	Sample	SP5 @ 12'	SP5 @ 13'	SP5 @ 14'
Method	Date	7/20/15	7/20/15	7/20/15
		mg/Kg	mg/Kg	mg/Kg
SM4500CI-B		624	432	<16.0
		•	Method Date 7/20/15 mg/Kg	Method         Date         7/20/15           mg/Kg         mg/Kg

		Sample	SP6 @ 12'	SP6 @ 13'	SP6 @ 14'
Analyte	Method	Date	7/20/15	7/20/15	7/20/15
			mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500CI-B		592	464	32

		Sample	SP7 @ 12'	SP7 @ 13'	SP7 @ 14'
Analyte	Method	Date	7/20/15	7/20/15	7/20/15
			mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500CI-B		784	496	32



July 28, 2015

Cliff Brunson BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SHU #172

Enclosed are the results of analyses for samples received by the laboratory on 07/21/15 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	07/21/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	SHU #172	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	HOBBS, NM		

## Sample ID: SP 1 @ SURFACE (H501889-01)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 1 @ 1' (H501889-02)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/26/2015	ND	416	104	400	3.92	

#### Sample ID: SP 2 @ SURFACE (H501889-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 2 @ 1' (H501889-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/26/2015	ND	416	104	400	3.92	

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	07/21/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	SHU #172	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	HOBBS, NM		

#### Sample ID: SP 3 @ SURFACE (H501889-05)

Chloride, SM4500Cl-B	mg/kg			Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3440	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 3 @ 1' (H501889-06)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 4 @ SURFACE (H501889-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	07/26/2015	ND	416	104	400	3.92	

#### Sample ID: SP 4 @ 1' (H501889-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 5 @ 12' (H501889-09)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	07/26/2015	ND	416	104	400	3.92	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	07/21/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	SHU #172	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	HOBBS, NM		

#### Sample ID: SP 5 @ 13' (H501889-10)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 5 @ 14' (H501889-11)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/26/2015	ND	416	104	400	3.92	

## Sample ID: SP 6 @ 12 (H501889-12)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	07/26/2015	ND	416	104	400	3.92	

#### Sample ID: SP 6 @ 13 (H501889-13)

Chloride, SM4500Cl-B	oride, SM4500Cl-B mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	07/26/2015	ND	416	104	400	3.92	

#### Sample ID: SP 6 @ 14 (H501889-14)

Chloride, SM4500Cl-B	nloride, SM4500Cl-B mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/28/2015	ND	416	104	400	0.00	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	07/21/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	SHU #172	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	HOBBS, NM		

#### Sample ID: SP 7 @ 12' (H501889-15)

Chloride, SM4500Cl-B	M4500Cl-B mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	07/28/2015	ND	416	104	400	0.00	

## Sample ID: SP 7 @ 13' (H501889-16)

Chloride, SM4500Cl-B	de, SM4500Cl-B mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	07/28/2015	ND	416	104	400	0.00	

## Sample ID: SP 7 @ 14' (H501889-17)

Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AP					
Analyte Result		Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/28/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

- ND
   Analyte NOT DETECTED at or above the reporting limit

   RPD
   Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

any Name: BEC International. Inc. 14 Manager: Cliff Brunson se: PO. Box 805 Fax: S75-397-0397 19: Project Owner: The State NM Zip: 88241 Atm: Project Owner: The State NM Zip: 88241 Project Owner: The State NM Zip: 8824 Project Owner: Project Owne

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cannot accept verbal changes. Please fax writte		Relinquished By:	EASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based alives. All claims including those for negligence and any other cause whatsoerer shall be deemed whether whether invoce. In no event shall Cadinal be liable for incidential or consequential damages, including whole limitation, business in fittales craucescons invitient out of or tradeet to the exchange on the for Cardinal reservations.	17 8/4 61	119 21/34d 51	100 100 100 100 100 100 100	>-	(G)RAB OR (C)C # CONTAINERS BROUNDWATER SOIL	MP.	Sampler Name: The blas part of the second se	ame: SHU-172	Project #: Project Owner: 0 V	575 307 6388		Project Manager: Cliff Brunson	101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476 Company Name: RRC International June
Jes to 505-393-2476	Sample Condition CHECKED BY: Cool Intact Pres Pres Annuals	Hunden Phone Result: 9 Yes Fax Result: 9 Yes REMARKS: 9	ed in contract or tort, shall be limited to the amount paid by the client for the in writing and reserved by Cadrida I within 30 days after completion of the applicable in writing and reserved by costs of profils incurred by determined the second states incurred to dame is best of the second states are not inclusive such claim is bested incoment of the second states of the second states such claim is bested incoment of the second states of the second states and the second states of	V 337 7	7 62	230 X	125	DUL SLUDGE DTHER : ACID/BASE: CE / COOL DTHER : DTHER : DTHER : DTHER :	MATRIX PRESERV SAMPLING	Phone #:	State: Zh:	Chu:	Attn:	· Company:	P.O. #: *	
	21	s □ No Add'I Phone #: s □ No Add'I Fax #:														102 By0-

Form C-141 Revised August 8, 2011

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.

			5	Sa	anta Fe	e, NM 875	05								
			Rel	ease Notifi	catio	n and Co	orrecti	ive A	ction						
						<b>OPERA</b>	ΓOR			🛛 Initial Report 🔲 Final Rep					
Name of C	ompany	Oxy Permia	n		1	Contact Tony Aguilar									
Address	1017 W. S	tanolind Ro	ad			Telephone No. (575) 397-8251									
Facility Na	me SHU	J #172 Inject	tion line			Facility Typ	e Injec	ction							
Surface Ov	vner			Mineral C	Owner					API No	. 30-025	-2854	3		
				LOCA	<b>TTO</b>	N OF REJ	EASE								
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from		East/W	est Line	County				
NE ¼	0	100	205												
INE 74	9	198	38E								Lea Count	y, NM			
			I	atitude <u>N 32.68</u>		Longitue		3.14778	<u>89°</u>						
				NAT	URE	OF RELI							·		
Type of Rele		uced water	422 Cl 1			Volume of		150 bł		Volume R		0 bbls			
		-	4" fibergi	ass injection line		Date and H 07/11/2015		currene	e	Date and I	Hour of Dis	covery			
Was Immedi	ate Notice (		Yes 🗌	No 🗌 Not Re	equired	If YES, To Kellie Jone		D							
By Whom?	Tony Ag	uilar, Oxy			Date and Hour 07/11/2015										
Was a Water	course Read				If YES, Volume Impacting the Watercourse.										
		pacted, Descr													
	gue of a 4" t	em and Reme		n Taken.* caused 150 bbis o	f produc	ed water to s	oill onto th	ne groun	nd. No f	luids were	recovered a	nd the	line was		
Describe Are	a Affected	and Cleanup A	Action Tak	en.*											
The area affe in accordance	cted is appr e with a rem	oximately 100 rediation plan	)' x 75' on approved	location to the ea	ist of the	e SHU water i	njection b	ldg. and	d into the	trench. R	emediation	will be	completed		
regulations al public health should their o	ll operators or the envir operations h ument. In a	are required to conment. The ave failed to a ddition, NMO	o report an acceptanc dequately CD accep	is true and compl d/or file certain re e of a C-141 repo investigate and re tance of a C-141 r	elease no rt by the mediate	otifications an NMOCD ma contaminatio	d perform rked as "H n that pos	i correct Final Re se a thre	tive actio eport" do eat to gro	ns for rele es not relie und water,	ases which a eve the oper surface wat	nay en ator of er, hur	danger liability nan health		
	(20)		Λ				<u>OIL (</u>	CONS	SERVA	ATION I	DIVISIO	<u>N</u>			
Signature:	-Inco	1 Cha	L												
Printed Name	: Topy A	guilar			A	Approved by I	Environme	ental Sp	ecialist:						
Title: HES	Specialist		·		A	Approval Date	:		E۶	piration E	Date:				
E-mail Addre	ss: Raym	ond_aguilar@	oxy.com		c	Conditions of	Approval:				Attached				
Date: 7-	16-15	-	Phone:	(575) 397-8251	t							<u> </u>			

\* Attach Additional Sheets If Necessary