22. Operator Closure Certification:		· · · · · · · · · · · · · · · · · · ·
I hereby certify that the information and attachments submitted with this oblief. I also certify that the closure complies with all applicable closure		
Name (Print):Richard Wright	Title: Pro	duction Superintendent
Signature: Richard L. Whight	Date:	ecember 23, 2013
e-mail address: rwright@cazapetro.com	Telephone:	(432) 682-7472 (x-1006)

approved Ŷ Environmental Specialist the man

NMOCD-DISTRICT I 7/02/14

Form C-144

-Page 6 of 6

JUL 0 2 2014

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505DE6-@7652013

December 23, 2013

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3

RECEIVED

Mr. Geoffrey Leking NMOCD District 1 1625 French Drive Hobbs, New Mexico 88240 Via E-Mail and Mail

RE: Caza Operating, Lennox "32" State 2H, API: 30-025-40451, Unit A Section 32, T22S, R35E, Lea County, Temporary Pit Closure Report

Dear Geoffrey:

In keeping with the requirements of the approved C-144 closure plan for the temporary pit, this report includes the following information listed in Part 21 of the C-144 form:

Required Information	Location in Submission
Proof of closure Notice (to surface owner and Division)	Attachment 1
Proof of Deed Notice (required for on-site closure	State Land (no deed)
Plot Plan (for on-site closures and temporary pits)	C-105 and Attachment 2
Confirmation Sampling Analytical Results	Not Applicable
Waste Material Sampling Analytical Results (required for on-	Attachment 3
site closure)	
Disposal Facility Name and Permit Number	Not Applicable
Soil Backfilling and Cover Installation	Attachment 4
Re-vegetation Application and Seeding Technique	Attachment 5
Updated C-144 form	Attachment 6
Site Reclamation (Photo Documentation)	To follow later

On Site Closure Location (center of on-site burial area): Latitude: N 32.354829° Longitude: W -103.382782° (NAD27)

We understand that OCD cannot formally release the site under the current Rule until we document re-vegetation. As shown above, please expect documentation of burial marker and re-vegetation when it is established in accordance with subsections F and H of 19.15.17.13 NMAC.

Sincerely, R.T. Hicks Consultants, Ltd.

Dale Littlejohn

Geologist

Copy: Caza Operating, LLC New Mexico State Land Office

ATTACHMENT 1

4

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

September 9, 2013

.

Mr. Geoffrey Leking NMOCD District 1625 French Drive Hobbs, New Mexico 88240 Via E-mail and Regular Mail

RE: Caza Operating, Lennox 32 State No. 2H C-144 Permit Modification

Dear Geoffrey:

On behalf of Caza Operating, enclosed are:

- 1. A C-144 Form to modify the existing application (approved on January 7, 2013) to comply with the new Rule and
- 2. Updated (and recent OCD-approved) closure plans that are consistent with the new Rule.

The site-specific write-up, figures, plates, and appendix are unchanged from the earlier approved plan. We anticipate initiation of closure activities in the next few weeks.

Please contact me if you have any questions of need additional information.

Sincerely, R.T. Hicks Consultants

Dale T. Littersom

Dale T. Littlejohn

Copy: Richard Wright, Caza Operating, LLC Terry Warnell, NM State Land Office

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

September 25, 2013

Mr. Geoffrey Leking NMOCD District 1 1625 French Drive Hobbs, New Mexico 88240 Via E-mail

RE: Caza Operating, Lennox "32" State 2H, API: 30-025-40451, Unit A Section 32 T22S R35E, In-place Burial Notice

Dear Geoffrey:

The "In-place Burial" closure plan for the above referenced pit was approved on January 7, 2013 by the NMOCD, prior to the establishment of the June 2013 pit rule. Construction and operation of the temporary pit has been conducted to satisfy the rule under which it was approved as well as the June 2013 rule. A modified closure plan, prepared using the June 2013 rule was submitted to the NMOCD on September 11, 2013 and approved on September 16, 2013.

On August 16, 2013, once the waste in the pit had dried enough to allow sampling, a fivepoint composite sample was recovered and stabilized with the available mixing soil at a 3:1 ratio. Laboratory analyses were performed to determine the concentrations of the parameters listed in Table II of 19.15.17.13 NMAC.

The attached laboratory report of the stabilized waste sample (drilling waste mixed with the clean soil at a 3:1 ratio¹) and the table below shows that none of the constituents exceed the standards set forth in the Rule. The calculations suggest that the stabilized waste will meet the criteria for in-place burial at a stabilization ratio of approximately 1.63:1 with TPH by EPA method 418.1 being the limiting constituent.

Summary Comparison of Laboratory Results to Pit Rule Burial Standards	Sampling Date	Laboratory Results of Stabilized Waste Material (mg/kg)	19.15.17.13 NMAC Table II Depth to GW below waste > 100 Feet (mg/kg)	Estimated Maximum Mix Ratio Required To Achieve Pit Rule Burial Standard (must be <3:1)
GRO + DRO + MRO (EPA Method 8015M)	8/16/13	156	1,000	0.47 :1
TPH (EPA Method 418.1)	8/16/13	1,360	2,500	1.63 :1
Chloride (EPA Method 300.0)	8/16/13	15,400	80,000	0.58 :1
Benzene (EPA Meth. 8021B or 8260B)	8/16/13	0.546	10	0.16 :1
Total BTEX (EPA Meth. 8021B or 8260B)	8/16/13	19.3	50	1.16 : 1

¹ (5) The operator shall collect, at a minimum, a five point composite of the contents of the temporary pit or drying pad/tank associated with a closed-loop system to demonstrate that, after the waste is solidified or stabilized with soil or other non-waste material at a ratio of no more than 3:1 soil or other non-waste material to waste, the concentration of any contaminant in the stabilized waste is not higher than the parameters in Table II of 19.15.17.13 NMAC.

September 25, 2013 Page 2

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RT Hicks Consultants is concerned that TPH by 418.1 may not be an accurate representation of actual petroleum hydrocarbons present in the waste as several mud additives and/or lose circulation materials are also detectable by EPA method 418.1. In order to provide additional data for this and future evaluations, we have also analyzed the stabilized waste by EPA method 8015B extended to included carbon numbers up to C35 (GRO+DRO+MRO). This analysis should include a complete range of purge-able and extractable hydrocarbons without also including the non-petroleum hydrocarbons that are measured by method 418.1.

Sincerely, R.T. Hicks Consultants

Dale T. Litteroh

Dale Littlejohn

Copy: Caza Operating, LLC

New Mexico State Land Office PO Box 1148 Santa Fe, NM 87504-1148 CERTIFIED MAIL – RETURN RECIEPT REQUEST

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

September 25, 2013

.

Mr. Geoffrey Leking NMOCD District 1 1625 French Drive Hobbs, New Mexico 88240 Via E-mail

RE: Caza Operating, Lennox "32" State 2H, API: 30-025-40451, Unit A Section 32 T22S R35E, In-place Burial Notice

Dear Geoffrey:

The "In-place Burial" closure plan for the above referenced nit was approved on January

7, 2013 by the NMOG COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION and operation of the 1 was approved as well Complete items 1, 2, and 3. Also complete A. Signature Agent item 4 if Restricted Delivery is desired. June 2013 rule was s Print your name and address on the reverse Х Addressee so that we can return the card to you. September 16, 2013. C. Date of Delivery B. Received by Printed Name Attach this card to the back of the mailpiece. or on the front if space permits. C Yes D. Is delivery address different from item 1? On August 16, 2013, 1 1. Article Addressed to: YES, enter delivery address below: D No point composite same Terry Warnell 3:1 ratio. Laboratory CED 30 UM State Land Office parameters listed in 7 PO Box 1148 The attached laborate 3. Service Type the clean soil at a 3:1 Santa Fe, NM 87504 Express Mail Z Certified Mail, C Return Receipt for Merchandise Realstered. exceed the standards Insured Mail C.O.D. waste will meet the c 4. Restricted Delivery? (Extra Fee) C Yes 1.63:1 with TPH by E 2. Article Number 7008 1300 0002 4410 5962 (Transfer from service label) Summary Comparison of Labc-PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540 Results to Pit Rule Burial Stan Laboratory Results Denth to GW U.S. Postal Service ... of Stabilize CERTIFIED MAIL, RECEIPT Sampling Waste Mate (Dentestie Mail Culy No insurance Coverage Provided) Date (mg/kg) nı Fordelivery information visit our website di www.maps.com. _0 GRO + DRO + MRO (EPA Method 8015M) 8/16/13 156 E S TPH (EPA Method 418.1) 8/16/13 1,360 1 At di l' 7.**3** Chloride (EPA Method 300.0) 8/16/13 15,400 25/13 Benzene (EPA Meth, 8021B or 8260B) 8/16/13 0.546 141 ふこ Postaga Total BTEX (EPA Meth. 8021B or 8260B) 8/16/13 19.3 Conified Fee Postmark ¹ (5) The operator shall collect, at a minimum, a five point composit Return Receipt Fee (Endorsement Required) pad/tank associated with a closed-loop system to demonstrate that, a 500 Notice Restricted Dalivery Fee (Endorsement Required) other non-waste material at a ratio of no more than 3:1 soil or other r closure at contaminant in the stabilized waste is not higher than the parameters 47 Caza Lennox \$ Total Postage & Fees Sent To -0 Street, Apt. No or PO Box No. City, State, ZIP. Fe See Reverse for Inchristians

PS Form 8510. August 2002

From: "Leking, Geoffrey R, EMNRD" < Geoffrey R. Leking@state.nm.us>

Subject: Caza Lennox "32" State 2H Temporary Pit Waste Stabilization

- Date: September 30, 2013 8:24:06 AM CDT
 - To: "Randall Hicks (r@rthicksconsult.com)" <r@rthicksconsult.com>
 - Cc: "Dale Littlejohn (dale@rthicksconsult.com)" <dale@rthicksconsult.com>, "Martin, Ed, EMNRD" <ed.martin@state.nm.us>

Randy

2

The five point composite waste stabilization sample data as submitted in the correspondence of September 25, 2013 meets the requirements of 19.15.17.13 NMAC. Caza is approved to proceed with closure field activities.

Geoffrey Leking Environmental Specialist NMOCD-Hobbs 1625 N. French Drive Hobbs, NM 88240 Office: (575) 393-6161 Ext. 113 Cell: (575) 399-2990 email: geoffreyr.leking@state.nm.us

ATTACHMENT 2

Subinit To Appro Two Copies	priate Distri	ct Office			State of Ne									orm C-	
Two Copies District 1 1625 N. French Dr., Hobbs, NM/588240 District II									\vdash	1. WELL	API NO.		Revised A	ugust 1, 2	2
811 S. First St., A	rtesia, NM	88210	0 2013	Oil	Conservat	tion	Divisio	n				<u>30 0:</u>	<u>25 4045</u>	51/	
District III 1000 Rio Brazos I District IV	Rd., Aztec, I	NM 87410. L	5		20 South S					2. Type of L	ease TE F	EE	FED/IND	DIAN	
District IV 1220 S. St. Franci	s Dr., Santa	Fe, NM 87505	ENED	2	Santa Fe, N	M	87505			3. State Oil	& Gas Lease	No.	VO 796	9	
		LETION	ÓR RECO	OMPLE	ETION RE	POF	RT AND	LOG		6 1 No.					
 Reason for fi 	•								L		<u>c 32 State</u>	reeme			
C-144 CLC	SURE AT	TACHMEN	T (Fill in box	es #1 thro	ough #9, #15 Da	ate Rig	g Released	and #32 and/ C)		6. Well Num	ber: 2H	/			
7. Type of Com	pletion:			1					OIR						
8. Name of Ope	rator			1			<u>Dirrence</u>			9 OGRID	249099				
10. Address of (Dperator	za Opera	ating, LL(<u>-/</u>						11. Pool name					
200 N	lorair	ne. Suite	1550 M	idland	l, Texas 7	'97 ()1			Rock	Lake-Bo	one	Sprina		
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BH:	P	32	22	S Data Di	35 E			4956		N Bandu to Bro	<u>606</u>		E	Lea	
13. Date Spudd 2/29/12		^{Date T.D.} Reac 3/29/13	1	4/2/1						Ready to Pro		RT, C	levations (D GR, etc.)	3525	G
18. Total Measu 15,914	red Depth		19.	Plug Back	k Measured Dep 64	pth	20.	Was Directi Yes	ional	Survey Made	? 21. CN		lectric and C T,DLL,SO		Ru
22. Producing li		of this comple	tion - Top, Bo	ttom, Na	me										_
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13-3/8		54.5 lb	<u>T LB./FT.</u> J-55	720		-	17-1/2			CEMENTING RECORD AMOUNT PUL 620 sks circ 225 sks					
9-5/8			J & HCK				12-1/4"			4197 sks		_	circ 135 sks		
7-0		29.0 lb	Р	11,535 ft			8-3/4"			1300 sks			<u>OC 4900</u>	CBL	
24.	TOP		L DOTTOM	LINE	R RECORD	CNT	SCREEN	I	25.		FUBING R			CD OCT	
SIZE 4-1/2	<u>TOP</u>	/10	BOTTOM 15,914		SACKS CEM 225	CINI	JCKEEL	•	SIZE	3	DEPTH	OCI		ER SET	
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(30 holes)					•		10,550-	10210		20/40 opti p		70.00			
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Date First Produ	iction	P	Production Me	thod (Flo	wing, gas lift, p					Well Statu	s (Prod. or S	hut-in)			
5-28-20 ²	13		Submer	sible	Pump					Prod	ucing				
Date of Test		s Tested	Choke Size	:	Prod'n For Test Period		Oil - Bb			- MCF	Water -	Bbl.	Gas - 100	Oil Ratio	
7-2-2013 Flow Tubing	29	ng Pressure	N/A Calculated	24-	Oil - Bbl.		404 Gas	- MCF	4(J7 Vater - Bbl.	537	Gravit-	/ - API - (Co		
Press. 250	55	-	Hour Rate		334		33	-		444		39.6	Corr	<i></i> ,	
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		0			0.460	•									
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INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeas	tern New Mexico	Northwestern New Mexico				
T. Anhy Castile 1390	T. Canyon	T. Ojo Alamo	T. Penn A"			
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"			
B. Salt	T. Atoka	T. Fruitland	Т. Репп. "С"			
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"			
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville			
T. Queen	T. Silurian	T. Menefee	T. Madison			
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert			
T. San Andres	T. Simpson	T. Mancos	T. McCracken			
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte			
T. Paddock	T. Ellenburger	Base Greenhorn	T.Granite			
T. Blinebry	T. Gr. Wash	T. Dakota				
T.Tubb	T. Delaware Sand 8338	T. Morrison				
T. Drinkard	T. Bone Springs 8734	T.Todilto				
T. Abo	T. Rustler 1932	T. Entrada				
T. Wolfcamp 11,435	T. Bell Canyon 5839	T. Wingate				
T. Penn	T. 2nd Bone Springs 10314	T. Chinle				
T. Cisco (Bough C)	T. 3rd Bone Springs 11,220	T. Permian				

OIL OR GAS SANDS OR ZONES

No. 1, from	No. 3, fromtoto

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No.	1, from	n	to	feet
				feet
				feet

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	То	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology
	Ì						
	1						

Lennox 32 State # 2H

Location: Section 32_T22S_R35E_Lea County, New Mexico



Laza Dil&Gas,Inc.

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Submit To Appropriate District Office Two Copies District I	State of New Minerals and N	latural Resources Revise					Form C-105 August 1, 2011	
I625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210		l Conservatio			1. WELL		30-025-	
District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV		20 South St. F	rancis D		2. Type of I			IDIAN
1220 S. St. Francis Dr., Santa Fe, NM 87505		Santa Fe, NM	87505		3. State Oil	& Gas Lease	No.	VO-7969
WELL COMPLETION OR	RECOMPL	ETION REPC	ORT AND) LOG				
4. Reason for filing:	— #1.41	6 - 64-4	11		5. Lease Nat		greement Name	ox "32' State
COMPLETION REPORT (Fill in boxe	Fill in boxes #1 th	rough #9, #15 Date R	tig Released	and #32 and/o		iber:	2Н	
#33; attach this and the plat to the C-144 close7. Type of Completion:	sure report in acco	rdance with 19.15.17	/.13.K NMA	<u>()</u>				
NEW WELL WORKOVER	DEEPENING	PLUGBACK	DIFFEREN	NT RESERVO				
8. Name of Operator	aza Operating, Ll	LC			9. OGRID	249	9099	
10. Address of Operator					11. Pool nam	e or Wildcat		
12.Location Unit Ltr Section	Township	Range Lo	ot	Feet from the	e N/S Line	Feet from	the E/W Line	County
Surface:		·						
BH:	- [+		. <u> </u>				
13. Date Spudded 14. Date T.D. Reached	15. Date Rig	Released 4/2/13		Date Comple	ted (Ready to Pro	oduce)	17. Elevations (I RT, GR, etc.)	DF and RKB,
18. Total Measured Depth of Well	19. Plug Ba	ck Measured Depth	20.	Was Directio	onal Survey Made	e? 21.	Type Electric and	Other Logs Run
22. Producing Interval(s), of this completion	- Top, Bottom, N	ame						
23.	CAS	SING RECOR	RD (Rep	ort all stri	ings set in v	vell)		
CASING SIZE WEIGHT LE	S./FT.	DEPTH SET	НО	LE SIZE	CEMENTI	NG RECORI	D AMOUN	IT PULLED
		<u> </u>						
24. SIZE TOP B	OTTOM	ER RECORD SACKS CEMENT	SCREEN		25. SIZE	TUBING R		KER SET
26. Perforation record (interval, size, and r	iumber)			I <u>D, SHOT, F</u> INTERVAL			QUEEZE, ETC. MATERIAL USE	D
			<u>DEFIN</u>					
28. Date First Production Produ	iction Method /Fl	owing, gas lift, pump	ing - Size an		Well Stati	is (Prod. or S	Shut_in)	
			Ū					
Date of Test Hours Tested C	hoke Size	Prod'n For Test Period	Oil - Bbl	ĺ	Gas - MCF	Water -	Bbl. Gas	- Oil Ratio
	alculated 24- lour Rate	Oil - Bbl.	Gas -	MCF	Water - Bbl.	Oil	Gravity - API - (C	Corr.)
29. Disposition of Gas (Sold, used for fuel, ve	ented, etc.)	J	<u> </u>	<u>.</u>		30. Test W	itnessed By	
31. List Attachments						<u> </u>		
32. If a temporary pit was used at the well, at	tach a plat with th	e location of the tem	porary pit.		SEE ATTA	CHED		
33. If an on-site burial was used at the well, r	eport the exact lo	cation of the on-site l	ourial:	<u> </u>	<u>SEE A</u> TTA		······································	· · · · · · · · · · · · · · · · · · ·
					e N 32.354829°			NAD 1927
I hereby certify that the information		h sides of this for Printed	m is true o	una comple	ie to the best	oj my knov	vieage and bel	iej
Signature Dale T. Attley E-mail Address dale@rthickscon	oln	Name <u>Dale Lit</u>	tlejohn	Title _	Geologist		Date 11	-25-13



ATTACHMENT 3

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August 27, 2013

DALE LITTLEJOHN R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE, NM 87104

RE: LENNOX #2H PIT

Enclosed are the results of analyses for samples received by the laboratory on 08/16/13 14:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited certif.html.

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



1

Analytical Results For:

R T HICKS CONSULTANT 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	JITE F-142 Project N		Reported: 27-Aug-13 14:25	
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
STABILIZED CUTTINGS	H301960-01	Soil	16-Aug-13 10:15	16-Aug-13 14:37

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatspever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey Di Kune

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project: LENNOX #2H PIT Project Number: NONE GIVEN Project Manager: DALE LITTLEJOHN Fax To: NONE						Reported: 27-Aug-13 14:25			
		STABILIZ								
		Reporting	960-01 (Se							
Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
		Cardina	l Laborat	tories		······				
Inorganic Compounds										
Chloride	15400	16.0	mg/kg	4	3082011	AP	21-Aug-13	4500-Cl-B		
Organic Compounds										
ТРН 418.1	1360	100	mg/kg	10	3082404	СК	27-Aug-13	418.1		
Volatile Organic Compounds by EPA Met	hod 8260B								<u>S-04</u>	
Benzene*	0.546	0.050	mg/kg	50	3082304	MS	23-Aug-13	8260B	0-0-4	
Toluene*	5.26	0.050	mg/kg	50	3082304	MS	23-Aug-13	8260B		
Ethylbenzene*	2.53	0.050	mg/kg	50	3082304	MS	23-Aug-13	8260B		
Total Xylenes*	11.0	0.150	mg/kg	50	3082304	MS	23-Aug-13	8260B		
Total BTEX	19.3	0.300	mg/kg	50	3082304	MS	23-Aug-13	8260B		
Surrogate: Dibromofluoromethane		91.5 %	61.3	-142	3082304	MS	23-Aug-13	8260B		
Surrogate: Toluene-d8		134 %	71.3	-129	3082304	MS	23-Aug-13	8260B		
Surrogate: 4-Bromofluorobenzene		267 %	65.7		3082304	MS	23-Aug-13	8260B		
Petroleum Hydrocarbons by GC FID					_					
GRO C6-C10	25.3	10.0	mg/kg	1	3082008	DW	21-Aug-13	8015B		
DRO >C10-C28	112	10.0	mg/kg	ł	3082008	DW	21-Aug-13	8015B		
EXT DRO >C28-C35	18.5	10.0	mg/kg	1	3082008	DW	21-Aug-13	8015B		
Surrogate: 1-Chlorooctane		115 %	65.2	-140	3082008	DW	21-Aug-13	8015B		
Surrogate: 1-Chlorooctadecane		149 %	63.6	-154	3082008	DW	21-Aug-13	8015B		

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Page 3 of 9



9	T HICKS CONSULTANTS 01 RIO GRANDE BLVD SUITE F-142 LBUQUERQUE NM, 87104	Project Number: Project Manager:	DALE LITTLEJOHN	Reported: 27-Aug-13 14:25
		Fax To:	NONE	

Inorganic Compounds - Quality Control

		Cardiı	nal Lab	oratories						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3082011 - 1:4 DI Water										
Blank (3082011-BLK1)				Prepared &	Analyzed:	20-Aug-13				
Chloride	ND	16.0	mg/kg							
LCS (3082011-BS1)				Prepared &	Analyzed:	20-Aug-13				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (3082011-BSD1)				Prepared &	Analyzed:	20-Aug-13				
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	DALE LITTLEJOHN	Reported: 27-Aug-13 14:25
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Organic Compounds - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 3082404 - Solvent Extraction										
Blank (3082404-BLK1)				Prepared &	Analyzed:	27-Aug-13		,		
TPH 418.1	ND	100	mg/kg							
LCS (3082404-BS1)				Prepared &	Analyzed:	27-Aug-13				
TPH 418.1	5390	100	mg/kg	5000		108	80-120			
LCS Dup (3082404-BSD1)				Prepared &	Analyzed:	27-Aug-13				
TPH 418.1	5520	100	mg/kg	5000		110	80-120	2.46	20	

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Page 5 of 9



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	LENNOX #2H PIT NONE GIVEN DALE LITTLEJOHN	Reported: 27-Aug-13 14:25	
ALBOQUERQUE NM, 8/104	Fax To:			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3082304 - Volatiles										
Blank (3082304-BLK1)				Prepared: 2	22-Aug-13	Analyzed: 2	23-Aug-13			
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: Dibromofluoromethane	0.527		mg/kg	0.500		105	61.3-142			
Surrogate: Toluene-d8	0.514		mg/kg	0.500		103	71.3-129			
Surrogate: 4-Bromofluorobenzene	0.516		mg/kg	0.500		103	65.7-141			
LCS (3082304-BS1)				Prepared: 2	22-Aug-13 A	Analyzed: 2	23-Aug-13			
Benzene	2.14	0.050	mg/kg	2.00		107	76.8-122			
Toluene	2.12	0.050	mg/kg	2.00		106	73.1-129			
Ethylbenzene	2.07	0.050	mg/kg	2.00		103	72.8-128			
m+p - Xylene	4.16	0.100	mg/kg				69.4-129			
Total Xylenes	6.21	0.150	mg/kg	6.00		103	72-127			
o-Xylene	2.05	0.050	mg/kg	2.00		102	70.3-126			
Surrogate: Dibromofluoromethane	0.518	-	mg/kg	0.500		104	61.3-142			
Surrogate: Toluene-d8	0.504		mg/kg	0.500		101	71.3-129			
Surrogate: 4-Bromofluorobenzene	0.504		mg/kg	0.500		101	65.7-141			
LCS Dup (3082304-BSD1)				Prepared: 2	22-Aug-13 A	Analyzed: 2	23-Aug-13			
Benzene	2.06	0.050	mg/kg	2.00		103	76.8-122	3.91	18.7	
Toluene	2.06	0.050	mg/kg	2.00		103	73.1-129	2.93	19.4	
Ethylbenzene	1.99	0.050	mg/kg	2.00		99.7	72.8-128	3.59	21.8	
m+p - Xylene	4.03	0.100	mg/kg				69.4-129	3.08	25.3	
o-Xylene	1.99	0.050	mg/kg	2.00		99.3	70.3-126	3.11	23.6	
Total Xylenes	6.02	0.150	mg/kg	6.00		100	72-127	3.09	23.2	
Surrogate: Dibromofluoromethane	· 0.504		mg/kg	0.500		101	61.3-142			
Surrogate: Toluene-d8	0.508		mg/kg	0.500		102	71.3-129			
Surrogate: 4-Bromofluorobenzene	0.512		mg/kg	0.500		102	65.7-141			

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R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	LENNOX #2H PIT NONE GIVEN DALE LITTLEJOHN	Reported: 27-Aug-13 14:25
	Fax To:	NONE	

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

the second se										
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3082008 - General Prep - Organics										
Bank (3082008-BLK1)				Prepared &	Analyzed:	20-Aug-1	3			
RO C6-C10	ND	10.0	mg/kg							
RO >C10-C28	ND	10.0	mg/kg							
XT DRO >C28-C35	ND	10.0	mg/kg							
otal TPH C6-C28	ND	10.0	mg/kg							
urrogate: 1-Chlorooctane	47.2		mg/kg	50.0		94.3	65.2-140			
urrogate: 1-Chlorooctadecane	55.1		mg/kg	50.0		110	63.6-154			
.CS (3082008-BS1)				Prepared &	Analyzed:	20-Aug-1	3			
RO C6-C10	171	10.0	mg/kg	200		85.7	66.4-124			
RO >C10-C28	182	10.0	mg/kg	200		90.9	61.6-132			
otal TPH C6-C28	353	10.0	mg/kg	400		88.3	69.7-122			
urrogate: 1-Chloroociane	50.4		mg/kg	50.0		101	65.2-140			
urrogate: 1-Chlorooctadecane	60.0		mg/kg	50.0		120	63.6-154			
.CS Dup (3082008-BSD1)				Prepared &	Analyzed:	20-Aug-1	3			
RO C6-C10	180	10.0	mg/kg	200		90.2	66.4-124	5.17	23.4	
PRO >C10-C28	191	10.0	mg/kg	200		95.6	61.6-132	5.05	23.1	
otal TPH C6-C28	372	10.0	mg/kg	400		92.9	69.7-122	5.11	20.6	
urrogate: 1-Chlorooctane	52.8		mg/kg	50.0		106	65.2-140			
urrogate: 1-Chlorooctadecane	60.4		mg/kg	50.0		121	63.6-154			

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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 SM4500CI-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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 9 of 9

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ATTACHMENT 4

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Closure Letter Attachment 4 Caza Operating - Lennox "32" State #2H API: 30-025-40451

Protocols and Procedures used for the In-Place Burial

In accordance with to the requirements listed in Paragraph D of 19.15.17.13 NMAC, the operator employed the following steps for in-place burial of the waste material.

- The closure notice letter was submitted to the NMOCD District 1 Office on September 25, 2013 and approved via email on September 30, 2013 (Attachment 1). In-place burial field activities began on October 2, 2013.
- 2. The waste burial location and depth is in compliance with the siting criteria presented in the C-144 application submitted to the NMOCD District 1 Office on September 9, 2013 and approved on September 16, 2013.
- 3. From May 29 to July 22, 2013, fresh water from the initial frac flow-back was used via the drainage system in the inner cell to reduce the salt concentration of the waste. All free liquids were removed from the inner cell, outer cell, and flow-back pit on July 23, 2013. The waste material was allowed to dry out until closure field activities began on October 2, 2013.
- 4. From October 2, to October 10, 2013 the temporary pit contents were stabilized to a capacity sufficient to support the final cover, as verified by a paint filter test conducted by a representative of RT Hicks Consultants on October 11, 2013. The final mixing ratio was greater than 2:1 but did not exceed 3:1 (clean soil to waste material).
- 5. On August 16, 2013, prior to the initiation of closure activities, five-point composite samples were recovered from both the inner and outer cells of the temporary pit. These samples were mixed together according to the relative volume of waste material in each cell. The resulting sample was mixed with clean soil from the walls and dividers surrounding the temporary pit at a ratio of 3 parts clean soil to 1 part waste material in order to create a "stabilized sample". The stabilized sample was submitted to Cardinal Laboratories for analyses of GRO, DRO, MRO (EPA method 8015M), TPH (EPA method 418.1), BTEX (EPA method 8260B), and Chloride (SM4500). The results, as noted in the September 25, 2013 Closure Notice letter, indicated that the waste material contaminant concentrations, stabilized at a ratio greater than 1.63:1 did not exceed the parameters listed in Table II of 19.15.17.13 NMAC (see letter in Attachment 1 and Lab report in Attachment 3)
- 6. Following the October 11, 2013 inspection, having achieved all applicable waste stabilization associated with in-place burial, the remaining outer edges of the temporary pit liner were folded over the waste material. A 20-mil string reinforced LLDPE liner was then installed above the waste material in a manner

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Closure Letter Attachment 4 Caza Operating - Lennox "32" State #2H API: 30-025-40451

that prevents the collection of infiltration water in the temporary pit and on the geomembrane cover after the soil cover is in place.

7. Once the geomembrane cover was in place, at least 4 feet of non-waste containing, uncontaminated, earthen material and topsoil was installed as prescribed in Paragraph (3) of Subsection H of 19.15.17.13 NMAC.





Final Cover and Topsoil (10-29-13)

ATTACHMENT 5

No. 17. -

Closure Letter Attachment 5 Caza Operating - Lennox "32" State #2H API: 30-025-40451

Site Reclamation and Soil Cover Plan

After the temporary pit was closed, topsoil and subsoil was replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability, and blend with the surrounding undisturbed area and topography according to Subsection H of 19.15.17.13 NMAC. There were no road or surface drainage features nearby that required restoration or preservation.

The soil cover consists of at least four feet of compacted, non-waste containing, earthen material. The uppermost topsoil is equal to the background thickness of about one foot. It is nowhere less than one foot of suitable material in order to establish vegetation at the site in accordance with Paragraph (5), Subsection H of 19.15.17.13 NMAC.

Re-vegetation Plan

Upon completion of the soil cover the surface of the topsoil contained small ripples from the bulldozer treads, therefore no additional soil preparation was required.

1. On October 29, 2013, Eagle Eye Excavation of Loving, NM seeded the pit area by hand broadcast spreading 24 lbs. of seed over the 1.26-acre reclamation area. The seed was covered with soil by dragging a heavy steel harrow across the area for several hours with a four-wheel drive pick-up truck.



- 2. The seed mix used for this site to reestablish the native perennial vegetative cover was BLM #2 assortment.
- **3.** During the next two growing seasons to prove viability, there will be no artificial irrigation of the vegetation.
- 4. The operator will repeat seeding or planting until it successfully achieves the required vegetative cover.
- 5. If conditions are not favorable for the establishment of vegetation, such as periods of drought, the operator may request that the division allow a delay in additional seeding until soil moisture conditions become favorable. The operator will notify the division when it successfully achieves re-vegetation.

ATTACHMENT 6

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District II 811 S. First SL, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV	Energy Minerals an P 11 2013 Oil Conserv 1220 South	lew Mexico D ad Natural Resources artment ation Division St. Francis Dr. NM 87505	EC 2 6 2013 For temporary pits, below-grade to mortize withfuid management pits, appropriate NMOCD District Office For permanent pits submit to the S Environmental Bureau office and pr to the appropriate NMOCD District	submit to the anta Fe ovide a copy
	Pit, Below-(<u> Brade Tank, or</u>		
Proposed	Alternative Method P	ermit or Closure	Plan Application	
🖂 N		mit/or registration	tive method or non-permitted pit, below-grade ta	nk,
Instructions: Please sul	bmit one application (Form C-14	4) per individual pit, below	v-grade tank or alternative request	
Please be advised that approval of this request of environment. Nor does approval relieve the op	focs not relieve the operator of liabi erator of its responsibility to compl	lity should operations result with any other applicable g	in pollution of surface water, ground wat overnmental authority's rules, regulations	er or the or ordinances.
I. Operator: Caza Operating LLC		OGRID #	249099	
Address: 200 North Loraine, Sui				
Facility or well name: <u>Lennox "32"</u>				
API Number: <u>30-025-4045</u>			11-04233	
U/L or Qtr/Qtr <u>A</u> Section <u>3</u> Center of Proposed Design: Latitude	32 Township 22S	Range <u>35E</u> Co	unty: <u>Lea</u>	

Surface Owner: 🗌 Federal 🖾 State 🗋 Private 🗍 Tribal Trust or Indian Allotment

2.

EX Pit: Subsection F, G or J of 19.15.17.11 NMAC	
Temporary: 🛛 Drilling 🔲 Workover	
🗋 Permanent 🗋 Emergency 🗋 Cavitation 🔲 P&A 🔲 Multi-Well Fluid Management	Low Chloride Drilling Fluid 🔲 yes 🛛 no
☐ Lined ☐ Unlined Liner type: Thickness <u>20</u> mil ☐ LLDPE ☐ HDPE □ PVC □ 0	Other
String-Reinforced	

Liner Seams: 🛛 Welded 🔲 Factory 🗍 Other	Volume: <u>33,598</u> _bbl	Dimensions: L <u>142</u> x W <u>211</u>	x D 6-11 ft (drilling) 10 ft (fluids cell)
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3.
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
🗋 Secondary containment with leak detection 🔲 Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
🗋 Visible sidewalls and liner 🗌 Visible sidewalls only 🗋 Other
Liner type: Thicknessmil HDPE PVC Other
4.
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Burcau office for consideration of approval.
5.
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 if located within 1000 feet of a permanent residence, school, hospital, institution or church)
S Four foot height, four strands of barbed wire evenly spaced between one and four feet
Alternate. Please specify

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

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

Variances and Exceptions:

7.

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:

□ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

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

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 acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank	Yes No
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells See Figure 2	□ Yes ⊠ No □ NA
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. (Does not apply to below grade tanks) See Figure 5 - Written confirmation or verification from the municipality, Written approval obtained from the municipality	🗋 Yes 🖾 No
Within the area overlying a subsurface mine. (Does not apply to below grade tanks) See Figure 7 - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗆 Yes 🖾 No
 Within an unstable area. (Does not apply to below grade tanks) See Figure 8 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. (Does not apply to below grade tanks) See Figure 9 - FEMA map	🗋 Yes 🖾 No
Below Grade Tanks	
 Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗆 Yes 🗌 No
 Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🛛 Yes 🗌 No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
 Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) Topographic map; Visual inspection (certification) of the proposed site 	🗆 Yes 🗌 No
 Within 300 feet from a occupied 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 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗋 Yes 🗌 No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). See Figure 3 - 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. See Figure 4	🗌 Yes 🛛 No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site See Figures 1 & 2	🗋 Yes 🛛 No
Within 300 feet of a wetland. See Figure 6 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🛛 No
Permanent Pit or Multi-Well Fluid Management Pit	
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 1000 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 spring or a fresh water well used for domestic or stock watering purposes, 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 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
10. Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number:	ruments are NMAC
II. Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Previously Approved Design (attach copy of design) API Number:	

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^{12.} <u>Permanent Pits Permit Application Checklist</u> : Subsection B of 19.15.17.9 NMAC <i>Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the</i>	documents are
attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	
 Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H₂S, Prevention Plan Oil Field Waste Stream Characterization 	
 Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC 	
13. <u>Proposed Closure</u> : 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.	
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F.	luid Management Pit
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial	
14. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be	attached to the
closure plan. Please indicate, by a check mark in the box, that the documents are attached. 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 C of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) 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 H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	
15. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. F 19.15.17.10 NMAC for guidance.	
Ground water is less than 25 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 between 25-50 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 □ 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 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, 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 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, 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
Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗋 Yes 🛛 No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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	

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adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obta	ined from the municipality	🗌 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 & Mi Society; Topographic map 	neral Resources; USGS; NM Geological	🗌 Yes 🛛 No
Within a 100-year floodplain.		
- FEMA map		Yes 🛛 No
 16. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following by a check mark in the box, that the documents are attached. ☑ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Subset of Surface Owner Notice - based upon the appropriate requirements of Subset of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate appropriate appropriate (if applicable) based upon the appropriate appropriate (if applicable) based upon the appropriate (if applicable) based upon the appropriate appropriate (if applicable) based upon the appropriat	nts of 19.15.17.10 NMAC ction E of 19.15.17.13 NMAC	
 Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - b Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirement 	NMAC	15.17.11 NMAC
 ☑ Contribution Sampling Plan (in appreciate) - based upon the appropriate requirements of 19.15. ☑ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15. 		
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cut	tings or in case on-site closure standards cann	ot be achieved)
Soil Cover Design - based upon the appropriate requirements of Subsection H of 19 Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 1	9.15.17.13 NMAC 9.15.17.13 NMAC	
Site Reclamation Plan - based upon the appropriate requirements of Subsection P of P		
17. Operator Application Certification:		
I hereby certify that the information submitted with this application is true, accurate and o	complete to the best of my knowledge and belt	ief.
Name (Print): Richard Wright	Title: Production Superintender	11
Signature: Richard L. Whight	Date: September 9, 2013	
e-mail address:rwright@cazapetro.com	Telephone: (432) 682-7472 (x1006)	
18. OCD Approval: Permit Application (including clipters plan) Closere Plant (only	\sim	
OCD Representative Signature:	Approval Date: <u>9 16 1</u>	3
Euveranmental Specialist	V	
Title: OCD	Permit Number: <u>P1-04235</u>	· · · · · · · · · · · · · · · · · · ·
^{19.} Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to impler The closure report is required to be submitted to the division within 60 days of the comp section of the form until an approved closure plan has been obtained and the closure ac	letion of the closure activities. Please do not	
	losure Completion Date:	
20. Clours Mathadi		
Closure Method:		
	sure Method 🗌 Waste Removal (Closed-lo	oop systems only)
Waste Excavation and Removal On-Site Closure Method Alternative Closure Closure Method If different from approved plan, please explain. 21. Closure Report Attachment Checklist: Instructions: Each of the following items must	``````````````````````````````````````	
Waste Excavation and Removal On-Site Closure Method Alternative Closure If different from approved plan, please explain. If different from approved plan, please explain. Closure Report Attachment Checklist: Instructions: Each of the following items must mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) NA (State	t be attached to the closure report. Please in	
Waste Excavation and Removal On-Site Closure Method Alternative Closure If different from approved plan, please explain. If different from approved plan, please explain. If different from approved plan, please explain. It. Closure Report Attachment Checklist: Instructions: Each of the following items must mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) NA (State X) X Plot Plan (for on-site closures and temporary pits)	at be attached to the closure report. Please in	
Waste Excavation and Removal On-Site Closure Method Alternative Closure Closure for approved plan, please explain. If different from approved plan, please explain. It Closure Report Attachment Checklist: Instructions: Each of the following items must mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) NA (State X) X Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) NA (In-Place Buria) X Waste Material Sampling Analytical Results (required for on-site closure)	at be attached to the closure report. Please in	
Waste Excavation and Removal On-Site Closure Method Alternative Closure If different from approved plan, please explain. If different from approved plan, please explain. If different from approved plan, please explain. It. Closure Report Attachment Checklist: Instructions: Each of the following items must mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) NA (State X) X Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) NA (In-Place Buria) X Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number NA (no off-site disposal)	at be attached to the closure report. Please in	
Waste Excavation and Removal On-Site Closure Method Alternative Closure Closure for approved plan, please explain. If different from approved plan, please explain. It. Closure Report Attachment Checklist: Instructions: Each of the following items must mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) NA (State X) X Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) NA (In-Place Buria) X Waste Material Sampling Analytical Results (required for on-site closure)	at be attached to the closure report. Please in	
Waste Excavation and Removal On-Site Closure Method Alternative Closure If different from approved plan, please explain. If different from approved plan, please explain. It Closure Report Attachment Checklist: Instructions: Each of the following items must mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) NA (State Notice (Surface owner and temporary pits) Confirmation Sampling Analytical Results (if applicable) NA (In-Place Buriae) 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) Site Reclamation (Photo Documentation)	at be attached to the closure report. Please in	dicate, by a check

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22.			
Operator Closure Certification:			
I hereby certify that the information and att belief. I also certify that the closure compl			ate and complete to the best of my knowledge a s specified in the approved closure plan.
Name (Print): Richard Wright		Title:	Production Superintendent
Signature: Richard L.W.	ight	Date:	December 23, 2013
e-mail address: rwright@cazape	etro.com	Telephone:	(432) 682-7472 (x-1006)

approved Environmental Specialist A state

NMUCD-DISTRICT I 7/02/14