

## VANGUARD NATURAL RESOURCES

5847 San Felipe, Suite 3000 Houston, Texas 77057 (832) 327-2255

## Onsurez #1 2RP-2397

## Termination Request

API No. 30-015-23592

Release Date: June 13<sup>th</sup>, 2014

Unit Letter C, Section 11, Township 23S, Range 28E



CONSULTING & SAFETY

PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

## December 16<sup>th</sup>, 2014

#### Mike Bratcher

New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau – District 2 811 S. First St. Artesia, NM 88210

> RE: Termination Request Vanguard Onsurez #1 (2RP-2397) UL/C sec. 11 T23S R28E API No. 30-015-23592

Mr. Bratcher:

Vanguard Natural Resources (Vanguard) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

## **Background and Previous Work**

The site is located approximately 3.4 miles northeast of Loving, New Mexico at UL/C sec. 11 T23S R28E. USGS records indicate that groundwater will likely be encountered at a depth of approximately 16 +/- feet.

On June 13<sup>th</sup>, 2014, Vanguard discovered a release of oil and produced water. A separator pop off released a mist of 10 barrels of oil and produced water over 8,871 square feet of battery pad and pasture land. A total of 5 barrels of fluid was recovered. Vanguard submitted an initial C-141 to NMOCD on July 25<sup>th</sup>, 2014, which was approved on July 28<sup>th</sup>, 2014 (Appendix A).

RECS personnel were on site beginning on June 19<sup>th</sup>, 2014. Two points within the pasture area were sampled at the surface and with depth (Figure 1). All samples were field tested for chlorides and organic vapors and then sent to a commercial laboratory for analysis (Appendix B). Point 1 was advanced to a depth of 1 ft bgs where the 1 ft bgs sample returned a chloride value of 768 mg/kg, a Gasoline Range Organics (GRO) reading of non-detect and a Diesel Range Organics (DRO) reading of 153 mg/kg. Point 2 was also advanced to a depth of 1 ft bgs where the 1 ft bgs sample returned chloride, GRO and DRO values of non-detect.

The overspray on the lease pad was not sampled; because, the staining was so unpronounced that by August 5<sup>th</sup>, 2014, the staining was no longer visible.

Based on the laboratory analysis data, a Corrective Action Plan (CAP) was written and submitted to NMOCD on August 20<sup>th</sup>, 2014. The CAP stated that the release in the pasture area would be scraped down 1 ft to 1.5 ft. Once the scrape was completed, a composite bottom sample from the scrape would be taken and field tested for chloride and organic vapors. If field testing

indicated that the bottom composite would not return laboratory chloride, GRO and DRO readings below regulatory standards, the scrape would be advanced to a depth where field sampling indicated that these constituents would return laboratory readings below regulatory standards. The final bottom composite of the scrape would be taken to a commercial laboratory to confirm that chloride, GRO and DRO readings returned values below regulatory standards.

All excavated soils would be evaluated for use as backfill, and any soils that did not meet regulatory standards would be sent to a NMOCD approved facility for disposal. Clean soil would be imported to the site to replace any soils taken for disposal. The clean soil would be blended with the remaining excavated soils to use as backfill. A sample of the blended soil would be taken to a commercial laboratory to confirm that chloride, GRO and DRO readings returned values below regulatory standards. The scrapes would be backfilled with the blended soil and contoured to the surrounding location. The disturbed pasture area would then be seeded with a blend of native vegetation.

NMOCD approved the CAP on August 27<sup>th</sup>, 2014, with two stipulations. The first stipulation asserted that all the excavated soils were to be disposed at a NMOCD approved facility, since blending of soils would not be permitted. The second stipulation asserted that confirmation samples needed to be provided for Point 1 and for the overspray area.

CAP activities began at the site on August 5<sup>th</sup>, 2014. Point 1 was augured to a depth of 1.5 ft bgs, and the 1.5 ft bgs sample was field tested for chlorides and organic vapors. The sample was then taken to a commercial laboratory for analysis, which returned a chloride value of 240 mg/kg and a GRO and DRO value of non-detect (Appendix C). A 5 point surface composite sample of the overspray area was taken and field tested for chlorides and organic vapors. The sample was then taken to a commercial laboratory for analysis, which returned a chloride value of 208 mg/kg, a GRO value of non-detect and a DRO value of 200 mg/kg. Based on these readings, no further actions were warranted for the overspray area.

The release area in the pasture was scraped down to 1.5 ft bgs. At the base of the scrape, a 5 point bottom composite sample was taken and field tested for chlorides and organic vapors. The composite was then taken to a commercial laboratory for analysis, which returned a chloride value of 160 mg/kg, a GRO reading of non-detect and a DRO reading of 130 mg/kg. Based on the laboratory data, NMOCD gave verbal approval to backfill the scrape on September 15<sup>th</sup>, 2014.

A total of 332 cubic yards of contaminated soil was taken to a NMOCD approved facility for disposal. A total of 492 cubic yards of top soil was imported to the site to serve as backfill. A sample of this imported top soil was field tested for chlorides and organic vapors. The sample was then taken to a commercial laboratory for analysis, which returned a chloride value of non-detect. The site was backfilled with the imported top soil and contoured to the surrounding location. On September 29<sup>th</sup>, 2014, soil amendments were added to the disturbed area, and the disturbed area was seeded with Lea County Mix.

Photo documentation of the field activities can be found in Appendix D.

Given that Vanguard has completed the actions as stipulated in the NMOCD approved CAP, Vanguard respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix E.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

Lara Weinheimer

**Project Scientist** 

**RECS** 

(575) 441-0431

## Attachments:

Figure 1 – Initial Sampling Data

Figure 2 – Excavation Map

Appendix A – Initial C-141

Appendix B – Initial Sampling Labs

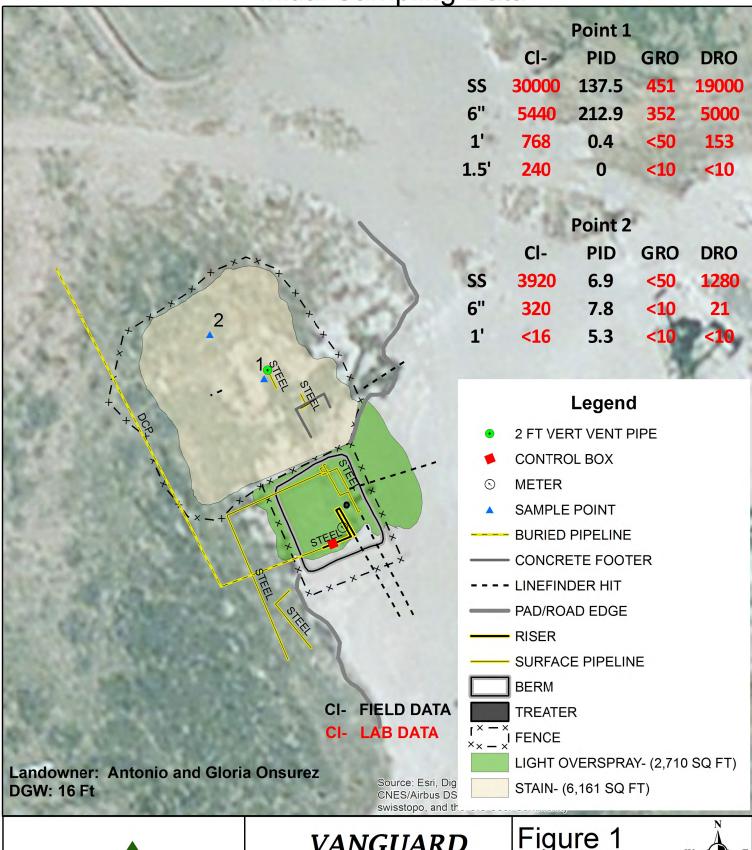
Appendix C – Remediation Labs

Appendix D – Photo Documentation

Appendix E – Final C-141

## Figures

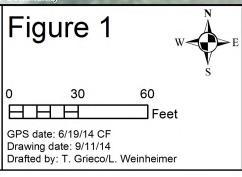
**Initial Sampling Data** 



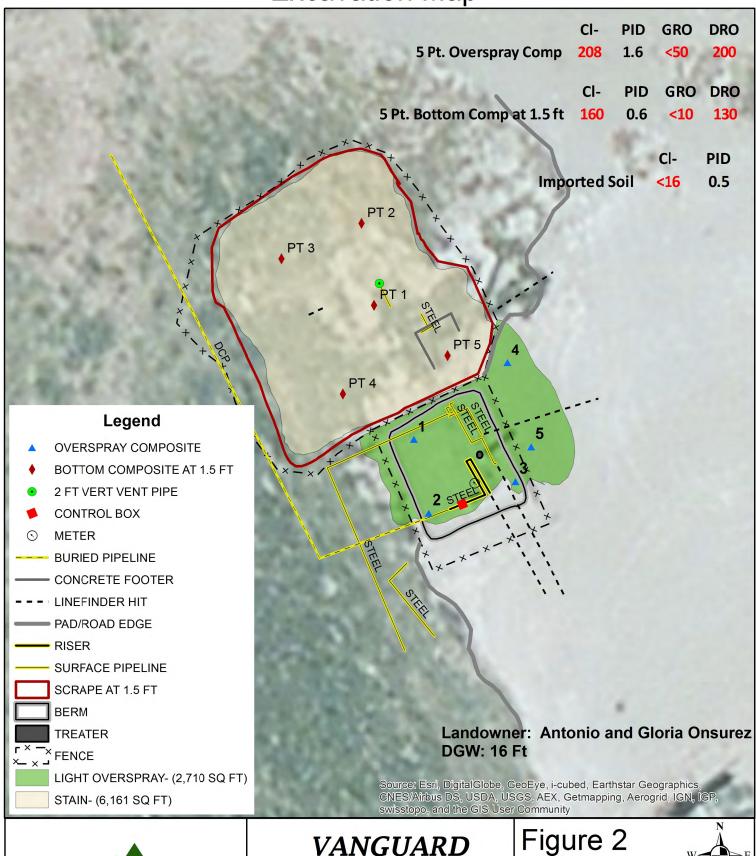


## VANGUARD ONSUREZ #1

UL C SECTION 11 T-23-S R-28-E EDDY COUNTY, NM



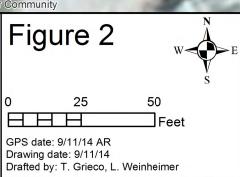
## **Excavation Map**





## VANGUARD ONSUREZ #1

UL C SECTION 11 T-23-S R-28-E EDDY COUNTY, NM



# Appendix A Initial C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

NAB142	10518	20	Rel	ease Notifi	cation	and Co	orrective A	ction		ial Parant
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Facility Na						Facility Typ				
Surface Ov	vner Antoi	nio and Glor	ia Onsure	z Mineral	Owner				APINO	o. 30-015-23592
						N OF RE	FASE			
Unit Letter	Section 11	Township 23s	Range 28 e	Feet from the 672		South Line	Feet from the 1773	East/ FWL	West Line	County EDDY
<u> </u>		Latit	ude 32	325488		Longitude	e -104	4.0607	43	
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Type of Rele	ease Oil and	d Produced W	ater				Release 10 BBL	S	Volume	Recovered 5 BBLS
		nd Gas separa		f		Date and I	lour of Occurrence	ce	Date and 14/9AM	Hour of Discovery 6-13-
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By Whom?						Date and F	lour	-		
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		E	Yes 🛭	No					244.5	
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		and Cleanup and Cl			red. The	site will be a	ssessed and a Cor	rective	Action plan	n will be submitted to NMOCD.
regulations a public health should their or the enviro	all operators or the envi operations be onment. In a	are required to ronment. The nave failed to	o report as acceptana adequately OCD accep	nd/or file certain ce of a C-141 rep investigate and	release no ort by the remediate	otifications a e NMOCD m e contaminati	nd perform correct arked as "Final R on that pose a three the operator of	etive act eport" of eat to g respons	tions for rel does not rel round wate libility for o	suant to NMOCD rules and leases which may endanger lieve the operator of liability er, surface water, human health compliance with any other
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Title: Produ	ction Foren	nan				Approval Da	te: 7/28/14		Expiration	Date: NA
E-mail Addr	ess: mjones	@vnrlle.com				Conditions of			0	Attached
Date:			Phone	575-390-4611			ation per OCD			The same of the sa
	itional She	ets If Necess			(		SUBMIT REM			RP2 - 2397

## Appendix B Initial Sampling Labs



June 26, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN

RE: ONSUREZ #001

HOBBS, NM 88240

Enclosed are the results of analyses for samples received by the laboratory on 06/24/14 10:22.

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">www.tceq.texas.gov/field/ga/lab</a> accred 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.

Celey D. Keene

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. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 06/24/2014 Sampling Date: 06/19/2014

Reported: 06/26/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

## Sample ID: POINT 1 @ SURFACE (H401886-01)

Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	30000	16.0	06/25/2014	ND	416	104	400	8.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	451	100	06/24/2014	ND	164	82.0	200	2.21	
DRO >C10-C28	19000	100	06/24/2014	ND	184	92.0	200	3.27	

Surrogate: 1-Chlorooctane 180 % 65.2-140 Surrogate: 1-Chlorooctadecane 338 % 63.6-154

#### Sample ID: POINT 1 @ 6" (H401886-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5440	16.0	06/25/2014	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	352	100	06/24/2014	ND	164	82.0	200	2.21	
DRO >C10-C28	5000	100	06/24/2014	ND	184	92.0	200	3.27	

Surrogate: 1-Chlorooctane 144 % 65.2-140
Surrogate: 1-Chlorooctadecane 216 % 63.6-154

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 06/24/2014 Sampling Date: 06/19/2014

Reported: 06/26/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

### Sample ID: POINT 2 @ SURFACE (H401886-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	06/25/2014	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	06/25/2014	ND	164	82.0	200	2.21	
DRO >C10-C28	1280	50.0	06/25/2014	ND	184	92.0	200	3.27	
DRO >C10-C28  Surrogate: 1-Chlorooctane	<b>1280</b>			ND	184	92.0	200	3.27	

Surrogate: 1-Chlorooctadecane 139 % 63.6-154

89.4 %

63.6-154

## Sample ID: POINT 2 @ 6" (H401886-04)

Surrogate: 1-Chlorooctadecane

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/25/2014	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/25/2014	ND	164	82.0	200	2.21	
DRO >C10-C28	21.0	10.0	06/25/2014	ND	184	92.0	200	3.27	
Surrogate: 1-Chlorooctane	85.8	% 65.2-14	0						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 06/24/2014 Sampling Date: 06/19/2014

Reported: 06/26/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

#### Sample ID: POINT 2 @ 1' (H401886-05)

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	06/25/2014	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/25/2014	ND	164	82.0	200	2.21	
DRO >C10-C28	<10.0	10.0	06/25/2014	ND	184	92.0	200	3.27	
Surrogate: 1-Chlorooctane	81.3	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	86.5	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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### **Notes and Definitions**

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or

matrix interference's.

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

Cardinal Laboratories \*=Accredited Analyte

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

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H401886	Point 1 @ Surface	G	1			1				V		6-19-2014		X	X	-	-					- 0
2	Point 1 @ Surface	G	1			1				1		1	METO HM		1×	+						
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PLEASE MOTE: Leading and Usingges, Cardinan's receiving and caems a should remove the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

analyses. All claims including under thirty service. In no event shall Cardinal be liable for incidental or con affiliates or successors arising out of or related to the performant Relinquished By:	sequental damages, including without imitation of services hareunder by Cardinal, reads to elicities of services hareunder by Cardinal, reads to be serviced by Cardinal, reads to be serviced by Cardinal, reads to be serviced by Cardinal Red in the ser	di Hu	won	Phone Result: Pes No Add	d'I Phone #: d'I Fax #:  com; Iflores@rice-ecs.com; a; knorman@rice-ecs.com; a; edwards@rice-ecs.com;
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	3.20	Sample Condition Cool Intact Tyes Pes No No	CHECKED BY:	cursanic@rice-ecs.com Environmental Tech:	cflores @rice-ecs.com

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



August 12, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN

HOBBS, NM 88240

RE: ONSUREZ #001

Enclosed are the results of analyses for samples received by the laboratory on 08/06/14 15:05.

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.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/06/2014 Sampling Date: 08/04/2014

Reported: 08/12/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: VANGUARD

## Sample ID: PT. 1 @ 1' (H402428-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	08/07/2014	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	08/08/2014	ND	171	85.5	200	8.57	
DRO >C10-C28	153	50.0	08/08/2014	ND	180	89.9	200	9.44	
Surrogate: 1-Chlorooctane	87.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	109	% 63.6-15	4						

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



#### **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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## ARDINAL LABORATORIES

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	: RECS										BI	LL	70	- 20				-	ANAL	YSIS RE	QUEST			$\dashv$
Project Manage	r: Laura Flores	vle Nova	u	ч				P	.0.	#:														- 1
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FOR LAB USE ONLY						MAT	TRIX	-	F	PRES	ERV.	S	AMPLI	NG	0	0		1º	e e					
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		6.0° He	H		0	OOI Ye	Inta	Yes No			K	itials		Envir	onme	ental	Tecl	h:				@rice	e-ecs.	com

# Appendix C Remediation Labs



September 10, 2014

KYLE NORMAN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: ONSUREZ #001

Enclosed are the results of analyses for samples received by the laboratory on 09/09/14 8:30.

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">www.tceq.texas.gov/field/ga/lab</a> accred 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.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY

**KYLE NORMAN** 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 09/09/2014 Sampling Date: 09/09/2014

Reported: 09/10/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

## Sample ID: 5 PT COMP OVERSPRAY (H402791-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	09/09/2014	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	200	50.0	09/09/2014	ND	186	92.9	200	2.47	
Surrogate: 1-Chlorooctane	95.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	112 9	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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#### **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

Cardinal Laboratories \*=Accredited Analyte

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

Company Nam	(505) 393-2326 FAX (505) 393-2		_								_	470						ANAI	YSIS	REQ	UEST			
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cursanic@rice-ecs.com

Environmental Tech: a redecop@rice-ccs. @rice-ecs.com

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:



Sample Condition



September 11, 2014

KYLE NORMAN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: ONSUREZ #001

Enclosed are the results of analyses for samples received by the laboratory on 09/10/14 16:00.

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">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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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.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY

**KYLE NORMAN** 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 09/10/2014 Sampling Date: 09/10/2014

Reported: 09/11/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

## Sample ID: PT. 1 @ 1.5' (H402806-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>240</b> 16.0		09/11/2014	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	177	88.3	200	1.34	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	200	100	200	3.79	
Surrogate: 1-Chlorooctane	98.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	115	% 63 6-15	4						

Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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#### **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.

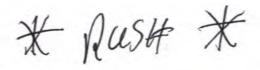
\*\*\* Insufficient time to reach temperature.

- 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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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 F						1	BILL TO						ANALYSIS REQUEST										
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PLEASE NOTE: Liability and D	Darmages. Cardinal's liability and client's exclusive remedy it those for negligence and any other cause whatsoever shall not be liable for projectional or consequental damages, inclu-	for any cla be deeme	im arisi d waiv	ed unle	ess mad	le in wr	iting a	nd rece	ived b	y Card	final wit	thin 30 days af fits incurred by	ter completion of client, its subsi	of the appli idiaries,	icable								
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



September 11, 2014

KYLE NORMAN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: ONSUREZ #001

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Accreditation applies to public drinking water matrices.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY

KYLE NORMAN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 09/10/2014 Sampling Date: 09/10/2014

Reported: 09/11/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

## Sample ID: 5 PT COMP @ 1.5 SCRAPE (H402807-01)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>160</b> 16.0		09/11/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	177	88.3	200	1.34	
DRO >C10-C28	130	10.0	09/11/2014	ND	200	100	200	3.79	
Surrogate: 1-Chlorooctane	93.8	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	111 9	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

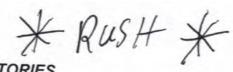
\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FA X (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Project Manager: Told Normal	BILLY	0	ANALYSIS REQUEST								
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FOR LAB USE ONLY	Fax #:  MATRIX PRESERV SAM	을	12 12	S S							
Lab I.D. Sample I.D.  1.5pt comp at 1.5 C I	MATRIX PRESERV. SAM  WASTEWATER  SOUL  SOUL  CE / COOL  OTHER:  DATI  PAGE  PA	E TIME	TPH 8015	Te							
ASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising wises. All claims including those for negligence and any other cause whatsoever shall be deemed walved un on. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, ites or successors arising out of or related to the performance of services hereunder by Cardinal, regardless linquished By:    Date:   Received   Time:	business interruptions, loss of use, or loss of profits incurred to of whether such claim is based upon any of the above stated  By:  By:  CHECKED BY:	ret completion of the applicable of completion of the applicable of clerk, its subsidiaries, wascons or otherwise.  Phone Result: Fax Result: REMARKS: email: hcon lweinheimer jkamplain@	□ Yes □ Nes □ Nes □ Yes □ Nes	swd.com; s.com; kn							
† Cardinal cannot accept verbal changes. Please fax written	Cool Intact Yes Yes No No	cursanic@rice-ecs.com Environmental Tech:  and exp@rice-ecs.com									



September 11, 2014

KYLE NORMAN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: ONSUREZ #001

Enclosed are the results of analyses for samples received by the laboratory on 09/10/14 16:00.

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">www.tceq.texas.gov/field/ga/lab</a> accred 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.

Celey D. Keine

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. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY

KYLE NORMAN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 09/10/2014 Sampling Date: 09/10/2014

Reported: 09/11/2014 Sampling Type: Soil

Project Name: ONSUREZ #001 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: VANGUARD

## Sample ID: IMPORTED SOIL (H402808-01)

Chi--id- CM4E00CL D

Chioride, SM4500CI-B	mg/	кд	Anaiyze	и ву: АР					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/11/2014	ND	400	100	400	0.00	

A ..... I ..... A D. ... A D

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



#### **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

Cardinal Laboratories \*=Accredited Analyte

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@rice-ecs.com



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 202 2222 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name K Fey Cure	11 7090010							BILL TO							ANALYSIS REQUEST							
Project Manager Kyll Worker					P.0	D. #:		14.0		T				ANA	LISIS REQU	162	_	_				
Address:					Co	mpa	nv:			1												
City: Hobbs State: NM	Zip: 88	8240			Att									Su								
Phone #: Fax #:					Address:									· S								
Project #: Project Own	ner:				City:						Σ		_	Ā								
roject Name:					Sta			Zip:		98			TPH	JS/		1 1						
Project Location: OnSuriz, #						one #	į.	Lip.		Chlorides	<b>TPH 8015</b>	E X	F	Cations/Anions	S							
ampler Name: Asy ( who will					Fax		-			o	8	BTEX	Texas	Sai	TDS							
FOR LAB USE ONLY			MATE	RIX	_	PRES	SERV.	SAMPL	ING	18	프	Ш	e		-11							
Lab I.D. Sample I.D.  402808  Toported Soil	(G)RAB OR (C)OMP	GROUNDWATER	Nos V	SLUDGE	OTHER:	ACID/BASE:	OTHER:	ДАТЕ <b>9-ю-</b> Ц	71ME 2.25	~	,			Complete								
ASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for ses. All claims including those for negligence and any other cause whatsoever shall be ce. In no event shall Cardinal be liable for incidental or consequental damages, including sor successors arising out of or related to the performance of services hereunder by linquished By:    Time:   Date:   Time:   Date:   Date:	and the state of	ed By	ess interru ether such	ung and	eceive	d by Car	dinal wit	hin 30 days after	completion of the lient, its subsidiar sone or otherwise Phone Res Fax Result REMARKS  email:	e applicable ries, e. sult: [ : [ : hcon	Yes Yes	©rice	swd.	dd'i Pi dd'i Fa		e-ecs.coi	m;					
elivered By: (Circle One)		Sam	ple Co	nditio	n	СН	FCKE	Q BY:	jkampla	ain@i	rice-e	ecs.c	om;	sedv	ards@rice-	CS COM	1,					

cursanic@rice-ecs.com

Environmental Tech:

Sampler - UPS - Bus - Other:

Sample Condition
Cool Intact
Tes Tes
No No

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

## Appendix D Photo Documentation

## Vanguard Onsurez #001 Unit Letter C, Section 11, T23S, R28E



Source of release, facing south

6/19/14



Initial release area, facing northwest

6/19/14



Initial release area, facing southeast

6/19/14



Initial release area, facing southeast



Auguring for depth, facing southwest

8/5/14



Scraping release, facing southwest

9/5/14



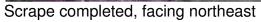
Collecting sample of overspray area, facing northeast 9/4/14



Exporting soil, facing south

9/9/14





9/9/14



Scrape completed, facing southeast

9/10/14



Scrape completed, facing southwest

9/10/14



Importing soil, facing west

9/11/14



Backfilling scrape, facing southwest





Scrape backfilled, facing south

9/23/14



Scrape backfilled, facing southwest

9/23/14



Disking site prior to seeding, facing southwest 9/29/14



Applying soil amendments, facing south

9/29/14



Seeding site, facing northeast

9/29/14



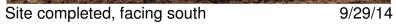
Disking amendments into soil, facing southeast 9/29/14



Site completed, facing southwest

9/29/14







Site completed, facing east 9/29/14

# Appendix E

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II Bill S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

\* Attach Additional Sheets If Necessary

## State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

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

		***************************************		28	inta Fe	e, NM 8/5	005										
Release Notification and Corrective Action																	
						OPERA'	ГOR	ial Report	ial Report     Final Repo								
Name of Co	mpany V	Vanguard Pe	rmian			Contact Mike Jones											
Address 58	847 San Fe	lipe, Ste. 30	00, Hous	ton, TX 77057		Telephone No. 575-390-4611											
Facility Nar			·	······································		Facility Type Battery											
Surface Ow	ner Anto	nio and Glor	ia Oncur	ez Mineral C													
Burrace Ow	iici Aiitoi	ino and Gior	ia Olisur		<del></del>												
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Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/\	West Line	County							
C	11	23S	28E	672		FNL	1773		FWL	Eddy							
			1	_atitude32.325	5488	_ Longitude	e104.060743	<b>.</b> .									
						_											
Type of Rele	nna Oil ar	nd Produced V	Votor	NAI	UKE	OF REL			L X 7 1	- I		~					
		nd Gas separa		<b>ff</b>			Release 10 BBI  Hour of Occurrence			Recovered							
Source of Re	icase On a	na Gas separa	ttor i op o.	ш		Date and r	tour of Occurrent	æ	9 am	d Hour of Di	scovery	6-13-14					
Was Immedia	ate Notice C		37 NZ	1 Nr. [] Nr. []		If YES, To	Whom?	***************************************									
D 3770		<u> </u>	Yes 🗵	No 🗌 Not Re	equirea							and the second s					
By Whom? Was a Water	agura Daga	h a d O	· · · · · · · · · · · · · · · · · · ·		*************	Date and I		1 777	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·		the state of the s					
was a water	course Reac		Yes 🗵	No		If YES, Volume Impacting the Watercourse.											
If a Watercou	ırse was Imi	pacted. Descri	be Fully.	ķ		<u> </u>	·										
Describe Cau	se of Proble	em and Remed	dial Action	n Taken.* Pop o	ff on se	parator, releas	ses and blew a mi	st of oil	and water	in the pastu	e. Pop	off was					
replaced and	piped to wa	ter tank.															
Describe Are	a Affected a	and Cleanup A	Action Tak	ten.* A total of 8	3,871 sq	uare feet of b	attery pad and pa	sture lar	nd was aff	ected. RECS	persor	inel were on					
site beginning	g on June 19	9 <sup></sup> , 2014. Two	o points w	ithin the pasture anced that by Augu	area wei	re sampled at	the surface and w	ith dept	th. The or	erspray on the	ie lease	pad was not					
CAP was wri	tten and sub	mitted to NM	unpronoui IOCD on	August 20 <sup>th</sup> , 2014	ISL 3 , Z	O14, me stam CD approved	the CAP on Aug	r visible	2014 w	n the laborat	ory ana	lysis data, a					
stipulation as	serted that a	all the excavat	ed soils w	ere to be disposed	ata Ni	MOCD approved	ved facility since	ust 4/, hlendi	, 2014, WI	ui two supuii would not b	uons. . pormi	ine first					
second stipul	ation asserte	ed that confirm	nation san	nples needed to be	e provid	led for Point 1	and for the over	enray ar	ea CAP	activities bec	e permi	a site on					
August 5 <sup>th</sup> , 20	014. Point 1	l was augured	to a dept	h of 1.5 ft bgs. Th	he samo	le was taken	to a commercial l	ahoratoi	rv for ana	vsis which r	au at ui eturned	a chlorida					
value of 240	mg/kg and a	GRO and DI	RO value	of non-detect. A	5 point	surface comp	osite sample of th	e oversi	nrav area	was taken an	1 sent ta	a cinoride					
commercial la	aboratory fo	or analysis. T	he sample	returned a chlorid	de value	of 208 mg/l	cg, a GRO value	of non-	detect and	a DRO value	of 200	) ma/ka					
Based on thes	se readings,	no further act	ions were	warranted for the	oversp	ray area. The	release area in the	e pastur	e was scra	ned down to	1.5 ft b	ogs At the					
base of the sc	rape, a 5 po	int bottom co	mposite sa	ample was taken a	and sent	to a commer	cial laboratory for	analysi	is. The sa	mple returne	d a chlo	ride value of					
160 mg/kg, a	GRO reading	ng of non-dete	ect and a I	ORO reading of 13	30 mg/k	g. Based on	the laboratory dat	a. NMC	CD gave	verbal appro	val to h	ackfill the					
scrape on Sep	ptember 15 <sup>u</sup>	, 2014. A tota	al of 332 o	cubic yards of con	ıtaminat	ted soil was ta	ken to a NMOCI	approv	ved facilit	y for disposa	. A tot	al of 372					
cubic yards o	f top soil wa	as imported to	the site to	o serve as backfill	l. A san	nple of this in	nported top soil w	as takei	n to a com	mercial labor	atory f	or analysis					
and returned	a chloride v	alue of non-de	etect. The	site was backfille	ed with	the imported	top soil and conto	oured to	the surro	anding locati	on. On	September					
29 , 2014, 80	fr that the	nts were adde	ed to the d	isturbed area, and	the dist	turbed area w	as seeded with Le	a Coun	ty Mix.								
regulations al	l operatore	mormanon gr era required to	ven above	is true and comp nd/or file certain re	lete to ti	he best of my	knowledge and u	indersta	nd that pu	rsuant to NM	OCD r	ules and					
public health	or the envir	conment The	accentano	te of a C-141 repo	ort by th	e NMOCD m	arked as "Final D	enort"	logs not r	lieuses wnich	may e	ndanger					
should their o	perations h	ave failed to a	dequately	investigate and re	emediat	e contaminati	on that nose a thr	eat to m	round wat	er surface w	raior or	men beelth					
or the environ	ment. In a	ddition, NMO	CD accep	tance of a C-141	report d	oes not reliev	e the operator of	respons	ibility for	compliance v	with any	nian neann					
federal, state,					report a		o the operator or	гозрона	ionity for	compitation	viui aii	youici					
	7,1			· · · · · · · · · · · · · · · · · · ·		the section of the se	OIL CON	SERV	ATION	DIVISIO	N						
Signature:	Mu	pe Jose					311 3311	<u> </u>	111101	· DI VIOI	<u> </u>						
Printed Name	: M.	KeJE	one.	2		Approved by	Environmental S	pecialis	t:	787-77-78-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		10					
Title: Pro	ducti	ion Fo	remo	w		Approval Dat	te:		Expiration	ı Date:							
										a Date.							
E-mail Addre		unes (ex				Conditions of	Approval:			Attached		]					
Date: 12 -	16-14		Phone:	575-390-46	$\parallel \parallel \parallel$												