

R. T. HICKS CONSULTANTS, LTD.

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

March 9, 2017

Mr. Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, New Mexico 88211
Via e-mail to mike.bratcher@state.nm.us

RE: Strata - Roadrunner Federal #2H Temporary Pit
API #30-015-41041, Permit #P2-13-0016

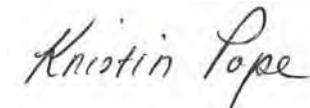
Mr. Bratcher:

On behalf of Strata Production Company, R.T. Hicks Consultants submits this closure report for the above-referenced temporary pit in accordance with the BLM-approved C-144 closure plan. This report includes the following information listed in Part 21 of the C-144 form:

Requirements	Location in this Submission
Proof of Closure Notice (to surface owner and Division)	Attachment 1
Proof of Deed Notice (on-site closure on private land only)	Not applicable; BLM (no deed)
Plot Plan, C-105 form (for on-site closures and temporary pits)	Attachment 2
Confirmation Sampling Analytical Results	Not applicable
Waste Material Sampling Analytical Results (required for on-site closure)	Attachment 3
Disposal Facility Name and Permit Number	Not applicable; on-site closure
Soil Backfilling and Cover Installation	Attachment 4
Re-vegetation Application Rates and Seeding Technique	Attachment 5
Site Reclamation (photo documentation)	To follow
Updated C-144 form	Attachment 6

R.T. Hicks Consultants will notify NMOCD and provide photo-documentation when re-vegetation obligations described in subsection H of 19.15.17.13 NMAC are met.

Sincerely,
R.T. Hicks Consultants



Kristin Pope
Project Geologist

Copy: Strata, BLM-Carlsbad

ATTACHMENT 1

R. T. HICKS CONSULTANTS, LTD.

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

January 30, 2017

Mr. Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, New Mexico 88210
Via e-mail to mike.bratcher@state.nm.us

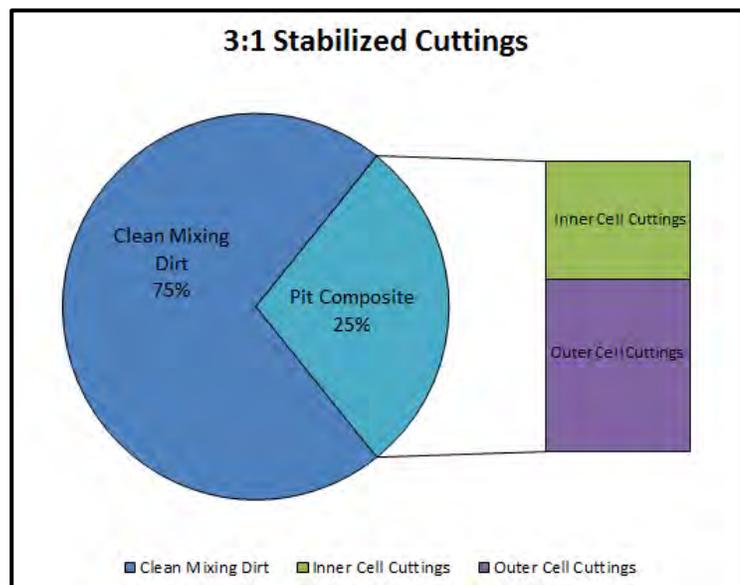
RE: Strata - Roadrunner Federal #2H Temporary Pit, In-place Burial Notice
API #30-015-41041, Permit #P2-13-0016
Unit D, Section 25, T23S, R30E, Eddy County

Mr. Bratcher:

On behalf of Strata Production Company, R. T. Hicks Consultants provides this notice to NMOCD with a copy to the BLM (email and hand-delivery with receipt stamp) that closure operations at the above-referenced pit is scheduled to begin on **Thursday, February 2, 2017**. The closure process should require about three weeks, depending on the weather and the availability of machinery.

The "In-place Burial" closure plan for the pit was submitted with the C-144 temporary pit application. NMOCD approved the application with the exception of the closure plan on June 19, 2014. In several email communications, NMOCD deferred to BLM regarding the in-place pit closure and the sundry that applied for in-place closure was approved by BLM on June 4, 2014. The rig moved from the well on September 1, 2014 and the pit was then used to contain flow-back fluids from the completion portion of the lateral. Hydraulic stimulation of the remainder of lateral and final completion of the well will occur within the next few months.

Samples collected on January 5, 2017 consisted of a 3-point composite from the inner horseshoe cell, a 4-point composite from the outer horseshoe cell, and a 4-point composite from the clean soil on site that will be used for stabilization mixing. The table on page 2 of this notice demonstrates the calculated concentration for "3:1 stabilized" material that results when the pit contents are combined with available mixing soil during the closure process. The calculated value mathematically mixes 3 parts clean soil (mixing dirt) with 1 part of the weighted pit composite calculation, as depicted in the adjacent chart. The pit composite consists of 48.64% solids from the inner cell of the drilling pit and 51.36% of the solids from the outer cell, representative of the volume of cuttings in each cell.



Roadrunner Federal #2H Sample Name	Sample Type	Sample Date	Chloride 80,000	Benzene 10	BTEX 50	GRO+ DRO 1000	TPH GRO+DRO +extDRO 2500
Inner Composite	3-pt field comp.	1/5/2017	80,000	0.064	1.694	123	123
Outer Composite	4-pt field comp.	1/5/2017	52,000	0.69	16.59	1,190	1,600
Mixing Dirt	4-pt field comp.	1/5/2017	ND	ND	ND	ND	ND
3:1 Stabilized CALCULATED (3 parts mixing dirt, 1 part weighted pit cuttings)			16,404.80	0.10	2.34	167.75	220.40

ND = Not detected at the laboratory's reporting limit

All values are mg/kg

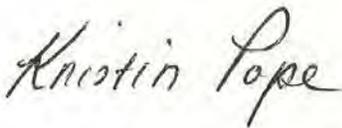
The formula used in the table:

$$3:1 \text{ Stabilized Solids} = \frac{[(\text{Outer Composite} * 0.5136) + (0.4864 * \text{Inner Composite}) + (3 * \text{Mixing Dirt})]}{4}$$

Laboratory analyses of the component samples and the calculation of 3:1 stabilized cuttings "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 listed in Table II of 19.15.17.13 NMAC." Thank you for your consideration of this notice of in-place closure. I will follow-up this notice to you with a phone call today as required by the Pit Rule.

Sincerely,

R.T. Hicks Consultants



Kristin Pope

Copy: Strata Production Co., BLM-Carlsbad Field Office

From: [Mail Delivery Subsystem](#)
To: kristin@rthicksconsult.com
Subject: Return receipt
Date: Monday, January 30, 2017 4:20:42 PM
Attachments: [details.txt](#)
[Untitled attachment 00106.txt](#)

The original message was received at Mon, 30 Jan 2017 16:20:35 -0700
from ame7.swcp.com [216.184.2.70]

----- The following addresses had successful delivery notifications -----
<jamos@blm.gov> (relayed to non-DSN-aware mailer)
<mike.bratcher@state.nm.us> (relayed to non-DSN-aware mailer)
<Crystal.Weaver@state.nm.us> (relayed to non-DSN-aware mailer)

----- Transcript of session follows -----
<jamos@blm.gov>... relayed; expect no further notifications
<Crystal.Weaver@state.nm.us>... relayed; expect no further notifications
<mike.bratcher@state.nm.us>... relayed; expect no further notifications

ATTACHMENT 2

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised August 1, 2011 1. WELL API NO. 30-015-41041 2. Type of Lease <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> FED/INDIAN 3. State Oil & Gas Lease No.
--	---	---

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing: <input type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input checked="" type="checkbox"/> C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)	5. Lease Name or Unit Agreement Name Roadrunner Federal 6. Well Number: #2H
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7. Type of Completion:
 NEW WELL WORKOVER DEEPENING PLUGBACK DIFFERENT RESERVOIR OTHER

8. Name of Operator STRATA PRODUCTION COMPANY	9. OGRID 21712
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10. Address of Operator	11. Pool name or Wildcat
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12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released 9/1/2014	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
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18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run
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22. Producing Interval(s), of this completion - Top, Bottom, Name

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED						
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED								

28. PRODUCTION

Date First Production	Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>)	Well Status (<i>Prod. or Shut-in</i>)					
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (<i>Corr.</i>)	

29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>)	30. Test Witnessed By
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31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.
 PLATE I ATTACHED

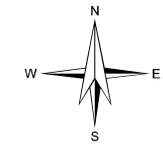
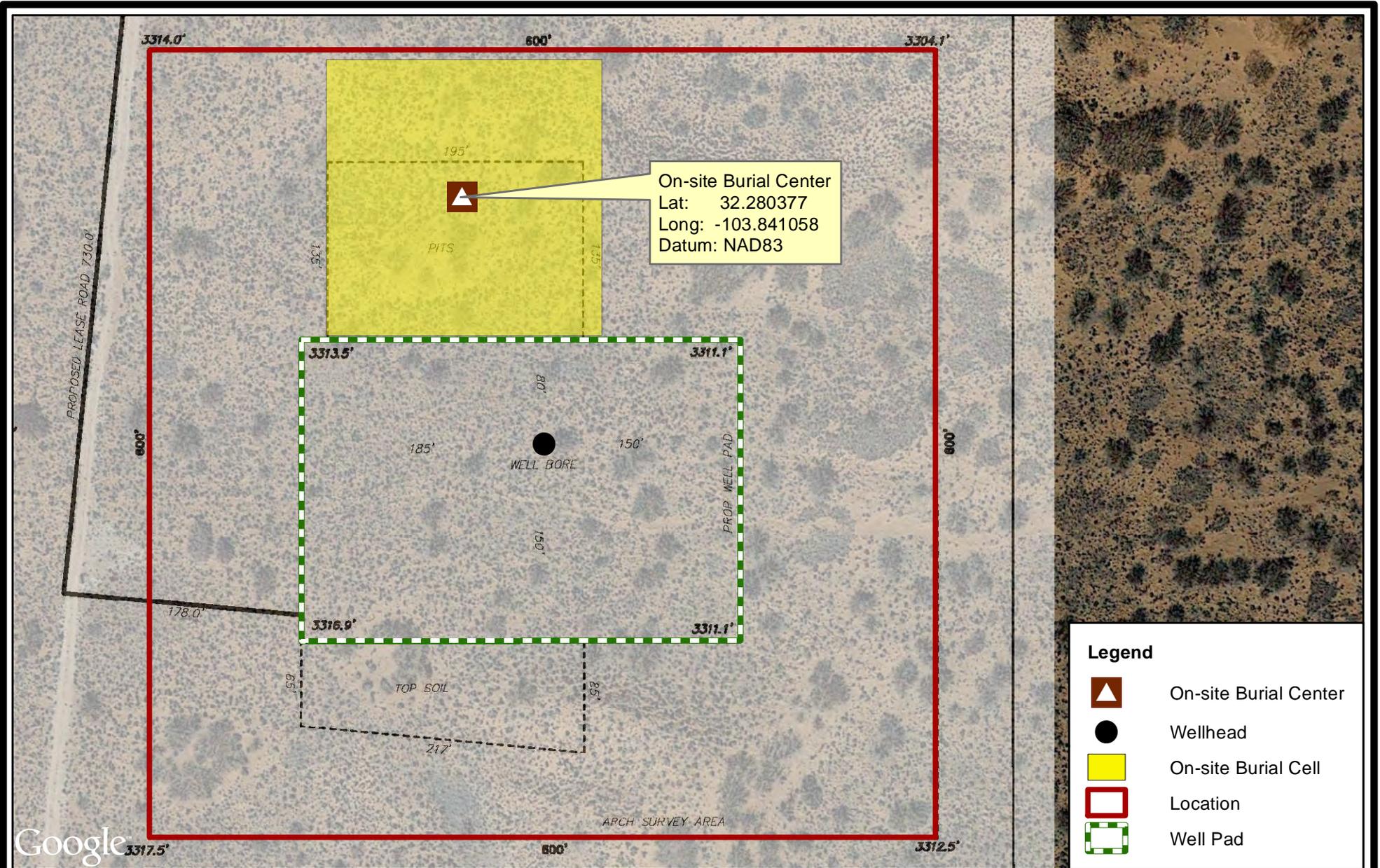
33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude 32.280377° Longitude -103.841058° NAD 1927 1983

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature	Printed Name	Title		Date
	KRISTIN POPE	AGENT FOR STRATA		3/9/2017

E-mail Address kristin@rthicksconsult.com



R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

On-Site Burial Location of Temporary Pit
 Relative to Well Pad
 Strata Production Company, Inc
 Forty Niner Ridge - Roadrunner Fed #2H

Plate 1
 Form C-105
 March 2017

ATTACHMENT 3

Waste Material Sampling Analytical Results

On January 5, 2017, composite samples were collected from the contents of the outer and inner cells of the temporary pit and from the clean soil of the berms beneath the liner. The composite samples were submitted to Hall Environmental Analysis Laboratory in Albuquerque for BTEX (8021B), GRO+DRO (8015D), TPH (8015D), and Chloride (300.0) analyses. These component samples were used to determine a calculated concentration for the “3:1 stabilized cuttings” by mathematically combining 1 part pit contents and 3 parts clean soil (mixing dirt). The weighted pit composite calculation consisted of 48.64% solids from the inner cell of the drilling pit and 51.36% of the solids from the outer cell, representative of the volume of cuttings in each cell. The following formula was used:

$$3:1 \text{ Stabilized Solids} = \frac{[(\text{Outer Composite} * 0.5136) + (0.4864 * \text{Inner Composite}) + (3 * \text{Mixing Dirt})]}{4}$$

As shown in the table below, laboratory analyses of the component samples and the calculation of the “3:1 Stabilized Cuttings” concentration “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 listed in Table II of 19.15.17.13 NMAC.”

Roadrunner Federal #2H Sample Name	Sample Type	Sample Date	Chloride <i>80,000</i>	Benzene <i>10</i>	BTEX <i>50</i>	GRO+ DRO <i>1000</i>	TPH GRO+DRO +extDRO <i>2500</i>
Inner Composite	3-pt field comp.	1/5/2017	80,000	0.064	1.694	123	123
Outer Composite	4-pt field comp.	1/5/2017	52,000	0.69	16.59	1,190	1,600
Mixing Dirt	4-pt field comp.	1/5/2017	ND	ND	ND	ND	ND
3:1 Stabilized CALCULATED <i>(3 parts mixing dirt, 1 part weighted pit cuttings)</i>			16,404.80	0.10	2.34	167.75	220.40

ND = Not detected at the laboratory's reporting limit

All values are mg/kg



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

January 11, 2017

Randall Hicks

R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW
Suite F-142
Albuquerque, NM 87104
TEL: (505) 266-5004
FAX (505) 266-0745

RE: Road Runner Fed 2

OrderNo.: 1701210

Dear Randall Hicks:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/6/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1701210

Date Reported: 1/11/2017

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: Outer Comp

Project: Road Runner Fed 2

Collection Date: 1/5/2017 12:00:00 PM

Lab ID: 1701210-001

Matrix: SLUDGE

Received Date: 1/6/2017 11:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	52000	3000		mg/Kg	2E	1/11/2017 3:58:11 AM	29613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	820	13		mg/Kg	1	1/10/2017 1:56:35 PM	29592
Motor Oil Range Organics (MRO)	410	65		mg/Kg	1	1/10/2017 1:56:35 PM	29592
Surr: DNOP	110	70-130		%Rec	1	1/10/2017 1:56:35 PM	29592
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	370	24		mg/Kg	5	1/9/2017 7:15:33 PM	29571
Surr: BFB	259	68.3-144	S	%Rec	5	1/9/2017 7:15:33 PM	29571
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.69	0.12		mg/Kg	5	1/9/2017 7:15:33 PM	29571
Toluene	4.7	0.24		mg/Kg	5	1/9/2017 7:15:33 PM	29571
Ethylbenzene	2.3	0.24		mg/Kg	5	1/9/2017 7:15:33 PM	29571
Xylenes, Total	8.9	0.47		mg/Kg	5	1/9/2017 7:15:33 PM	29571
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	5	1/9/2017 7:15:33 PM	29571

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1701210

Date Reported: 1/11/2017

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: Inner Comp

Project: Road Runner Fed 2

Collection Date: 1/5/2017 11:42:00 AM

Lab ID: 1701210-002

Matrix: SLUDGE

Received Date: 1/6/2017 11:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	80000	3000		mg/Kg	2E	1/11/2017 4:10:36 AM	29613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	79	12		mg/Kg	1	1/10/2017 2:40:07 PM	29592
Motor Oil Range Organics (MRO)	ND	62		mg/Kg	1	1/10/2017 2:40:07 PM	29592
Surr: DNOP	91.6	70-130		%Rec	1	1/10/2017 2:40:07 PM	29592
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	44	4.7		mg/Kg	1	1/9/2017 8:02:38 PM	29571
Surr: BFB	177	68.3-144	S	%Rec	1	1/9/2017 8:02:38 PM	29571
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.064	0.024		mg/Kg	1	1/9/2017 8:02:38 PM	29571
Toluene	0.53	0.047		mg/Kg	1	1/9/2017 8:02:38 PM	29571
Ethylbenzene	0.22	0.047		mg/Kg	1	1/9/2017 8:02:38 PM	29571
Xylenes, Total	0.88	0.094		mg/Kg	1	1/9/2017 8:02:38 PM	29571
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	1/9/2017 8:02:38 PM	29571

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1701210

Date Reported: 1/11/2017

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: Mixing

Project: Road Runner Fed 2

Collection Date: 1/5/2017 11:50:00 AM

Lab ID: 1701210-003

Matrix: SOIL

Received Date: 1/6/2017 11:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	1/10/2017 2:19:06 PM	29613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	1/10/2017 3:23:40 PM	29592
Motor Oil Range Organics (MRO)	ND	74		mg/Kg	1	1/10/2017 3:23:40 PM	29592
Surr: DNOP	98.4	70-130		%Rec	1	1/10/2017 3:23:40 PM	29592
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/9/2017 11:47:28 AM	29571
Surr: BFB	87.5	68.3-144		%Rec	1	1/9/2017 11:47:28 AM	29571
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/9/2017 11:47:28 AM	29571
Toluene	ND	0.048		mg/Kg	1	1/9/2017 11:47:28 AM	29571
Ethylbenzene	ND	0.048		mg/Kg	1	1/9/2017 11:47:28 AM	29571
Xylenes, Total	ND	0.095		mg/Kg	1	1/9/2017 11:47:28 AM	29571
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	1/9/2017 11:47:28 AM	29571

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

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701210

11-Jan-17

Client: R.T. Hicks Consultants, LTD

Project: Road Runner Fed 2

Sample ID	MB-29613	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	29613	RunNo:	39954					
Prep Date:	1/10/2017	Analysis Date:	1/10/2017	SeqNo:	1251915	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29613	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	29613	RunNo:	39954					
Prep Date:	1/10/2017	Analysis Date:	1/10/2017	SeqNo:	1251916	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701210

11-Jan-17

Client: R.T. Hicks Consultants, LTD

Project: Road Runner Fed 2

Sample ID MB-29592	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 29592		RunNo: 39921							
Prep Date: 1/9/2017	Analysis Date: 1/10/2017		SeqNo: 1251281		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		94.9	70	130			

Sample ID LCS-29592	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 29592		RunNo: 39921							
Prep Date: 1/9/2017	Analysis Date: 1/10/2017		SeqNo: 1251309		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.0	63.8	116			
Surr: DNOP	4.5		5.000		89.3	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701210

11-Jan-17

Client: R.T. Hicks Consultants, LTD

Project: Road Runner Fed 2

Sample ID MB-29571	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 29571		RunNo: 39910							
Prep Date: 1/6/2017	Analysis Date: 1/9/2017		SeqNo: 1250853		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.6	68.3	144			

Sample ID LCS-29571	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 29571		RunNo: 39910							
Prep Date: 1/6/2017	Analysis Date: 1/9/2017		SeqNo: 1250854		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.1	74.6	123			
Surr: BFB	910		1000		91.2	68.3	144			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701210

11-Jan-17

Client: R.T. Hicks Consultants, LTD

Project: Road Runner Fed 2

Sample ID MB-29571	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 29571		RunNo: 39910							
Prep Date: 1/6/2017	Analysis Date: 1/9/2017		SeqNo: 1250879		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	80	120			

Sample ID LCS-29571	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 29571		RunNo: 39910							
Prep Date: 1/6/2017	Analysis Date: 1/9/2017		SeqNo: 1250880		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	75.2	115			
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	0.96	0.050	1.000	0	96.3	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	95.5	79.2	115			
Surr: 4-Bromofluorobenzene	0.98		1.000		97.8	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: RT HICKS

Work Order Number: 1701210

RcptNo: 1

Received by/date: *AG* 01/06/17

Logged By: Ashley Gallegos 1/6/2017 11:20:00 AM *AG*

Completed By: Ashley Gallegos 1/6/2017 11:35:00 AM *AG*

Reviewed By: *AG*

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes No NA
5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
6. Sample(s) in proper container(s)? Yes No
7. Sufficient sample volume for indicated test(s)? Yes No
8. Are samples (except VOA and ONG) properly preserved? Yes No
9. Was preservative added to bottles? Yes No NA
10. VOA vials have zero headspace? Yes No No VOA Vials
11. Were any sample containers received broken? Yes No
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
13. Are matrices correctly identified on Chain of Custody? Yes No
14. Is it clear what analyses were requested? Yes No
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

Chain-of-Custody Record

Client: RT Hicks

Turn-Around Time:

Standard Rush

Project Name:

Road Runner Fed #2

Mailing Address:

Phone #: 505-238-9515
 Email or Fax#: RC@rticksconsult.com

Project Manager:

PTH

QA/QC Package: Standard Level 4 (Full Validation)

Sampler:

On Ice: Yes No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
1/05	1200	MUD	OUTER COMP	Glass 2	/	1701210
1/05	1142	MUD	INNER COMP	" "	/	-00212
1/05	1150	DIRT	MIXING	" 1	/	-00312

BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (8021)	TPH 8015B (GRO) (DRO) (MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
X	X	X								X + Chloride	
X	X	X								X	
X	X	X								X	

Analysis Request

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Relinquished by: Randall Date: 1/6/17 Time: 1120
 Relinquished by: [Signature] Date: 1/6/17 Time: 1120

Remarks: 50-100 gram samples for analysis of (INNER) & (OUTER) composite (1142) (1200)

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

ATTACHMENT 4

SOIL BACKFILLING & COVER INSTALLATION

In accordance with 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 from the temporary pit:

1. Siting criteria and operations of the pit complied with the C-144 application and the Pit Rule under which it was submitted to the NMOCD on April 16, 2014 and approved on June 19, 2014. The rig was moved from the well in the fall of 2014 but closure of this pit was delayed. Throughout the first half of 2015, Strata planned to complete the stimulation process – thus the pit remained open for use by the workover rig. Since mid-2015, Strata attempted to begin closure of this pit many times. Precipitation events in August 2015 resulted in the pit holding fresh water for several months. Pit sampling and closure was again scheduled for June 2016 and the day before sampling, the pit once again filled with rainwater.
2. On January 5, 2017, prior to the initiation of closure activities, samples of the inner and outer cells and clean soil from the berms of the pit below the liner were recovered from the pit. These component samples were analyzed for Chloride, TPH, GRO, DRO, MRO, Benzene, and BTEX at Hall Environmental Analysis Laboratory of Albuquerque, New Mexico. The resultant calculations of 3:1 stabilized cuttings, as noted in the subsequent closure notice and Attachment 3 of this report, demonstrated that the stabilized pit contents would not exceed the concentration limits of the parameters listed in Table II of the Pit Rule.
3. A closure notice was submitted to the NMOCD, District 2 office in Artesia and to the BLM via email on January 30, 2017. Verbal notice in the form of a voicemail call to NMOCD was left the same day. A hard copy of the notice was hand-delivered to the BLM Carlsbad Field Office on January 31, 2017.
4. On February 2, 2017, closure activities commenced and stabilization of the pit contents was achieved by mixing the pit contents with the dry soil beneath the liner of the pit and the dividing berms. On February 6, 2017, a paint filter test was performed by R.T. Hicks Consultants that confirmed that the process was complete and that the stabilized cuttings were located at least 4 feet below grade.
5. Following inspection, having achieved all applicable stabilization requirements associated with in-place burial, a geomembrane liner was installed to completely cover the stabilized cuttings on February 8, 2017. The pit contents were shaped to shed infiltrating water off the cap liner.

- Once the geomembrane cover was in place, approximately 4 feet or more of non-waste containing, uncontaminated, earthen material and the reserved topsoil were replaced to their relative positions in accordance with Subsection (3) of Paragraph H of 19.15.17.13 NMAC. 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 at least one foot. The surface was contoured to blend with the surrounding topography and to prevent erosion and the ponding of water over the on-site closure. This work was completed on February 10, 2017.



Mixing cuttings 2/6/2017



Backfilling over geomembrane liner
2/8/2017



Paint Filter Test on Stabilized Cuttings
2/6/2017

ATTACHMENT 5

RE-VEGETATION PROCEDURES

There were no roads or surface drainage features nearby that required restoration or preservation.

1. On February 28, 2017, JC Services seeded the topsoil of the on-site burial area using a harrow and broadcast method. Approximately 22.6 pounds of BLM #2 seed blend was applied to approximately 1.5 acres of disturbance in accordance with the supplier’s instructions for broadcasting. Current species constituents of the blend are listed on the seed bag label below and are appropriate for the soil type and conditions at this site.
2. A steel plate marking the site as an in-place pit closure has been fabricated for this location and will be placed on the surface at the center of the former pit location in accordance with Subsection (3) of Paragraph F of 19.15.17.13 NMAC.
3. The seeded area will be monitored for growth and the operator will repeat seeding until a successful vegetative cover is achieved as outlined in Subsection (5) of Paragraph H of 19.15.17.13 NMAC.
4. 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 and provide photo-documentation when it successful re-vegetation is achieved.

BLM#2 10 acres in 1 acre bags		Sales # SO-61056			
Description	Pure Seed	Germ	Dormant	Hard Seed	Origin
Bristlegrass Plains, (<i>Setaria vulpiseta</i>)	40.10%	8.00%	80.00%	0.00%	TX
Dropseed, Sand (<i>Sporobolus cryptandrus</i>)	19.33%	16.00%	76.00%	0.00%	
Lovegrass Sand, "Bend" (<i>Eragrostis trichodes</i>)	20.63%	8.00%	79.00%	0.00%	TX
Purity: 80.06%		Inert Matter: 19.82%		Other Crop Seed: 0.10%	
				Weed Seed: 0.01%	
Noxious Weeds: None		Test Date: 10/2016		Net Wt: 11.3 lbs	

ATTACHMENT 6

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

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

- Type of action: Below grade tank registration
 Permit of a pit or proposed alternative method
 Closure of a pit, below-grade tank, or proposed alternative method
 Modification to an existing permit/or registration
 Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Strata Production OGRID #: 21712
Address: PO Drawer 1030, Roswell, NM 88202
Facility or well name: Roadrunner Federal #2
API Number: 30-015-42080 41041 OCD Permit Number: 2-13-0016
U/L or Qtr/Qtr D Section 25 Township 23S Range 30E County: Eddy
Center of Proposed Design: Latitude 1220 FWL Longitude 660 FNL NAD: 1927 1983
Surface Owner: Federal State Private Tribal Trust or Indian Allotment

2.
 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 20 mil LLDPE HDPE PVC Other _____
 String-Reinforced
Liner Seams: Welded Factory Other _____ Volume 44,774 bbl Dimensions: L 210 x W 210 x D 6-10 ft Drilling Pit

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: Thickness _____ mil HDPE PVC Other _____

4.
 Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau 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)
 Four foot height, four strands of barbed wire evenly spaced between one and four feet
 Alternate. Please specify _____

6.

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)

7.

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

8.

Variations and Exceptions:

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

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

- 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.

9.

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.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

- Yes No
- NA

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 Figures 1 & 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 and discussion**

- 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 an 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 Yes No
See Figures 1 & 2

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 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are 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 19.15.17.11 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 19.15.17.9 NMAC and 19.15.17.13 NMAC
- Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
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 documents are 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 19.15.17.9 NMAC 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: _____ or Permit Number: _____

12. **Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the 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 19.15.17.12 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
- Emergency Response 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. **Proposed Closure:** 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 Fluid Management Pit
 Alternative
- 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
 Alternative Closure Method

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. **Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

Yes No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

Yes No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

Yes No

Within a 100-year floodplain.

- FEMA map

Yes No

16.

On-Site 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.*

- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Paul Ragsdale Title: Operations Manager

Signature:  Date: April 22, 2014

e-mail address: pragsdale@stratanm.com Telephone: 575-625-4020

18.

OCD Approval: Permit Application (~~including closure plan~~) Closure Plan (only) OCD Conditions (see attachment)

OCD Representative Signature: _____ Approval Date: 6/19/14

Title: Environmental Specialist OCD Permit Number: 2-13-0016

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 implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

Closure Completion Date: February 10, 2017

20.

Closure Method:

- Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)
- If different from approved plan, please explain.

21.

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

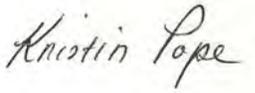
- Proof of Closure Notice (surface owner and division) n/a (Federal land)
- Proof of Deed Notice (required for on-site closure for private land only)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable) n/a (on-site closure)
- Waste Material Sampling Analytical Results (required for on-site closure)
- Disposal Facility Name and Permit Number n/a (on-site closure)
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique
- Site Reclamation (Photo Documentation) to follow when vegetation is established

On-site Closure Location: Latitude 32.280377° Longitude -103.841058° NAD: 1927 1983

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Kristin Pope Title: Agent for Strata Production Company

Signature:  Date: March 9, 2017

e-mail address: kristin@rthicksconsult.com Telephone: 575-302-6755