

8/08/2017 DATE IN	SUSPENSE	PRG ENGINEER	8/08/2017 LOGGED IN	SWD TYPE	PMAM1722133174 APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication**
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement**
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery**
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify _____**

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners**
- [B] ☒ Offset Operators, Leaseholders or Surface Owner**
- [C] ☒ Application is One Which Requires Published Legal Notice**
- [D] ☒ Notification and/or Concurrent Approval by BLM or SLO**
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,**
- [F] ☐ Waivers are Attached**

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Ben Stone		Agent for Trove Energy, LLC	8/07/17
Print or Type Name	Signature	Title	Date
		ben@sosconsulting.us	
		e-mail Address	

- SWD - 1691
 - Trove Energy, LLC
 326995
 326995

2017 AUG - 9 A 9:03
 RECEIVED OGD

L 211
 - Trove Energy,
 SWD #1
 30-015-Pending
 Pool
 SWD,
 Deviation -
 Silurian
 97869



August 7, 2017

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attn: Mr. David Catanach, Director

Re: Application of Trove Energy, LLC to permit for salt water disposal in the proposed Trove Energy SWD Well No.1, to be located in Section 13, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico.

Dear Mr. Catanach,

Please find enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to permit for disposal, the Trove Energy SWD No.1.

Trove Energy seeks to optimize efficiency, both economically and operationally, of its operations and to offer additional disposal options for operators in southeast New Mexico. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

Published legal notice ran on or about August 3, 2017 in the edition of the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit will be forwarded when received. This application also includes a wellbore schematic, area of review maps, leaseholder plats and other required information for a complete Form C-108. The well is located on private land and minerals. As an offset minerals owner, a copy of this application has been submitted to the Bureau of Land Management, Carlsbad Field Office, Oil and Gas Division.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

Ben Stone, Partner
SOS Consulting, LLC
Agent for Trove Energy, LLC

Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ***Salt Water Disposal*** and the application ***QUALIFIES*** for administrative approval.
- II. OPERATOR: ***Trove Energy, LLC (Ogrid 326495)***
ADDRESS: ***1919 North Turner, Hobbs, NM 88240***

CONTACT PARTY: ***Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850***
- III. WELL DATA: ***All well data and applicable wellbore diagrams are ATTACHED.***
- IV. ***This is not an expansion of an existing project.***
- V. ***A map is attached*** that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- *VI. A tabulation is attached of data on all wells of public record within the area of review which penetrate the proposed injection zone. ***There are NO (0) Wells in the subject AOR which Penetrate the proposed Devonian interval.*** The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged well illustrating all plugging detail. ***NO P&A Wells penetrate.***
- VII. ***The following data is ATTACHED*** on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. ***Appropriate geologic data on the injection zone is ATTACHED*** including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. ***Stimulation program – a conventional acid job may be performed to clean and open the formation.***
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). ***Well Logs will be filed with OCD.***
- *XI. ***There are 12 domestic water wells within one mile of the proposed salt water disposal well. 2 have been sampled and analyses will be forwarded upon receipt.***
- XII. ***An affirmative statement is ATTACHED that available geologic and engineering data has been examined and no evidence was found*** of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. ***"Proof of Notice" section on the next page of this form has been completed and ATTACHED. There are 4 offset lessees and/or operators within ½ mile and BLM minerals - all have been noticed. Well location is Private.***
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: ***Ben Stone*** TITLE: ***SOS Consulting, LLC agent for Trove Energy, LLC***

SIGNATURE: 

DATE: ***8/07/2017***

E-MAIL ADDRESS: ***ben@sosconsulting.us***

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

FORM C-108 – APPLICATION FOR AUTHORIZATION TO INJECT (cont.)

III. WELL DATA – *The following information and data is included (See ATTACHED Wellbore Schematic):*

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No., Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE *pursuant to the following criteria is ATTACHED.*

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

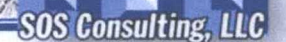
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include: ***Affidavit will be FORWARDED upon receipt.***

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

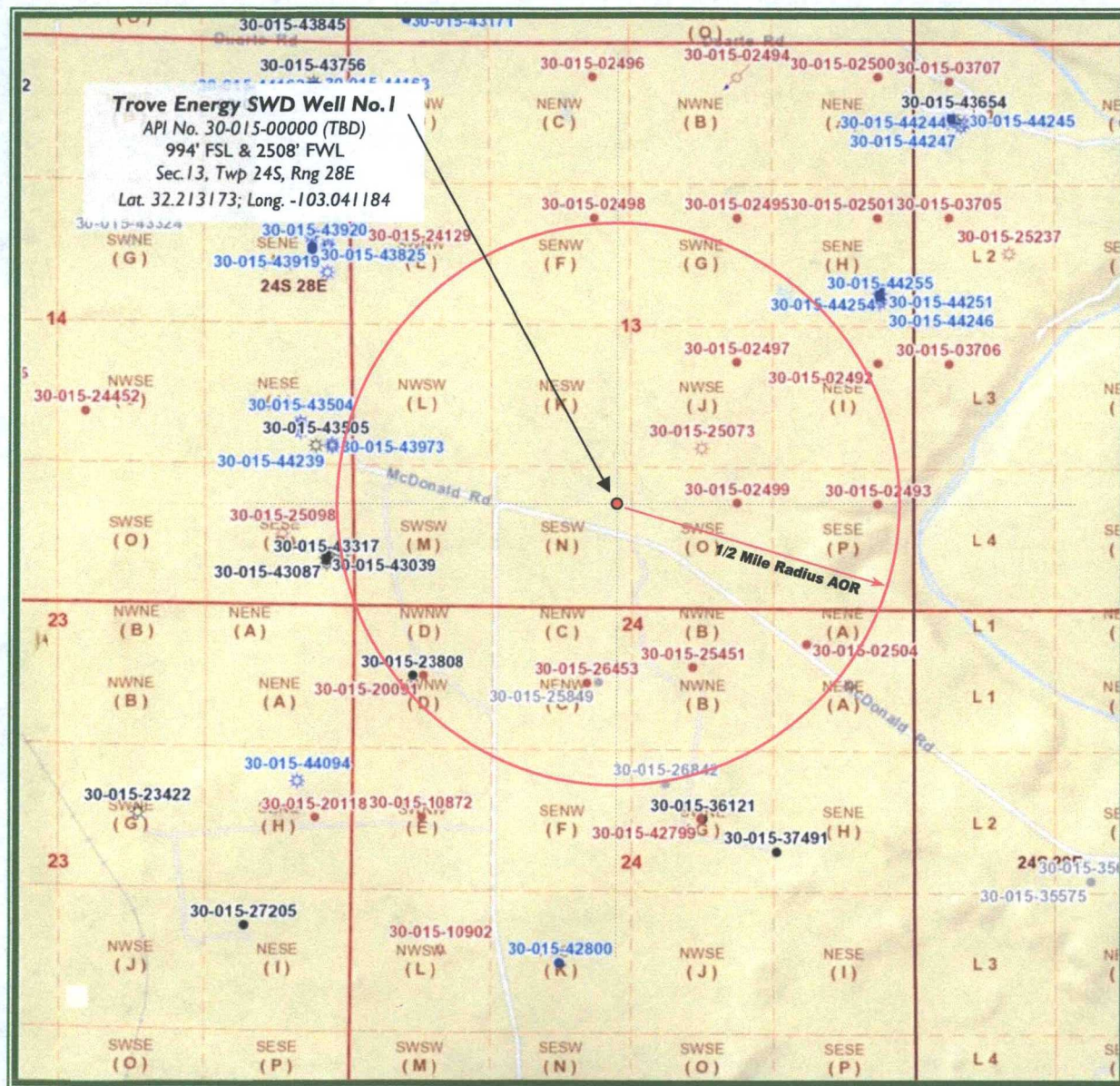
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

(Attachment to NMOCD Form C-108 - Item V)



Trove Energy SWD Well No.1 - Area of Review / Overview Map

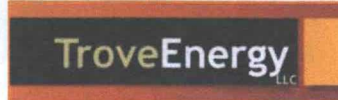
(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



2.0 miles SE of Malaga, NM



Eddy County, New Mexico





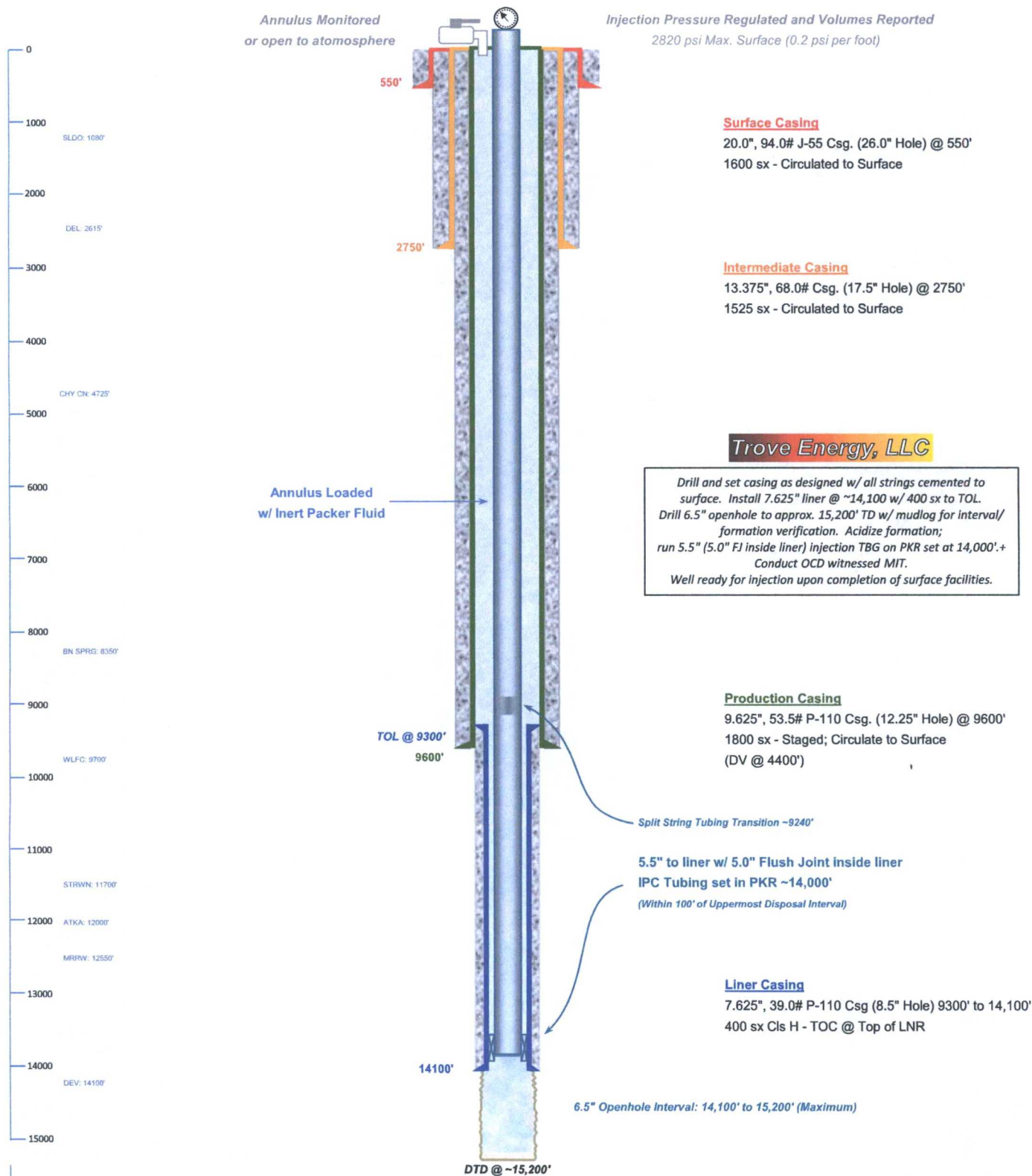
WELL SCHEMATIC - PROPOSED Trove Energy SWD Well No.1

API 30-015-xxxxx

994' FSL & 2508' FWL, SEC. 13-T24S-R28E
EDDY COUNTY, NEW MEXICO

SWD; Devonian (96101)

Spud Date: 10/01/2017
SWD Config Dt: 10/25/2017



Drawn by: Ben Stone, Rvsd 8/01/2017

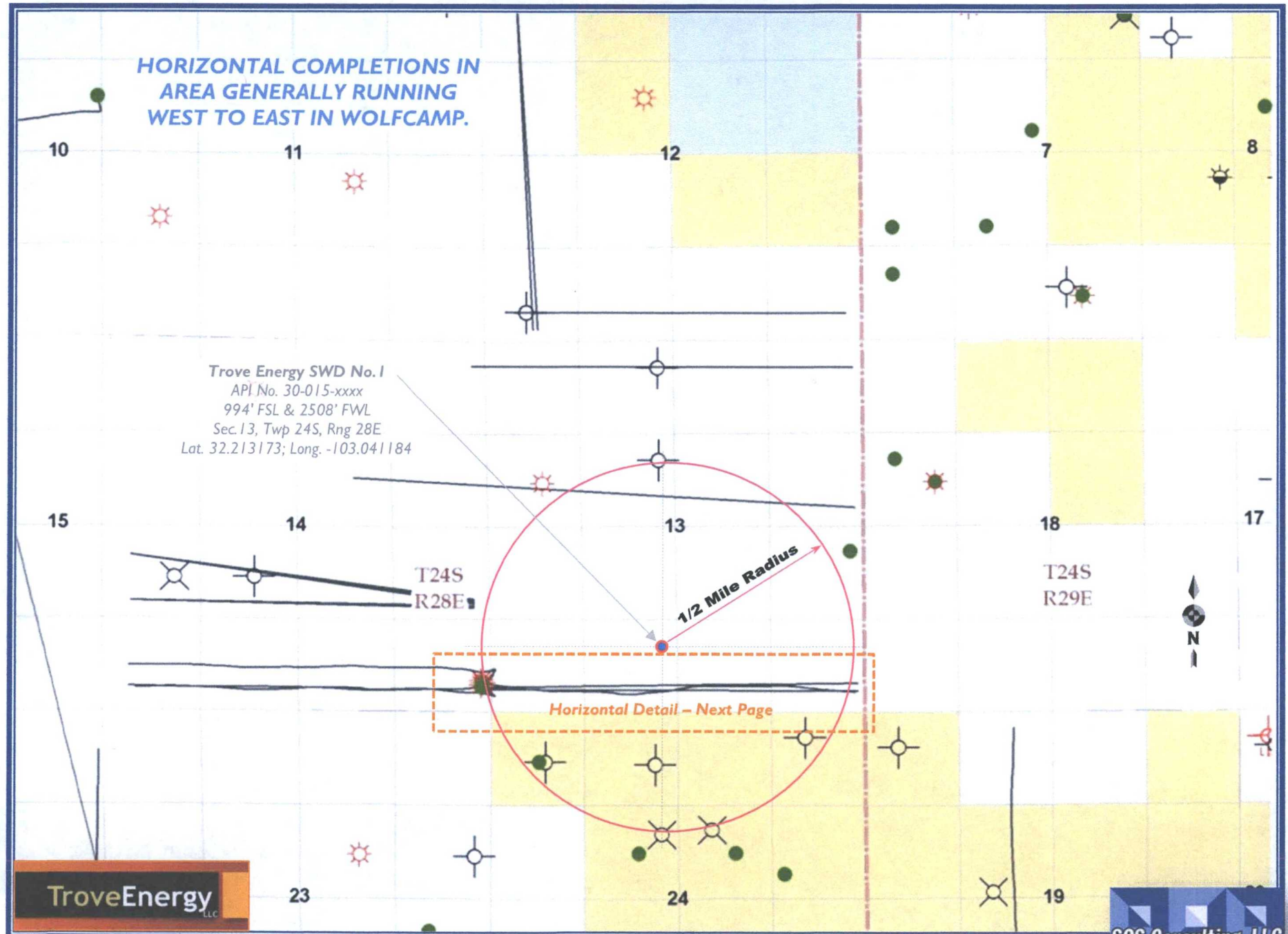
C-108 - Item VI

Area of Review Well Data

**THERE ARE NO WELLS WHICH PENETRATE THE
PROPOSED DEVONIAN FORMATION IN THE
ONE-HALF MILE AREA of REVIEW**

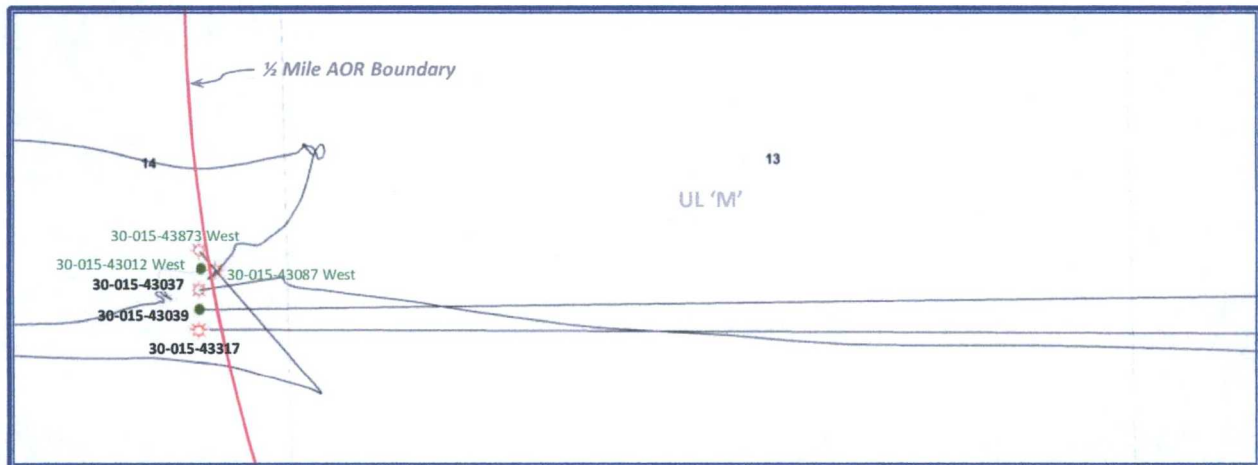
Trove Energy SWD No.1 – AOR / Horizontal Completion Transverse Areas

(Attachment to NMOCD Form C-108 - Item V)



Trove Energy SWD No.1 – AOR / Horizontal Completions

(Attachment to NMOCD Form C-108 - Item V)



~ Please refer to other AOR Map views ~

Matador Production Company

30-015-43037 – Janie Conner 13 24S 28E RB No.224H
Horizontal Completion: Wolfcamp @ 10,589' +/-
Nominal distance to proposed vertical SWD: 656 feet

30-015-43039 – Janie Conner 13 24S 28E RB No.124H
Horizontal Completion: Bone Spring @ 8449' +/-
Nominal distance to proposed vertical SWD: 558 feet

30-015-43317 - Janie Conner 13 24S 28E RB No.204H
Horizontal Completion: Wolfcamp @ 9770' +/-
Nominal distance to proposed vertical SWD: 616 feet

C-108 ITEM X

LOGS and AVAILABLE TEST DATA

**A Standard Suite of Logs will be run after
drilling the well and submitted to the Division.**

C-108 ITEM VII – PROPOSED OPERATION

Trove Energy SWD No.1

Commercial SWD Facility

Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take approximately 6-8 weeks. Facility construction including installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval but at a different location from the well. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment.

Configure for Salt Water Disposal

Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD and BLM test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity.

Operational Summary

The SWD facility will not be fenced so that trucks may access for load disposal 24/7.

The well and injection equipment will be a closed system and equipped with pressure limiting devices and volume meters. The annulus, loaded with an inert, anti-corrosion packer fluid, will be monitored for pressure.

The tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation.

Anticipated daily maximum volume is 25,000 bpd and an average of 15,000 bpd at a maximum surface injection pressure of 2820 psi (.2 psi/ft gradient – maximum pressure will be adjusted if the top of interval is modified after well logs are run).

Potential releases will be contained and cleaned up immediately. The operator shall repair or otherwise correct the situation within 48 hours before resuming operations. OCD will be notified within 24 hours of any release greater than 5 bbls. If required, remediation will start as soon as practicable. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC; as necessary and appropriate and OCD form C-141 will be submitted promptly.

C-108 ITEM VII – PRODUCED WATER ANALYSES

Item VII.4 – Water Analysis of Source Zone Water

Delaware
Bone Spring
Wolfcamp
Morrow

Item VII.5 – Water Analysis of Disposal Zone Water

Devonian

Water Analyses follow this page.

C-108 Item VII.5 - Produced Water Data

Trove Energy SWD Well No.1

SOURCE ZONE

DELAWARE

API No 3002508367

Well Name BELL LAKE UNIT 007

Location ULSTR 01 24 S 33 E
660 N 660 E

Lat / Long 32.25143 -103.51924

County Lea

Operator (when sampled)

Field SWD

Unit 1

Sample Date

Analysis Date

Sample Source UNKNOWN

Depth (if known)

Water Type

ph

alkalinity_as_caco3_mgL

ph_temp_F

hardness_as_caco3_mgL

specificgravity

hardness_mgL

specificgravity_temp_F

resistivity_ohm_cm

tds_mgL

87686

resistivity_ohm_cm_temp_

tds_mgL_180C

conductivity

chloride_mgL

53920

conductivity_temp_F

sodium_mgL

carbonate_mgL

calcium_mgL

bicarbonate_mgL

391

iron_mgL

sulfate_mgL

749

barium_mgL

hydroxide_mgL

magnesium_mgL

h2s_mgL

potassium_mgL

co2_mgL

strontium_mgL

o2_mgL

manganese_mgL

anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data

Trove Energy SWD Well No.1

SOURCE ZONE

BONE SPRING

API No	3002502429	Lab ID	
Well Name	LEA UNIT 005	Sample ID	4916
		Sample No	
Location	ULSTR 12 20 S 34 E	Lat / Long	32.58504 -103.51106
	1980 S 1980 E	County	Lea
Operator (when sampled)			
	Field LEA	Unit	J
Sample Date		Analysis Date	
	Sample Source DST	Depth (if known)	
	Water Type		
ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	202606	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	118100	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	5196
iron_mgL		sulfate_mgL	992
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data

Trove Energy SWD Well No.1

SOURCE ZONE

WOLFCAMP

API No 3001520138

Well Name MAHUN STATE

001

Location ULSTR 16 22 S 22 E
1800 N 1980 W

Lat / Long 32.39340

Lab ID

Sample ID

5688

Sample No

-104.70979

County Eddy

Operator (when sampled)

Field

ROCKY ARROYO

Unit F

Sample Date

5/17/1968

Analysis Date

Sample Source DST

Depth (if known)

Water Type

ph 8.6

alkalinity_as_caco3_mgL

ph_temp_F

hardness_as_caco3_mgL

specificgravity

hardness_mgL

specificgravity_temp_F

resistivity_ohm_cm

tds_mgL

35495

resistivity_ohm_cm_temp_

tds_mgL_180C

conductivity

chloride_mgL

19000

conductivity_temp_F

sodium_mgL

carbonate_mgL

calcium_mgL

bicarbonate_mgL

830

iron_mgL

sulfate_mgL

2500

barium_mgL

hydroxide_mgL

magnesium_mgL

h2s_mgL

potassium_mgL

co2_mgL

strontium_mgL

o2_mgL

manganese_mgL

anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data

Trove Energy SWD Well No.1

SOURCE ZONE

MORROW

API No 3002520756
Well Name CUSTER MOUNTAIN UNIT 001

Lab ID
Sample ID 2434
Sample No

Location ULSTR 09 24 S 35 E Lat / Long 32.22999 -103.37431
1980 S 1980 W County Lea

Operator (when sampled)

Field CINTA ROJA

Unit K

Sample Date

Analysis Date

Sample Source DST

Depth (if known)

Water Typ

ph	alkalinity_as_caco3_mgL
ph_temp_F	hardness_as_caco3_mgL
specificgravity	hardness_mgL
specificgravity_temp_F	resistivity_ohm_cm
tds_mgL 282741	resistivity_ohm_cm_temp_
tds_mgL_180C	conductivity
chloride_mgL 176800	conductivity_temp_F
sodium_mgL	carbonate_mgL
calcium_mgL	bicarbonate_mgL 161
iron_mgL	sulfate_mgL 650
barium_mgL	hydroxide_mgL
magnesium_mgL	h2s_mgL
potassium_mgL	co2_mgL
strontium_mgL	o2_mgL
manganese_mgL	anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data

Trove Energy SWD Well No.1

DISPOSAL ZONE

DEVONIAN

API No. 3002508483

Well Name BELL LAKE UNIT 006

Location ULSTR 06 23 S 34 E
660 S 1980 E

Lat / Long 32.32821 -103.50663

County Lea

Lab ID

Sample ID 5733

Sample No

Operator (when sampled)

Field BELL LAKE NORTH

Unit O

Sample Date

Analysis Date

Sample Source HEATER/TREATER

Depth (if known)

Water Type

ph 7

alkalinity_as_caco3_mgL

ph_temp_F

hardness_as_caco3_mgL

specificgravity

hardness_mgL

specificgravity_temp_F

resistivity_ohm_cm

tds_mgL 71078

resistivity_ohm_cm_temp_

tds_mgL_180C

conductivity

chloride_mgL 42200

conductivity_temp_F

sodium_mgL

carbonate_mgL

calcium_mgL

bicarbonate_mgL 500

iron_mgL

sulfate_mgL 1000

barium_mgL

hydroxide_mgL

magnesium_mgL

h2s_mgL

potassium_mgL

co2_mgL

strontium_mgL

o2_mgL

manganese_mgL

anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data

Trove Energy SWD Well No.1

DISPOSAL ZONE

DEVONIAN

API No.	3002521082	Lab ID	
Well Name	ANTELOPE RIDGE UNIT 003	Sample ID	5720
Location	ULSTR 34 23 S 34 E 1980 S 1650 W	Sample No	
Lat / Long	32.25922 -103.46068	County	Lea
Operator (when sampled)			
Field	ANTELOPE RIDGE	Unit	K
Sample Date	11/14/1967	Analysis Date	
Sample Source	UNKNOWN	Depth (if known)	
Water Type			
ph	6.9	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	80187	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	47900	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	476
iron_mgL		sulfate_mgL	900
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 – Item VIII

Geologic Information

The Devonian and Silurian consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are believed present within the subject formations in the area. Depth control data was inferred from deep wells to the south and east. If the base of Devonian and top of Silurian rocks come in as expected the well will only be drilled deep enough for adequate logging rathole.

At a proposed depth of 15,300' BGL (Below Ground Level) the well will TD approximately 1,200' below the estimated top of the Devonian. Mud logging through the interval will ensure the target interval remains in Devonian and Silurian. Once Devonian is determined, the casing shoe depth will be set at an approximate maximum upper depth of 14,100' BGL. Injection will occur through the resulting openhole interval. Should mud or other logs indicate depth adjustment is required to exploit the desired formation as described; sundries with appropriate data will be filed with the OCD and BLM.

The Devonian is overlain by the Woodford Shale and Mississippian Lime and underlain by the Middle and Lower Ordovician; Simpson, McKee and Ellenburger.

Fresh water in the area is generally available from valley and basin fill of the Carlsbad-Pecos segment of the lower Pecos Valley complex of Quaternary alluvial sand and gravel deposits. State Engineer's records show water wells in the area with a depth to groundwater of 12 to 60 feet with an average depth to groundwater of 35 feet.

There are 12 water wells located within one mile of the proposed SWD; 2 have been sampled and analyses will be forwarded upon receipt.

C-108 ITEM XI – WATER WELLS IN AOR

Red strikeout – not within one mile...



New Mexico Office of the State Engineer Active & Inactive Points of Diversion (with Ownership Information)

(acre ft per annum)										(R=POD has been replaced and no longer serves this file, C=the file is closed)										(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)									
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q				X	Y														
										6416	4	Sec	Tws			Rng													
C 00329	C	DOM	3	DEKALB AGRI. ASSOC. INC.	ED	C 00329			Shallow	2	1	2	13	24S	28E	590682	3565677*												
C 00353	C	CLS	0	DEKALB AGRICULTURAL ASSOC.	ED	C 00353	C					3	4	13	24S	28E	590603	3564367*											
C 00354	C	CLS	0	DEKALB ALGRICULTURAL ASSN. INC	ED	C 00354	C					4	4	13	24S	28E	591005	3564367*											
C 00464		IRR	314.245	JACKIE DALE MCDONALD	ED	C 00464			Shallow	2	2	1	13	24S	28E	590277	3565674*												
C 00464 ENL		IRR	0	PREWITT MRS J A	ED	C 00464			Shallow	2	2	1	13	24S	28E	590277	3565674*												
C 00513	C	IRR	1422	PARDUE LIMITED COMPANY	ED	C 00513 S			Shallow	1	3	3	16	24S	28E	584802	3564432												
C 00684		IRR	0	EASTLAND OIL CO.	ED	C 00684			Shallow	2	1	2	13	24S	28E	590682	3565677*												
C 00700	C	DOL	0	S.P. PARDUE & SONS	ED	C 00700			Shallow	2	3	3	16	24S	28E	594803	3564232*												
C 00738		IRR	343.5	W.J. BURKHAM	ED	C 00738			Shallow	3	1	1	13	24S	28E	589673	3565472*												
C 00750		IRR	74.7	BETH ANN BOTROS	ED	C 00750			Shallow	1	2	4	13	24S	28E	590898	3564871*												
C 00768	C	IRR	0	MARCELO P. NAVARRETTE	ED	C 00768						2	3	13	24S	28E	590194	3564770*											
C 00903	C	DOL	3	HENRY MCDONALD	ED	C 00903			Shallow	2	1	13	24S	28E		590178	3565575*												
C 01137		EXP	0	MORRIS R. ANTWEIL	LE	C 01137						4	1	4	13	24S	28E	590696	3564670*										
C 01154	C	PRO	0	MORRIS R. ANTWEIL	ED	C 01154			Shallow	2	1	2	13	24S	28E	590682	3565677*												
C 01200	C	IRR	0	HAROLD WALKER	ED	C 01200				4	2	10	24S	28E		590100	3565174*												
C 02057	C	PRO	0	POGO PRODUCING CO.	ED	C 02057			Shallow	1	4	14	24S	28E		588956	3564774*												
C 02256	C	DOM	3	ROBERT HIGGINS	ED	C 02256						3	2	3	13	24S	28E	590093	3564669*										
C 02700	C	DOL	0	EFREN B COLLINS	ED	C 02700				2	2	16	24S	28E		596203	3566676*												
C 02800	C	STK	0	ZULEMA COLLINS	ED	C 02800			Shallow	2	2	16	24S	28E		596203	3566676*												
C 03665	C	PRO	0	LEGEND NATURAL GAS	ED	C 00513 S			Shallow	1	3	3	16	24S	28E	584802	3564432												
C 03824	GUB-EXP	0	EFREN B COLLINS	ED	C 03824-POD1				Shallow	4	1	2	16	24S	28E	595770	3565579*												
C 03868	GUB-PRO	0	GONGHO OIL & GAS	ED	C 03824-POD1				Shallow	4	1	2	16	24S	28E	595770	3565579*												
C 03864	GUB-PRO	0	GONGHO OIL & GAS	ED	C 03824-POD1				Shallow	4	1	2	16	24S	28E	595770	3565579*												
C 03868	GUB-PRO	0	GONGHO OIL & GAS	ED	C 03824-POD1				Shallow	4	1	2	16	24S	28E	595770	3565579*												
C 03870	GUB-EXP	0	EFREN COLLINS	ED	C 03870-POD1		NON			3	1	2	16	24S	28E	595804	3565504*												

Record Count: 25

PLSS Search:

Section(s): 13, 14, 16, 19, Township: 24S Range: 28E
23, 24

Sorted by: File Number

Note: 16 PODs identified above resulted in 11 well spots based on OSE coordinates in GIS mapping.

(See aerial map following this page.)

2 wells sampled – Analyses will be forwarded upon receipt.

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/3/17 2:43 PM

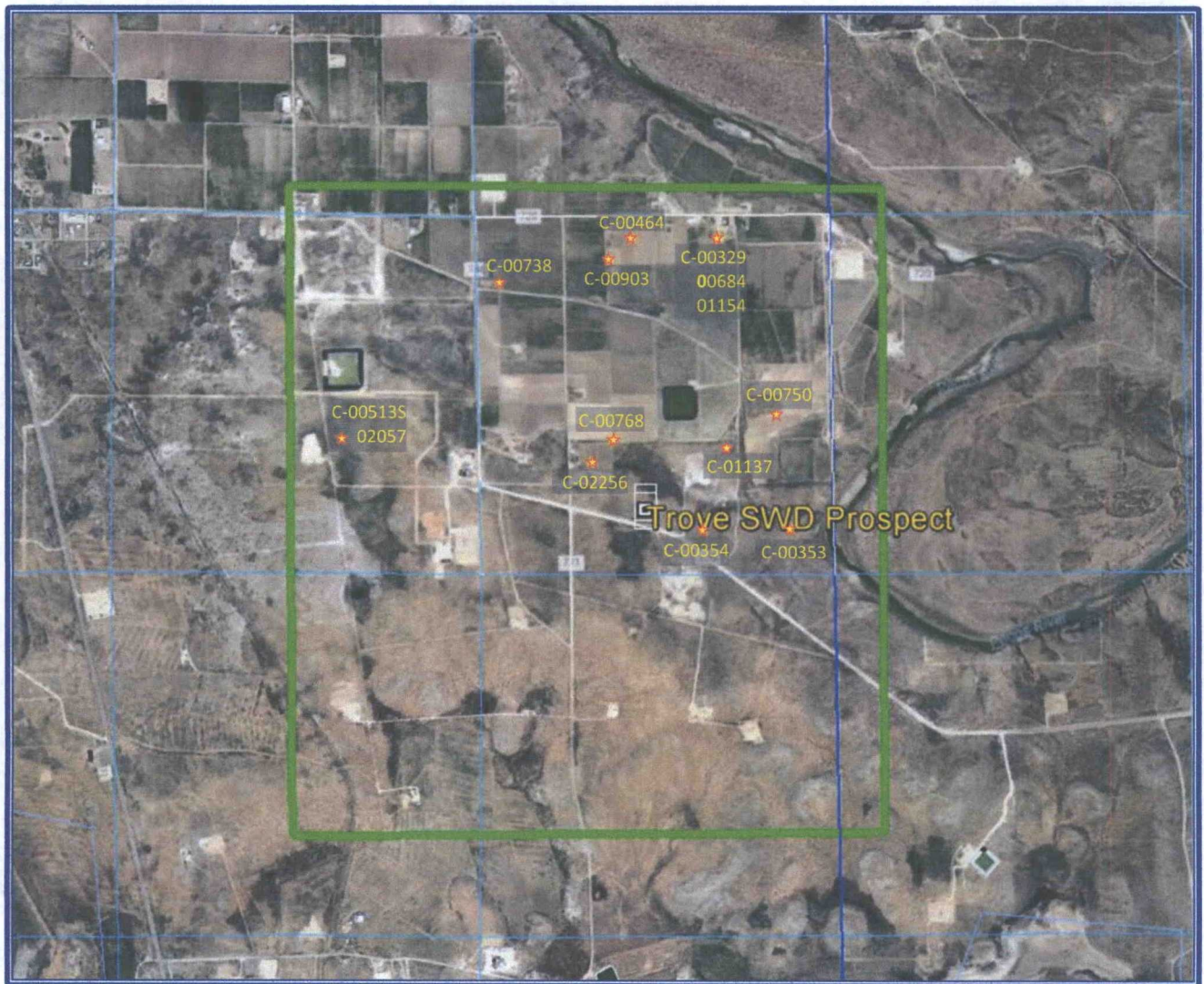
Page 2 of 2

ACTIVE & INACTIVE POINTS OF DIVERSION

C-108 Item XI

Water Wells Within One Mile

*11 Water Wells are Shown to be Within One Mile of the Proposed SWD
(See 2-Mile AOR Map for Radius Presentation)*



Samples were obtained on 2 wells. The analyses will be forwarded when received.

C-108 ITEM XI – WATER WELLS IN AOR

Depth to Ground Water



New Mexico Office of the State Engineer Water Column/Average Depth to Water















(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

	POD											Depth	Depth	Water
	Sub-	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Well	Water	Column
POD Number	Code													
C 00329	C	ED		2	1	2	13	24S	28E	590682	3565677* 	95	30	65
C 00353	C	C	ED		3	4	13	24S	28E	590603	3564367* 	2726		
C 00354	C	C	ED		4	4	13	24S	28E	591005	3564367* 	2739		
C 00464			ED	2	2	1	13	24S	28E	590277	3565674* 	111	28	83
C 00513 S	C	ED		1	3	3	16	24S	28E	584802	3564432 	161	42	119
C 00684			ED	2	1	2	13	24S	28E	590682	3565677* 	95	40	55
C 00709	C	ED		3	3	3	16	24S	28E	584802	3564232* 			
C 00738			ED	3	1	1	13	24S	28E	589673	3565472* 	125	12	113
C 00750			ED	1	2	4	13	24S	28E	590898	3564871* 	110		
C 00903	C	ED		2	1	13	24S	28E	590178	3565575* 	57	30	27	
C 01154	C	ED		2	1	2	13	24S	28E	590682	3565677* 	95	50	45
C 02057	C	ED		1	4	14	24S	28E	588956	3564774* 	126	52	74	
C 02836	C	ED		2	2	2	16	24S	28E	586203	3565676* 		15	
C 03824 POD1	CUB	ED		4	1	2	16	24S	28E	585770	3565578 	290	60	230

Average Depth to Water: **35 feet**

Minimum Depth: **12 feet**

Maximum Depth: **60 feet**

Record Count: 14

PLSS Search:

Section(s): 13, 14, 16, 19, 23, 24 Township: 24S Range: 28E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

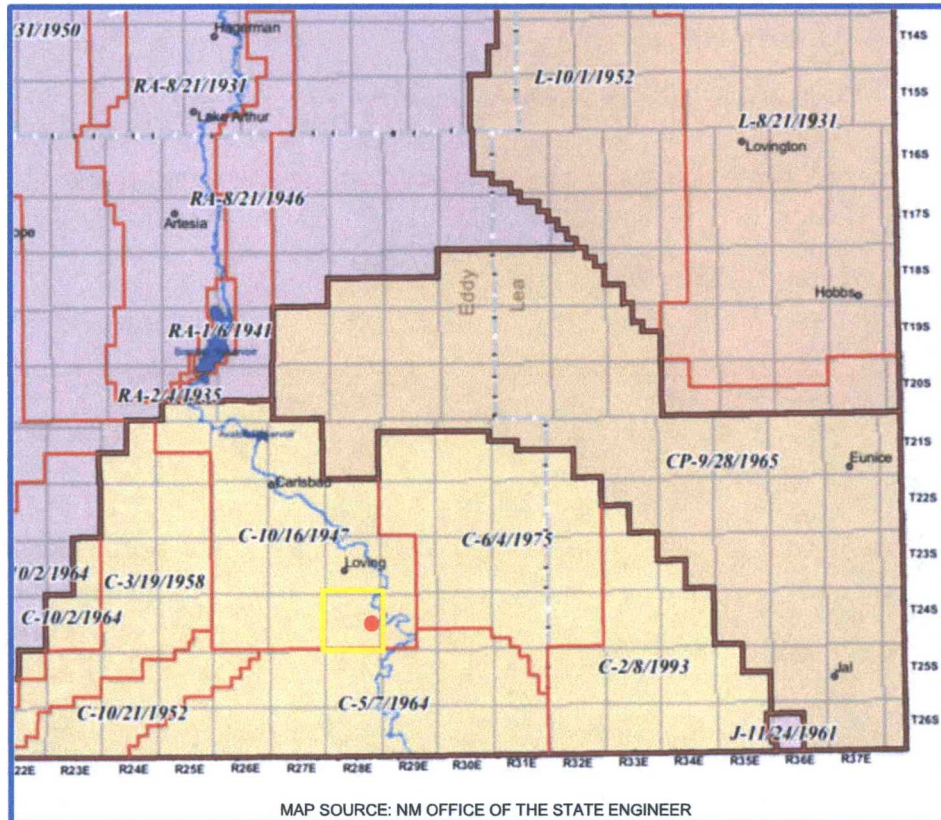
8/7/17 8:46 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Carlsbad Basin.

Fresh water in the area is generally available from valley and basin fill of the Carlsbad-Pecos segment of the lower Pecos Valley complex of Quaternary alluvial sand and gravel deposits. State Engineer's records show water wells in the area with a depth to groundwater of 12 to 60 feet with an average depth to groundwater of 35 feet.

There are 12 water wells located within one mile of the proposed SWD; 2 have been sampled and analyses will be forwarded upon receipt.

C-108 ITEM XII – GEOLOGIC AFFIRMATION

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.



Ben Stone, Partner
SOS Consulting, LLC

Project: Trove Energy, LLC
 Trove Energy SWD No.1
 Reviewed 8/01/2017

C-108 ITEM XIII – PROOF OF NOTIFICATION

IDENTIFICATION AND NOTIFICATION OF INTERESTED PARTIES

Exhibits for Section

Leasehold Plat

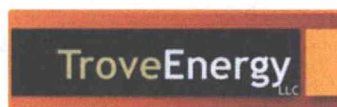
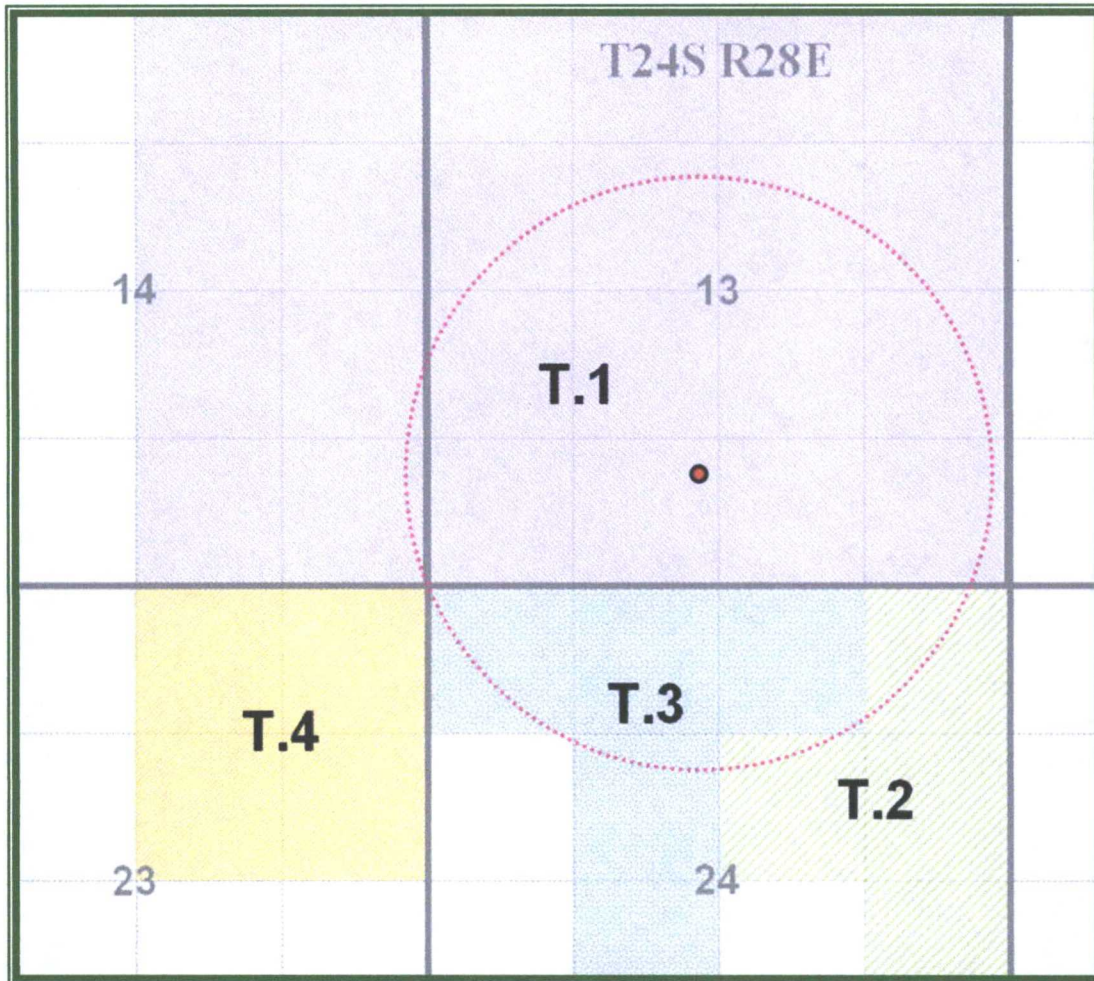
List of Interested Parties

Notification Letter to Interested Parties

Proof of Certified Mailing

Published Legal Notice

Trove Energy SWD No.1 - Leasehold Plat
(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



LEGEND

- T.1 – Matador Production Company
- T.2 – BLM NMNM-110829; ConocoPhillips
- T.3 – BLM NMNM-027919; ConocoPhillips
- T.4 – Marathon Oil Company

**C-108 ITEM XIII – PROOF OF NOTIFICATION
INTERESTED PARTIES LIST**

SURFACE OWNER

- 6 **BARTON BROTHERS, ET AL** (Notified via USPS Certified Mail)
1919 N. Turner St.
Hobbs, NM 88240
Certified: 7015 3010 0001 3789 9514

OFFSET MINERALS LESSEES and OPERATORS (All Notified via USPS Certified Mail)

T.1 on Leasehold Plat

Lessee/Operator

- 1 **MATADOR PRODUCTION COMPANY**
One Lincoln Center
5400 LBJ Freeway, Ste. 1500
Dallas, TX 75240
Certified: 7015 3010 0001 3789 9507

T.2 & T.3 on Leasehold Plat – BLM Lease NMNM-110829 & NMNM-027919

Minerals

- 2 **BUREAU OF LAND MANAGEMENT**
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Certified: 7015 3010 0001 3789 9477

Lessee

- 3 **CONOCOPHILLIPS**
P.O. Box 7500
Bartlesville, OK 77005-7500
Certified: 7015 3010 0001 3789 9491

Operators

- 4 **DINERO OPERATING COMPANY**
P.O. Box 10505
Midland, TX 79702
Certified: 7015 3010 0001 3789 9484

- 5 **MARATHON OIL COMPANY**
P.O. Box 22164
Tulsa, OK 74121-2164
Certified: 7015 3010 0001 3789 9521

T.4 on Leasehold Plat

Operator

MARATHON OIL COMPANY
P.O. Box 22164
Tulsa, OK 74121-2164

**C-108 ITEM XIII – PROOF OF NOTIFICATION
INTERESTED PARTIES LIST (cont.)**

REGULATORY

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed original and copy)
1220 S. St. Francis Dr.
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
811 S. First St.
Artesia, NM 88210



August 4, 2017

NOTIFICATION TO INTERESTED PARTIES
via U.S. Certified Mail – Return Receipt Requested

To Whom It May Concern:

Trove Energy, LLC, Hobbs, New Mexico, has made application to the New Mexico Oil Conservation Division to drill and complete for salt water disposal the Trove Energy SWD Well No.1. The proposed commercial operation will be for produced water disposal from area operators. As indicated in the notice below, the well is located in Section 13, Township 24 South, Range 28 East in Eddy County, New Mexico.

The published notice states that the interval will be from 14,100 feet to 15,200 feet.

Following is the notice published in the Artesia Daily Press, New Mexico on or about August 3, 2017.

LEGAL NOTICE

Trove Energy, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Trove Energy SWD No.1, is located 994' FSL and 2508' FWL, Section 13, Township 24 South, Range 28 East, Eddy County, New Mexico; approximately 2.0 miles southeast of Malaga, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 14,100' to 15,200' at a maximum surface pressure of 2820 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

You have been identified as a party who may be interested as an offset lessee or operator.

You are entitled to a full copy of the application. A full copy in PDF format on a mini-CD will be arriving within a few days of this notice. If you do not receive it, please call or email SOS Consulting, LLC at 903-488-9850, info@sosconsulting.us, and a copy will be expedited to you and may also be sent via email if preferred.

Thank you for your attention in this matter.

Best regards,

A handwritten signature in black ink, appearing to read "Ben Stone", written in a cursive style.

Ben Stone, SOS Consulting, LLC
Agent for Trove Energy, LLC

Cc: Application File

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

7015 3010 0001 3789 9514

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee \$ 3.35

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$ 2.75

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage \$ 6.59

Total Postage and Fees \$ 6.59

Sent To
 Street BARTON BROTHERS, ET AL
 City, State 1919 N. Turner St.
Hobbs, NM 88240

PS Form 3849, October 2010

7015 3010 0001 3789 9507

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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OFFICIAL USE

Certified Mail Fee \$ 3.35

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$ 2.75

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage \$ 6.59

Total Postage and Fees \$ 6.59

Sent To
 Street MATADOR PRODUCTION COMPANY
 City, State One Lincoln Center
5400 LBJ Freeway, Ste. 1500
Dallas, TX 75240

PS Form 3849, October 2010

7015 3010 0001 3789 9477

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee \$ 3.25

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$ 2.75

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage \$ 6.59

Total Postage and Fees \$ 6.59

Sent To
 Street BUREAU OF LAND MANAGEMENT
 City, State Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220

PS Form 3849, October 2010

7015 3010 0001 3789 9497

U.S. Postal Service™
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Certified Mail Fee \$ 3.25

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$ 2.75

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage \$ 6.59

Total Postage and Fees \$ 6.59

Sent To
 Street CONOCOPHILLIPS
 City, State P.O. Box 7500
Bartlesville, OK 77005-7500

PS Form 3849, October 2010

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts - cont.)

7015 3010 0001 3789 9484

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage \$ 6.59

Total Postage and Fees \$ 6.59

Sent To _____

Street and _____

City, State _____

PS Form _____

DINERO OPERATING COMPANY
P.O. Box 10505
Midland, TX 79702

Postmark Here 275 AUG 05 2017

7015 3010 0001 3789 9521

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee \$ 3.35

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage \$ 6.59

Total Postage and Fees \$ 6.59

Sent To _____

Street and _____

City, State _____

PS Form _____

MARATHON OIL COMPANY
P.O. Box 22164
Tulsa, OK 74121-2164

Postmark Here 275 AUG 05 2017

C-108 - Item XIV

Proof of Notice – Legal Notice Newspaper of General Circulation

Legal Notice

Trove Energy, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Trove Energy SWD No.1, is located 994' FSL and 2508' FWL, Section 13, Township 24 South, Range 28 East, Eddy County, New Mexico; approximately 2.0 miles southeast of Malaga, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 14,100' to 15,200' at a maximum surface pressure of 2820 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., Aug. 3, 2017 Legal No. 24379.

The above is the "Proof Copy" sent from the Artesia Daily Press.
The affidavit of publication will be forwarded as soon as it is received.

Affidavit of Publication

No. 24379

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that she is the

Publisher

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/day on the same

day as follows:

First Publication August 3, 2017

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Seventh Publication

Subscribed and sworn before me this

3rd day of August 2017



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires:

5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

Trove Energy, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Trove Energy SWD No.1, is located 994' FSL and 2508' FWL, Section 13, Township 24 South, Range 28 East, Eddy County, New Mexico; approximately 2.0 miles southeast of Malaga, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 14,100' to 15,200' at a maximum surface pressure of 2826 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505) 476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903) 488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., Aug. 3, 2017 Legal No. 24379.

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
Print your name and address on the reverse so that we can return the card to you.
Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

BARTON BROTHERS, ET AL
1919 N. Turner St.
Hobbs, NM 88240
Trove

9590 9402 1356 5285 2663 57

Article Number (Transfer from service label)
7015 3010 0001 3789 9514

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X **Branda Stewart** ☐ Agent ☐ Addressee

B. Received by (Printed Name)
Branda Stewart C. Date of Delivery
8-8-17

D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
☐ Certified Mail® ☐ Registered Mail Restricted Delivery
☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Mail Restricted Delivery

Domestic Return Receipt

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Article Addressed to:

BUREAU OF LAND MANAGEMENT
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Trove

9590 9403 0195 5120 3852 91

Article Number (Transfer from service label)
7015 3010 0001 3789 9477

PS Form 3811, April 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X **[Signature]** ☐ Agent ☐ Addressee

B. Received by (Printed Name)
[Signature] C. Date of Delivery
8/10/17

D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

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☐ Adult Signature ☐ Priority Mail Express®
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☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Mail Restricted Delivery

Domestic Return Receipt

Other Addressees for Trove C-108

Tracking Number: 7015301000013789944

Product & Tracking Information

9590 9402 1356 5285 2663 57

7015 3010 0001 3789 9507

PS Form 3811, July 2015 PSN 7530-02-000-9053

Delivered

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
Print your name and address on the reverse so that we can return the card to you.
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Article Addressed to:

CONOCOPHILLIPS
P.O. Box 7500
Bartlesville, OK 77005-7500
Trove

9590 9402 1356 5285 2664 18

Article Number (Transfer from service label)
7015 3010 0001 3789 9491

PS Form 3811, July 2015 PSN 7530-02-000-9053

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X **[Signature]** ☐ Agent ☐ Addressee

B. Received by (Printed Name)
[Signature] C. Date of Delivery
8/10/17

D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
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☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Mail Restricted Delivery

Domestic Return Receipt

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Complete items 1, 2, and 3.
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Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

MARATHON OIL COMPANY
P.O. Box 22164
Tulsa, OK 74121-2164
Trove

9590 9403 0195 5120 3855 38

Article Number (Transfer from service label)
7015 3010 0001 3789 9521

PS Form 3811, April 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X **[Signature]** ☐ Agent ☐ Addressee

B. Received by (Printed Name)
[Signature] C. Date of Delivery
8/10/17

D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
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☐ Certified Mail® ☐ Registered Mail Restricted Delivery
☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Mail Restricted Delivery

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Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

MATADOR PRODUCTION COMPANY
One Lincoln Center
5400 LBJ Freeway, Ste. 1500
Dallas, TX 75240
Trove

9590 9402 1356 5285 2663 64

7015 3010 0001 3789 9507

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X **[Signature]** ☐ Agent ☐ Addressee

B. Received by (Printed Name)
[Signature] C. Date of Delivery
8/10/17

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☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Mail Restricted Delivery

Domestic Return Receipt

Trove Energy



GE Power & Water
Water & Process Technologies

Customer Analytical Services Laboratory

9669 Grogans Mill Road
The Woodlands, TX 77380
Telephone: 877.251.3479
Fax: 281.363.7724

WATER ANALYSIS REPORT

WESTERN ENVIRONMENTAL MANAGEMENT, CARLSBAD, NM
WESTERN ENVIRONMENTAL MANAGEMENT, 3106 EAST GREENE
STREET
CARLSBAD, NM 88221
United States
Customer #: 4000101850
Ship To #: 4000101850
Sold To #: 1000090673

Project ID: WDLW170815024

Sales Rep: Laird, Kelly

Receive Date: 15-Aug-2017

Report Date: 24-Aug-2017

Report Authorized By:

Susan Overbeck

24-Aug-2017

The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from the Customer Analytical Services Laboratory



GE Power & Water
Water & Process Technologies

Customer: WESTERN ENVIRONMENTAL

Project ID: WDLW170815024

Submitted Samples: 2

SAMPLE INFORMATION

Sample Name	Grid	Bottles	Asset	Sampling Point	Sampled Date	Lab Sample ID
#C02256		3		GGENR	08-Aug-2017	WDLW170815067
#C 00329/#C00684/ #C01154		3		GGENR	08-Aug-2017	WDLW170815068

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GE Power & Water
Water & Process Technologies

Customer: WESTERN ENVIRONMENTAL

Project ID: WDLW170815024

Sample Name: #C02256

Lab Sample ID: WDLW170815067

Sampled Date: 8-Aug-2017

Parameter Name	Result	Units	Reporting Limit
pH Analysis			
pH	7.7	-	1.0
Automated Colorimetric Analysis			
Chloride, as Cl	466	ppm	0.5
ICP Analysis			
Calcium Hardness, Total, as CaCO ₃	969	ppm	0.5
Hardness, Total, as CaCO ₃	1420	ppm	1
Magnesium Hardness, Total, as CaCO ₃	448	ppm	0.5
Total Dissolved Solids			
Solids, Total Dissolved, at 105°C	2620	ppm	20

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GE Power & Water
Water & Process Technologies

Customer: WESTERN ENVIRONMENTAL

Project ID: WDLW170815024

Sample Name: #C 00329/#C00684/# Lab Sample ID: WDLW170815068
Sampled Date: 8-Aug-2017

Parameter Name	Result	Units	Reporting Limit
pH Analysis			
pH	7.6	-	1.0
Automated Colorimetric Analysis			
Chloride, as Cl	470	ppm	0.5
ICP Analysis			
Calcium Hardness, Total, as CaCO ₃	963	ppm	0.5
Hardness, Total, as CaCO ₃	1420	ppm	1
Magnesium Hardness, Total, as CaCO ₃	451	ppm	0.5
Total Dissolved Solids			
Solids, Total Dissolved, at 105°C	2580	ppm	20

Notes:

- 1) mg/kg = ppm ; 0.1wt% = 1000ppm
- 2) Filtered results may be slightly higher than non-filtered results. This is due to method variances.

The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from the Customer Analytical Services Laboratory

Affidavit of Publication

No. 24379

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that she is the

Publisher

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/day on the same

day as follows:

First Publication August 3, 2017

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Seventh Publication

Subscribed and sworn before me this

3rd day of August 2017



OFFICIAL SEAL

Latisha Romine

NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

Trove Energy, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Trove Energy SWD No.1, is located 994' FSL and 2508' FWL, Section 13, Township 24 South, Range 28 East, Eddy County, New Mexico; approximately 2.0 miles southeast of Malaga, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 14,100' to 15,200' at a maximum surface pressure of 2820 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., Aug. 3, 2017 Legal No. 24379.

2017 AUG 15 A 10 06

RECEIVED OGD

8/10/2017



C-108 Review Checklist: Received _____ Add. Request: _____ Reply Date: _____ Suspended: _____ [Ver 15]

ORDER TYPE: WFX / PMX (SWD) Number: _____ Order Date: _____ Legacy Permits/Orders: _____

Well No. 15 Well Name(s): THOVE Energy SWD #1

API: 30-0 15-Pending Spud Date: TBD New or Old: _____ (UIC Class II Primacy 03/07/1982)

Footages 994 FSL 2508 FWL Lot _____ or Unit M Sec 13 Tsp 24S Rge 28E County Eddy

General Location: 2 miles SE / Malaga Pool: SWD Devonian-Silurian Pool No.: 97849

BLM 100K Map: CANUS 6A1 Operator: THOVE Energy, LLC OGRID: 326945 Contact: Ben Stone, Asmt

COMPLIANCE RULE 5.9: Total Wells: 0 Inactive: 0 Fincl Assur: OK Compl. Order? N/A IS 5.9 OK? X Date: 8-28-2017

WELL FILE REVIEWED ☐ Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed ☐ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: N/A

Planned Rehab Work to Well: _____

Well Construction Details		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___	Surface	26" / 20"	550	1600	Surface / Vis 421
Planned ___ or Existing ___	Interm/Prod	17 1/2" / 13 3/8"	2750	1525	Surface / Vis 421
Planned ___ or Existing ___	Interm/Prod	12 1/4" / 9 5/8"	9600	1800	Surface / Vis 421
Planned ___ or Existing ___	Prod (Liner)				
Planned ___ or Existing ___	Liner				
Planned ___ or Existing ___	OH / PERF	14100' / 1520'			

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.		DV	14100	Drilled TD <u>15200</u> PBTD _____
Confining Unit: Litho. Struc. Por.		m2	12550	NEW TD _____ NEW PBTD _____
Proposed Inj Interval TOP:		DV	14100	NEW Open Hole <input type="radio"/> or NEW Perfs <input type="radio"/>
Proposed Inj Interval BOTTOM:			15200	Tubing Size <u>4</u> in. Inter Coated? <input type="radio"/>
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth <u>1400</u> ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth <u>1400</u> (100-ft limit)
				Proposed Max. Surface Press. <u>2820</u> psi
				Admin. Inj. Press. <u>2820</u> (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-PMV Noticed? _____ BLM Sec Ord ☐ WIPP ☐ Noticed? _____ Salt/Salado T: 1050 B: 2640 NW: Cliff House fm _____

FRESH WATER: Aquifer Quaternary Max Depth 52' HYDRO AFFIRM STATEMENT By Qualified Person [Signature]

NMOSE Basin: CARLSBAD CAPITAN REEF thru adj NA No. Wells within 1-Mile Radius? 12 FW Analysis _____

Disposal Fluid: Formation Source(s) Bonespring, Lower Camp Morrow Analysis? _____ On Lease ☐ Operator Only ☐ or Commercial ☐

Disposal Int: Inject Rate (Avg/Max BWPD): 15K/25K Protectable Waters? N/A Source: _____ System: Closed or Open

HC Potential: Producing Interval? N/A Formerly Producing? _____ Method: Logs/DST/P&A/Other Reservoir 2-Mile Radius Pool Map ☐

AOR Wells: 1/2-M Radius Map? X Well List? X Total No. Wells Penetrating Interval: 0 Horizontals? _____

Penetrating Wells: No. Active Wells 0 Num Repairs? _____ on which well(s)? _____ Diagrams? _____

Penetrating Wells: No. P&A Wells 0 Num Repairs? _____ on which well(s)? _____ Diagrams? _____

NOTICE: Newspaper Date Aug 3 2017 Mineral Owner Ray G. Benton Surface Owner Benton Brothers LLC N. Date 8-8-2017

RULE 26.7(A): Identified Tracts? _____ Affected Persons: MARATHON, BENTON BROTHERS N. Date 8-09-2017

Order Conditions: Issues: _____

Add Order Cond: _____