### Initial

# Application

### Part I

Received 10/28/21

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

e-Permitting

C-108 Submittal

**Attachment Category** 

C-108 - Main Form

### **PLEASE NOTE**

The recent activation and requirement of C-108 submissions to OCD via its e-Permitting application contained in OCD Online has altered the usual order of categories and does not necessarily correspond to the classic Form C-108 ordering of topics.

Category Separation Pages are included however, the C-108 Item Pages may also be included as they have long been a part of the assembly process.

The resulting application package is a less than appealing compilation of required parts and pieces as shown below in the online structure.

	Description	Requ	ired to	No.
Tag	Attachment Type	Submit	Approve	Note
C-108	Main Form	True	True	
C-102	C-102	True	True	
Wellbore Diagram	Wellbore Diagram	True	True	
Proof of Notice	Proof of Notice	True	True	
AOR Analysis	Area Of Review Analysis	True	True	
Tabulation of Wells	Tabulation of wells in Area Of Review	True	True	* Including diagrams for penetrating wells
Fluid Analysis	Injectate and Formation Fluid Analysis	True	True	
Seismicity Analysis	Seismicity Analysis	True	True	* For high volume Devonian wells , especially near faults
Operational Details	Operational Details	True	True	

RECEIVED: 10/28/21 REVIEWER: APP NO: pBL2130232329

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

### NEW MEXICO OIL CONSERVATION DIVISION



- Geological & Eng 1220 South St. Francis Driv	
ADMINISTRATIVE AF	PPLICATION CHECKLIST
	ATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND ESSING AT THE DIVISION LEVEL IN SANTA FE
Applicant: Spur Energy Partners, LLC	OGRID Number: 328947
Vell Name: Muskegon 16 State SWD No.1	API: 30-015-27108
ool: SWD; Cisco	Pool Code: 96099
	ON REQUIRED TO PROCESS THE TYPE OF APPLICATION ATED BELOW
1) TYPE OF APPLICATION: Check those which ap A. Location – Spacing Unit – Simultaneous D  NSL NSP (PROJECT AREA)	
B. Check one only for [1] or [11]  [1] Commingling – Storage – Measureme  DHC CTB PLC P  [11] Injection – Disposal – Pressure Increa  WFX PMX SWD DIF	PC  OLS  OLM ase – Enhanced Oil Recovery PI  EOR  PPR
2) NOTIFICATION REQUIRED TO: Check those whi  A. Offset operators or lease holders  B. Royalty, overriding royalty owners, rev  C. Application requires published notice  D. Notification and/or concurrent appro  E. Surface owner	venue owners  voval by SLO  Notice Complete  Application Content Complete
	ion or publication is attached, and/or,
3) CERTIFICATION: I hereby certify that the informadministrative approval is accurate and compunderstand that no action will be taken on thin notifications are submitted to the Division.	
Note: Statement must be completed by an inc	dividual with managerial and/or supervisory capacity.
	10/27/2021
Ben Stone	Date
Print or Type Name	903-488-9850

Signature

Phone Number ben@sosconsulting.us e-mail Address



October 27, 2021

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

Attn: Ms. Adriene Sandoval, Director

Re: Application of Spur Energy Partners, LLC to reinstate and otherwise permit for salt water disposal its Muskegon 16 State Well No.1 SWD, located in Section 16, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico.

Dear Ms. Sandoval,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to permit for disposal the Muskegon 16 State No.1. The well was previously authorized by another operator for salt water disposal by division order SWD-624. The subject well is one of hundreds acquired in the last few years and the previous operator had let this well go inactive. By reinstating the SWD, the applicant's area production and leases will remain economic. The well will only take Spur's water from area operations.

Spur Energy Partners, LLC seeks to optimize efficiency, both economically and operationally, of all its operations 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 in the October 21, 2021, edition of the Artesia Daily Press and offset operators and other affected parties have been notified individually. All required information and attachments are included for a complete Form C-108. The well is located on state land and minerals.

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 Spur Energy Partners, LLC

Cc: Application attachment and file

### **APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: **SWD Reinstatement** and the application **qualifies** for administrative approval.

II. OPERATOR: Spur Energy Partners, LLC (Ogrid – 328947)

ADDRESS: 9655 Katy Freeway, Ste.500, Houston, Texas 77024

CONTACT PARTY: Sarah Chapman, Spur Regulatory Director (832) 930-8502

Agent: SOS Consulting, LLC - Ben Stone (903) 488-9850

- III. WELL DATA: All well data and applicable wellbore diagrams are ATTACHED hereto.
- 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. (2 AOR wells penetrate the subject interval 1 P&A'd.) 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.
- 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. The well may be acidized to clean perforations and formation w/ approximately 7500 gals 15% HCl.
- \*X. There is no applicable test data on the well however, any previous well logs have been filed with the Division and they need not be resubmitted. An offsetting well log strip of subject interval is ATTACHED.
- \*XI. State Engineer's records indicate there are NO water wells within one mile the proposed SWD.
- 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 is 1 offset operators plus state and federal minerals within one mile all have been noticed.
- 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 / consultant for Spur Energy Partners, LLC SIGNATURE: DATE: 10/27/2021

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:

### Page 2

- III. WELL DATA The following information and data is included and ATTACHED:
- 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:

- (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.

e-Permitting

C-108 Submittal

Attachment Category

C-102

District I

1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

1220 S. St. Franc is Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

## State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

### WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Numbe -015-27			<sup>2</sup> Pool Code 96099	2	<sup>3</sup> Pool Name SWD; Cisco										
4 Property C	Code				<sup>5</sup> Property N		<sup>6</sup> Well Number									
TBD					1											
7 OGRID	No.				8 Operator N	Name			<sup>9</sup> Elevation							
32894	7			Spu	r Energy Par	3577'										
	<sup>10</sup> Surface Location															
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet fr om the	East	t/West line	County						
N	16	17S	29E		660'	FSL	1980'	F	WL	Eddy						
			п Во	ttom Hol	le Location If	Different Fron	n Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	t/West line	County						
same																
12 Dedicated Acres	s 13 Joint o	r Infill 14 Co	nsolidation (	Code 15 Or	der No.											
n/a				5	SWD pending	1										

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16				17 OPERATOR CERTIFICATION
				I hereby certify that the information contained herein is true and complete
				to the best of my knowledge and belief, and that this organization either
				owns a working interest or unleased mineral interest in the land including
				the proposed bottom hole location or has a right to drill this well at this
				location pursuant to a contract with an owner of such a mineral or working
				interest, or to a voluntary pooling agreement or a compulsory pooling
				order perezofore entered by the division.
				10/12/2021
				10/13/2021 Signature Date
				Ben Stone
				Printed Name
				ben@sosconsulting.us
				E-mail Address
				<sup>18</sup> SURVEYOR CERTIFICATION
				I hereby certify that the well location shown on this
				plat was plotted from field notes of actual surveys
				made by me or under my supervision, and that the
				same is true and correct to the best of my belief.
				A
				August 19, 1992 Date of Survey
				Signature and Seal of Professional Surveyor.
				Signature and Sear of Professional Surveyor.
1980'				
← 1900	ļ	o		
				Richard B. Duniven
		660'		4882
				Certificate Number
	•	,		

e-Permitting

C-108 Submittal

**Attachment Category** 

Wellbore Diagram

### C-108 - Items III, IV, V

**Item III - Subject Well Data** 

Wellbore Diagram – PROPOSED

### Item IV - Tabulation of AOR Wells

Tabulation includes all construction data for all wells within a one-half mile radius. 2 wells pentrate the proposed injection interval - 1 is plugged back and 1 P&A.

### Item V – Area of Review Maps

- 1. Two Mile AOR Map with One-Mile Fresh Water Well Radius
  - 2. One-Half Mile AOR Map

All Above Exhibits follow this page.



### WELL SCHEMATIC - PROPOSED Muskegon 16 State Well No.1 SWD

SWD; Cisco (96099)

### API 30-015-27108

660' FSL & 1980' FWL, SEC. 16-T17S-R29E EDDY COUNTY, NEW MEXICO Spud Date: 10/04/1992 Config SWD Dt (Est): ~1/15/2022

Injection Pressure Regulated and Volumes Reported 1780 psi Max. Surface (0.2 psi/ft)

### Surface Casing

13.375", 48.0/ 54.5# H-40/ J-55 STC Csg. (17.5" Hole) @ 440' 500 sx - Circulated to Surface

### **Intermediate Casing**

9.625", 40.0# J-55 Csg. (12.25" Hole) @ 2650' 1100 sx - Circulated to Surface

### SPUR ENERGY PARTNERS, LLC

### Reinstate SWD Status:

Spot / Dump 35' Cement on Existing CIBP.
Perforate Addition al Specific Intervals TBD
between 8900' and 9300'.
Acidize w/ ~7500 gals 15% HCl
Run PC Tubing and PKR - Conduct Witn essed MIT.
Commence Disposal Operations.

### 3.5" IC Tubing (or smaller)

PKR ~8800'+

Note: PRK Set 100' Above Final Uppermost Perf Interval.

Cisco Perfs - may shoot additional within permitted interval.

Specific Additional Perf Intervals To Be Determined

Between Max Top 8900' and Max Bottom 9300'

Current Intervals: 8914-18', 8924-34', 8943-47', 8978-82', 9030-32', 9180-91' and 9217-31'.

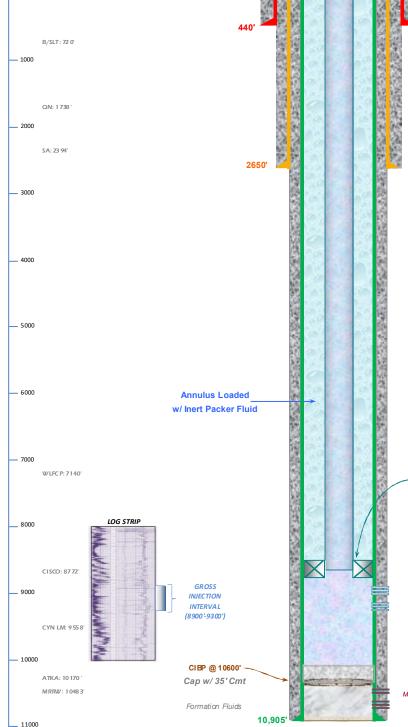
### **Production Casing**

5.5", 15.5/17.0# J-55/ K-55 Csg. (8.75" Hole) @ 10,905';
DV @ 8800\w/ 1st 730 sx; 2nd 1870 sx - Circulated to Surface

Morrow test perfs: 10,645'-10,812'

DTD @ 10914'





Annulus Monitored

or open to atomosphere

e-Permitting

C-108 Submittal

**Attachment Category** 

**Operational Details** 

### C-108 ITEM VII - PROPOSED OPERATION

The Muskegon 16 State No.1 SWD will be operated as a private disposal well to service Spur Energy Partners area operations. Source and disposal zone formation waters are compatible (representative analyses of several zones are included herein).

Note: This C-108 application is to reinstate the previous authorization by OCD Order SWD-624. Spur Energy Partners has acquired hundreds of wells since 2019. As operations are evaluated and assets assessed, this particular SWD had already lost focus by the previous operator. Spur Energy Partners believes reinstatement of this SWD will protect the environment and prevent waste.

The cost to dispose of produced water via trucking has become cost prohibitive and if continued, would certainly reduce lease economics and create waste by unnecessary trucking costs including fuel. The average daily rate of this SWD would eliminate approximately three dozen transport truck trips per day. Reinstating the well to lease disposal will allow the operator to maintain sufficient in-house disposal volume and continue economic viability for their operated wells in the area. The well will not be open for commercial disposal from other operators' leases.

The system will be closed utilizing a small tank battery and injection pump facility on site with flowlines from the serviced wells. The tanks and associated equipment are inside an appropriate lined berm area to contain 150% of the largest tank volume.

Injection pressure will be 1780 psi (0.2 psi/ft) with and maximum rate of 7500 bwpd. Average daily rate is expected to be 5000 bwpd or less.

Routine maintenance will be ongoing and any releases will be reported within 24 hours to OCD on form C-141 pursuant to various portions of 19.15.29 and 30 NMAC. Remediation would commence immediately upon assessment and planning to include all required documentation and reporting.

The facility will not be manned but will be available for inspections at any time deemed necessary by OCD.

### **C-108 ITEM VII - PROPOSED OPERATION**

### <u>Operations – Aerial View</u>

This view shows a portion of Spur Energy Partners operated wells that will be serviced by the Muskegon 16 State #1 SWD.



The system will be closed utilizing a small tank battery and injection pump facility on site with flowlines from the serviced wells. The tanks and associated equipment are inside an appropriately lined berm area to contain 150% of the largest tank volume.



e-Permitting

C-108 Submittal

Attachment Category

**Proof of Notice** 

### Muskegon 16 State No.1 SWD- Affected Parties Plat

(Attachment to NMOCD Form C-I 08, Application for Authority to Inject.)

WNE G)	SENE (H)	SWHW (EX	T.3	SWINE (G) B1071	SENE (H1) (40 0.12	
vise .d)	NESE (1)	NWISNI (LA)	T <sub>6</sub> 2	NVSE (4)	MESE (1)	
0)	SESE (P)		50014 1 SESW 17829	swse 101	SESE LP1	
WNE. B1	MENE (A)	Monthly (O)	NE/WV	MWNE	MENE VAY	
ONSIE G)	SEME (H)	SWNW (E)	T.5	SWNE (G)	Sene (H)	B:



LEGEND

(Note: All leases have active operators, shown below.)

T.1 – State – B0-0255-0014; Spur Energy Partners

T.2 - State - B0-2023-0019; Spur Energy Partners

T.3 – State – K0-3790-0007; Spur Energy Partners

T.4 – State – B1-0714-0012; Spur Energy Partners

T.5 - State - B0-9563-0011; Spur Energy Partners

T.6 – State – B0-6846-0003; Longfellow Energy, LP

T.7 - BLM - NMNM-014847; Longfellow Energy, LP

### C-108 ITEM XIII – PROOF OF NOTIFICATION AFFECTED PARTIES LIST

ALL AFFECTED PARTIES ARE PROVIDED A NOTICE LETTER VIA US CERTIFIED MAIL AND A FULL PRINTED COPY OF THE SUBJECT C-108 APPLICATION VIA FEDEX.

"AFFECTED PERSON" MEANS THE DIVISION DESIGNATED OPERATOR; IN THE ABSENCE OF AN OPERATOR, A LESSEE WHOSE INTEREST IS EVIDENCE BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILES THE APPLICATION; OR IN THE ABSENCE OF AN OPERATOR OR LESSEE, A MINERAL INTEREST OWNER WHOSE INTEREST IS EVIDENCED BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILED THE APPLICATION FOR PERMIT TO INJECT.: PER OCD RULES NMAC 19.15.26.7. A. AND 19.15.26.8. B.2.

### SURFACE OWNER

1 STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504
Certified: 7018 2290 0001 2038 7275

**OFFSET OPERATORS** (All Notified via USPS Certified Mail)

<u>State Leases B0-0255-0014, B0-2023-0019, KO-3790-0007, B1-0714-0012, B0-9563-0011 and B0-6846-0003 (T.1-T.6 on Map)</u>

Operator

SPUR ENERGY PARTNERS, LLC (Applicant) 9655 Katy Freeway, Ste.500 Houston, Texas 77024

### BLM Lease NMNM-014847 (T.7 on Map)

Operator

2 LONGFELLOW ENERGY, LP 8115 Preston Rd., Suite 800 Dallas, Texas 75225 Certified: 7018 2290 0001 2038 7268

### OFFSET MINERALS OWNERS (Notified via USPS Certified Mail)

STATE OF NEW MEXICO Oil, Gas and Minerals Division 310 Old Santa Fe Trail Santa Fe, NM 87504 U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Certified: 7018 2290 0001 2038 7251

### **REGULATORY**

NEW MEXICO OIL CONSERVATION DIVISION 1220 S. St. Francis Dr. Santa Fe, NM 87505
FILED VIA OCD ONLINE E-PERMITTING

NEW MEXICO OIL CONSERVATION DIVISION 811 South First St. Artesia, NM 88210

STATE OF NEW MEXICO Oil, Gas and Minerals Division 310 Old Santa Fe Trail Santa Fe, NM 87504





October 20, 2021

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

### To Whom It May Concern:

Spur Energy Partners, Houston, Texas, has made application to the New Mexico Oil Conservation Division to <u>reinstate</u> for salt water disposal its Muskegon 16 State Well No.1. The previously authorized SWD operation will be for private water disposal from Spur's area operations. As indicated in the notice below, the well is located in Section 16, Township 17 South, Range 29 East in Eddy County, New Mexico.

The published notice states that the interval will be from 8,900 feet to 9,300 feet into the Cisco formation.

Following is the notice published in the Artesia Daily Press, Artesia, New Mexico on or about October 21, 2021.

### LEGAL NOTICE

Spur Energy Partners, LLC, 9655 Katy Freeway, Ste.500, Houston, TX 77024, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to reinstate a salt water disposal well. The subject well, the Muskegon 16 State SWD No.1, is located 660' FSL and 1980' FWL, (UL 'N') Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico. Produced water from Spur's area production will be privately disposed (not open to commercial disposal) into the Cisco formation at depths of 8900' to 9300' at a maximum surface pressure of 1780 psi, maximum daily rate of 7500 bwpd and an average rate of 5000 bwpd. The subject SWD well is located approximately 6.1 miles west of Loco Hills, NM.

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 printed copy will be sent via FedEx when the C-108 is completed in a few days.

Thank you for your attention in this matter.

Best regards,

Ben Stone, SOS Consulting, LLC Agent for Spur Energy Partners, LLC

Cc: Application File

### C-108 - Item XIV

Proof of Notice - Certified Mail Receipts

75	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT  Domestic Mail Only
7	For delivery information, visit our website at www.usps.com®.
0001 2038	Certifled Mail Fee  \$ Extra Services & Fees (check box, add fee as appropriate)    Return Receipt (hardcopy)
2290	s
'n	Total Postage and Fees
7018	Sent To
2	STATE OF NEW MEXICO
	Oil, Gas and Minerals Division
	PS Form Santa Fe NM 87504 Ictions



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(https://req.usps.com/xsell?

app=Usps Toob&ref=ho.nepage Banner&app URL=https %3A%2F%2F informed delivery. usps.com/box/pages/intro/start.action) appears the property of the property of

### State Land Office

**Tracking Number:** 70182290000120387275

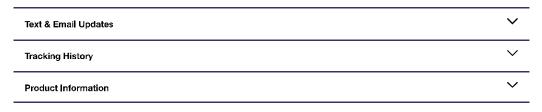
Remove X

Your item was picked up at a postal facility at 6:32 am on October 25, 2021 in SANTA FE, NM 87501.

### Oblivered, Individual Picked Up at Postal Facility

October 25, 2021 at 6:32 am SANTA FE, NM 87501

Get Updates ✓



See Less 🔨

### Longfellow Energy, LP

Tracking Number: 70182290000120387268

Remove X

Your item was delivered to an individual at the address at 12:45 pm on October 22, 2021 in DALLAS, TX 75225.

### **⊘** Delivered, Left with Individual

October 22, 2021 at 12:45 pm DALLAS, TX 75225

Get Updates ✓

See More 🗸

### Bureau of Land Management - CFO

Tracking Number: 70182290000120387251

Remove X

We attempted to deliver your package at 1:44 pm on October 23, 2021 in CARLSBAD, NM 88220 but could not access the delivery location. We will redeliver on the next business day.

### **Delivery Attempted - No Access to Delivery Location**

October 23, 2021 at 1:44 pm CARLSBAD, NM 88220

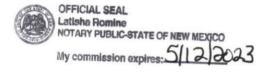
Get Updates ✓

See More ✓

### Can't find what you're looking for?

### Affidavit of Publication

N	0.	25908									
State of New Mexico		Publisher									
County of Eddy:	/	1									
Danny Scott	- 2/c										
being duly sworn sayes that	at he is the	Publisher									
of the Artesia Daily Press,	a daily newspa	per of General									
circulation, published in English at Artesia, said county											
and state, and that the hereto attached											
Legal	Ad										
was published in a regula	r and entire issu	e of the said									
Artesia Daily Press, a dail	y newspaper du	ly qualified									
for that purpose within the	meaning of Ch	apter 167 of									
the 1937 Session Laws of	the state of Nev	w Mexico for									
1 Consecutive v	veeks/day on the	e same									
day as follows:											
First Publication	October	21, 2021									
Second Publication											
Third Publication											
Fourth Publication											
Fifth Publication											
Sixth Publication											
Seventh Publication											



October

2021

Subscribed and sworn before me this

day of

Latino Romine

Latisha Romine

21st

Notary Public, Eddy County, New Mexico

### Copy of Publication:

Legal Notice

Spur Energy Partners, LLC, 9655 Katy Freeway, Ste.500, Houston, TX 77024, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to reinstate a salt water disposal well. The subject well, the Muskegon 16 State SWD No.1, is located 660' FSL and 1980' FWL, (UL 'N') Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico. Produced water from Spur's area production will be privately disposed (not open to commercial disposal) into the Cisco formation at depths of 8900' to 9300' at a maximum surface pressure of 1780 psi, maximum daily rate of 7500 bwpd and an average rate of 5000 bwpd. The subject SWD well is located approximately 6.1 miles west of Loco Hills, NM.

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., Oct. 21, 2021 Legal No. 25908.

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	A Signature  Agent  Addressee  B. Received by (Printed Name)  C. Date of Delivery
Article Addressed to:	D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No
Bureau of Land Management Oil & Gas Division 620 E. Greene St.	
Carlsbad, NM 88220  Muskegon	3. Service Type  Certified Mail Registered Insured Mail C.O.D.
2. Article N	4. Restricted Delivery? (Extra Fee) ☐ Yes
(Transfer 7018 2290 0001 2038	
PS Form 3811 Fabrus 2004	- callb
Domestic Retu	rn Receipt 102595-02-M-1540

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e-Permitting

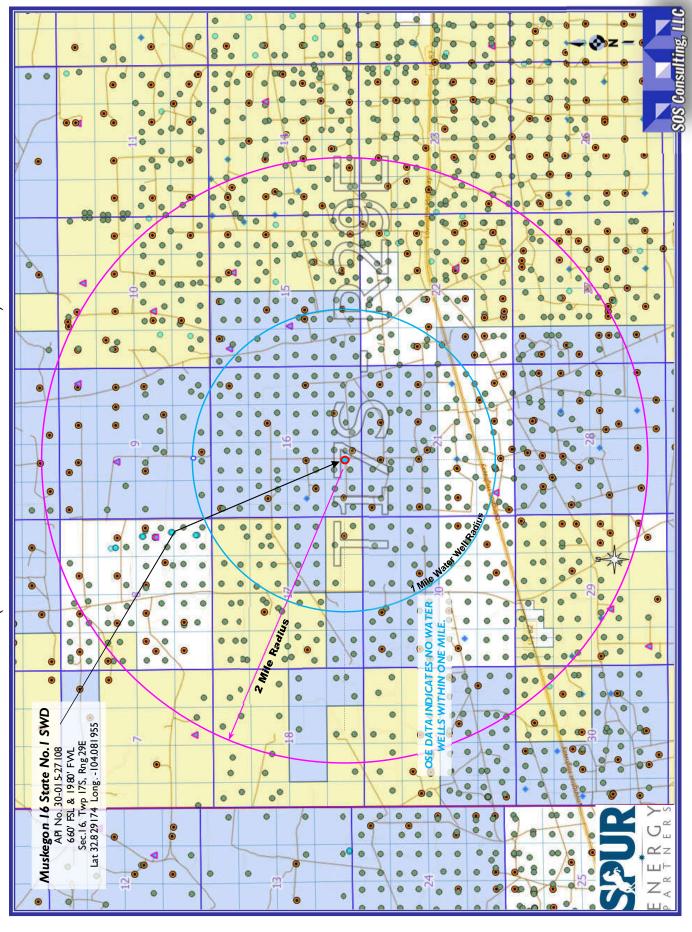
C-108 Submittal

**Attachment Category** 

**AOR Analysis** 

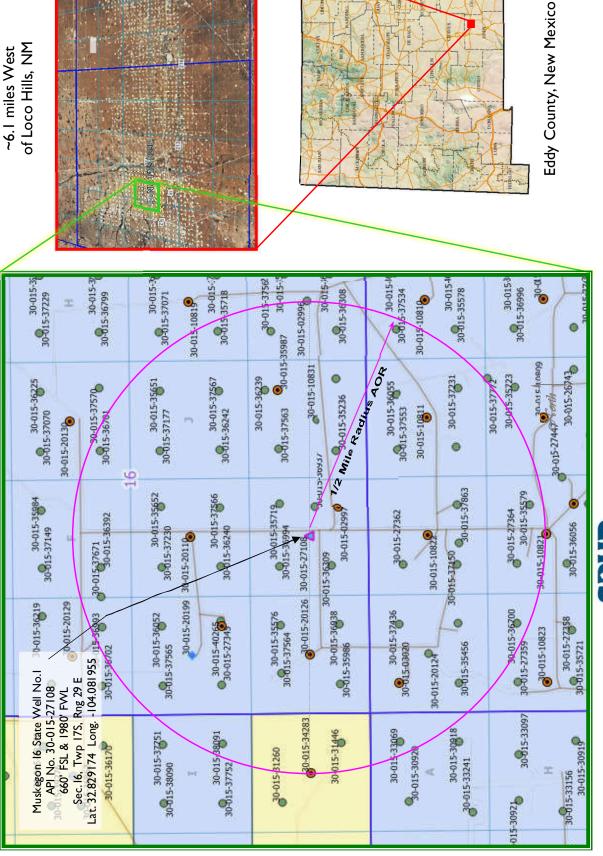
# Muskegon 16 State No.1 SWD - Area of Review / 2 Miles

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



# Muskegon 16 State No.1 - Area of Review / Overview Map

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







### C-108 ITEM X - LOGS and AVAILABLE TEST DATA

A log strip from the Muskegon 17 Federal Com Well No.2, API No.30-015-34283, located in P-17-17S-29E is attached.

This well is approximately 0.5 miles west of the proposed SWD and shows the interval of interest, above and below.

**LOG STRIP FOLLOWS** 

### Log Header Page 1

HALLIBU

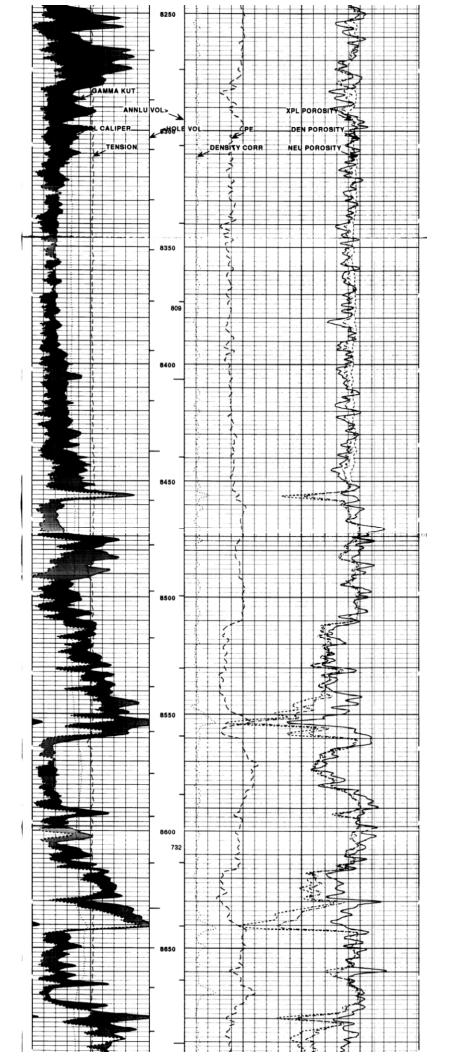
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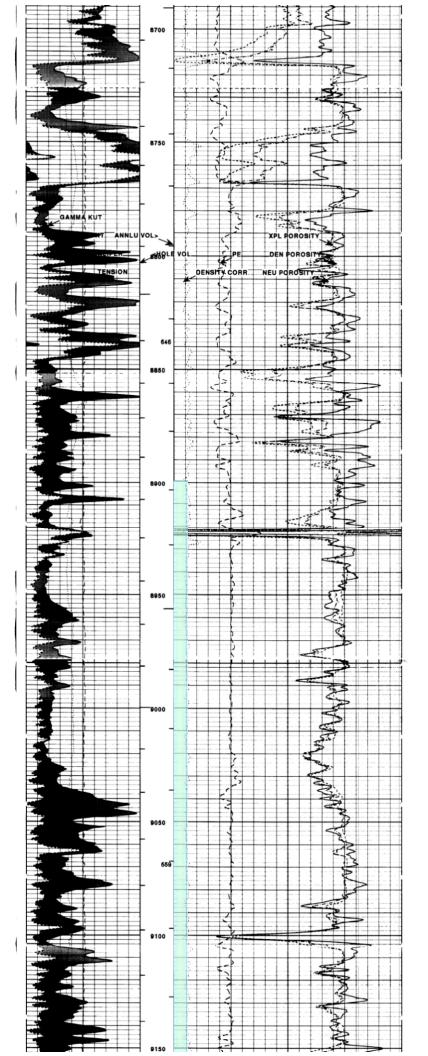
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FAR QUALITY

Log - Page 2

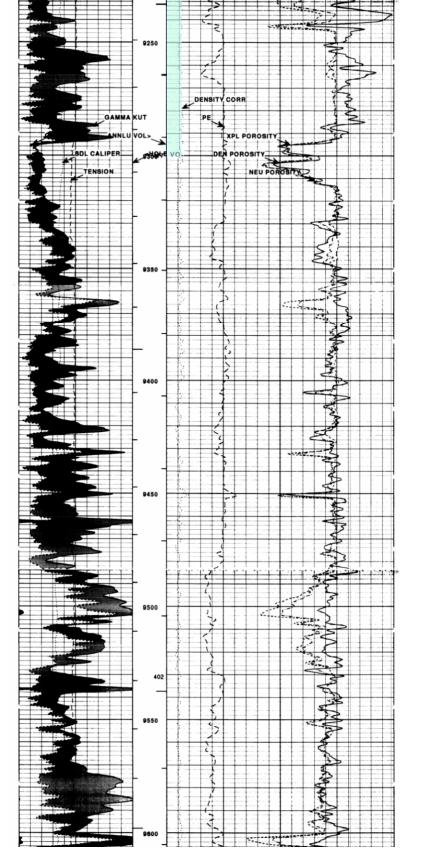




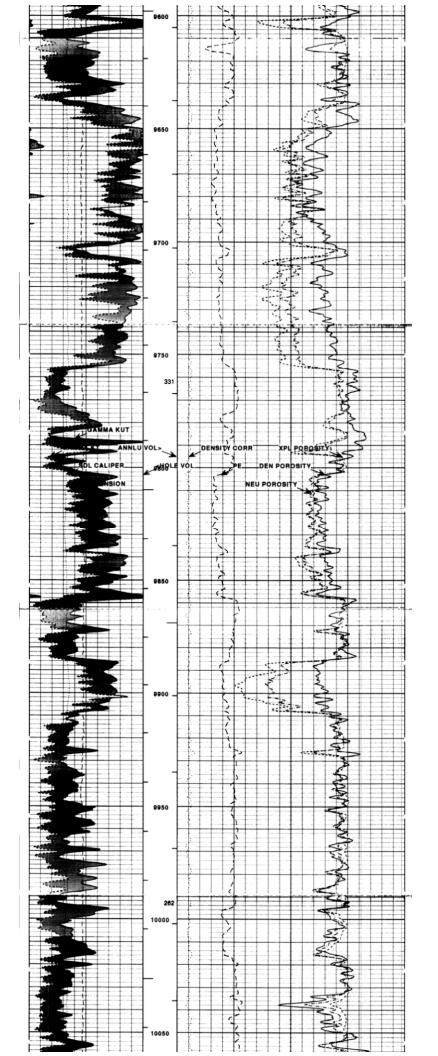
TOP Proposed Interval

Log - Page 4





Log - Page 5



### C-108 ITEM VIII GEOLOGIC INFORMATION

The Cisco Formation (Upper Penn) is a gray micritic (fine grained) fossiliferous limestone with vugular porosity as well as dolomite. The reservoirs in this area are usually limited in size with up dip porosity loss due to shelf margin carbonate build up; overall thickness averages 600 to 650 feet in the area. The upper portion becomes very shaley and is not proposed for injection.

The Cisco interval offers some good porosity in the proposed injection interval located from 8900 feet to 9300 feet with some very good porosity interspersed throughout the overall interval.

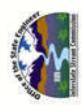
The Cisco is overlain by the Wolf Camp and then Bone Spring and underlain by the Strawn and Atoka.

There are no known domestic water wells within one mile of the proposed SWD well. There is a potential source of drinking water in the overlying sands occurring at a depth from surface of up to 250 feet. The upper part of the section on average consists of 200 ft of Holocene alluvial deposits of caliche, sand, gravel, and clay. Included in this interval are red sandstone and shale of the Chinle formation and Santa Rosa sandstone and similar deposits of the Dewey Lake formation. These formations are underlain by the Rustler and Salado formations.

There are no known sources of water <10,000 mg/l TDS which underlie the injection zones.

Production in the area is generally from Glorieta and Yeso, then shallower and more widely from the Artesia Group formations. The AOR wells largely are completed in the GJ [Grayburg Jackson]; 7Rrvs-Qn-GB-Glorieta-Yeso Pool, Pool ID 97558 and from the Granbury Jackson; SR-Q-G-SA Pool, Pool ID 28509.

Deeper tests into the Morrow and other formations did not result in economic wells. Of two deeper wells in the AOR, one has been plugged back and recompleted to the abovementioned pool and the other is P&A'd.



# Active & Inactive Points of Diversion New Mexico Office of the State Engineer

(with Ownership Information)

No PODs found.

PLSS Search:

Range: 29E Township: 17S Section(s): 16, 17, 20, 21

ACTIVE & INACTIVE POINTS OF DIVERSION 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, or suitability for any particular purp active data.

10/10/21 12:55 PM

ACTIVE & INACTIVE POINTS OF DIVERSIC



### 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

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

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

(In feet)

POD QQQ Sub-Depth Depth Water **POD Number** Code basin County 64 16 4 Sec Tws Rng **Well Water Column** RA 11807 POD1 1 2 3 22 17S 29E 587360 3631585 131 55

> Average Depth to Water: 76 feet

> > Minimum Depth: 76 feet

Maximum Depth: 76 feet

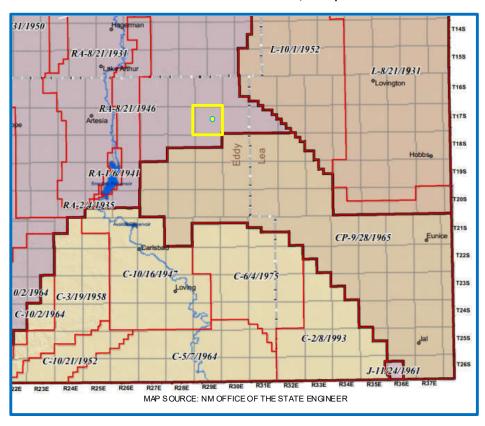
**Record Count: 1** 

**PLSS Search:** 

Township: 17S Range: 29E

### C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Roswell Artesian Basin.

The Roswell Artesian Basin consists of an eastward-dipping carbonate aquifer overlain by a leaky evaporitic confining unit, overlain in turn by an unconfined alluvial aquifer. The carbonate aquifer is artesian to the east but under water-table conditions in the western outcrop area.

Water-producing zones in the carbonate aquifer rise stratigraphically from north to south and from west to east. Some wells may penetrate as many as five water-producing zones. Secondary porosity is developed in vuggy and cavernous limestone, solution-collapse breccia, and solution-enlarged fractures. Recharge occurs by direct infiltration of precipitation and by runoff from intermittent losing streams flowing eastward across a broad area east of the Sacramento Mountains. (USGS)

State Engineer's records show water wells in 17S-29E with an average depth to water at 76 feet, based on ONE well record in the township.

There are NO water wells located within one mile of the proposed SWD.



### 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: Spur Energy Partners, LLC

Muskegon 16 State No.1 SWD

Reviewed 10/22/2021

### e-Permitting

C-108 Submittal

**Attachment Category** 

Tabulation of Wells in AOR

## Form C-108 Item VI - Tabulation of AOR Wells

	To p of Proposed GSCO Interval 8900'				2 Wells Pe	netrate Pro	2 Wells Penetrate Proposed Interval.		
ADI No	Cirrant Onarator	MollNamo	Well Nimber	Down	920	Status	IIISTR	Donth	DliggedOn
Subject Well	5555				3	222			200
30-015-27108	[328947] Spur Energy Partners LLC	MUSKEGON 16 STATE COM	#001	SWD	State	Active	N -16-175-29E	10905	
Section 16 Wells									
30-015-36993	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#219	Oil	State	Active	E -16-17S-29E	5501	
30-015-36392	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	# 200	Oil	State	Active	F -16-17S-29E	5462	
30-015-37671	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#302	Oil	State	Active	F -16-17S-29E	5576'	
30-015-36701	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#222	Oil	State	Active	G -16-17S-29E	5454'	
30-015-35718	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#166	Oil	State	Active	I -16-17S-29E	5459'	
30-015-35651	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#161	Oil	State	Active	J -16-17S-29E	5640'	
30-015-36242	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#196	Oil	State	Active	J -16-17S-29E	5463'	
30-015-37177	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#230	Oil	State	Active	J -16-17S-29E	5506	
30-015-37567	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#231	Oil	State	Active	J -16-17S-29E	5565	
30-015-20110	[13837] MACK ENERGY CORP	G J WEST COOP UNIT	#057	Oil	State	P&A-R	K -16-17S-29E	3100	4/9/2001
30-015-35652	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#162	Oil	State	Active	K -16-17S-29E	5470'	
30-015-36240	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#195	Oil	State	Active	K -16-17S-29E	5456'	
30-015-37230	[3 28 94 7] Spur Energy Partners LLC	G J WEST COOP UNIT	#232	Oil	State	Active	K -16-17S-29E	5520	
30-015-37566	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#233	Oil	State	Active	K -16-17S-29E	5567	
30-015-20199	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#058 In	Injection	State	Active	L -16-17S-29E	2600'	
30-015-36052	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#181	Oil	State	Active	L -16-17S-29E	5454'	
30-015-36228	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#189	Oil	State	Active	L -16-17S-29E	5446'	
30-015-37565	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#234	Oil	State	Active	L -16-17S-29E	5588	
30-015-40265	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#325	Oil	State	Active	L -16-17S-29E	5724'	
30-015-20126	[13837] MACK ENERGY CORP	G J WEST COOP UNIT	# 049	Oil	State	P&A-R	M -16-17S-29E	2900	8/3/2000
30-015-35576	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#154	Oil	State	Active	M -16-17S-29E	2600	
30-015-35986	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#179	Oil	State	Active	M -16-17S-29E	5494'	
30-015-37564	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#235	Oil	State	Active	M -16-17S-29E	5522'	
30-015-36938	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#236	Oil	State	Active	M -16-17S-29E	5500	
30-015-02997	[214263] PRE-ONG ARD WELL OP ERATOR	PRE-ONGARD WELL	#001	Oil	State	P&A-R	N -16-17S-29E	3053	9/28/1940
30-015-35719	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#167	Oil	State	Acti ve	N -16-17S-29E	5506	
30-015-36309	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#198	Oil	State	Active	N -16-17S-29E	5476'	
30-015-36994	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#237	Oil	State	Active	N -16-17S-29E	5500	
30-015-36937	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#238	Oil	State	Active	N -16-17S-29E	5202	
30-015-35987	[229137] COG OPERATING LLC	G J WEST COOP UNIT	#180	Oil	State	P&A-R	O -16-17S-29E	331'	3/12/2008
30-015-10831	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#051	Oil	State	Active	O -16-17S-29E	2700'	
30-015-35236	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#146	Oil	State	Active	O -16-17S-29E	5515'	
30-015-36239	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#180Y	Oil	State	Active	O -16-17S-29E	5450'	
30-015-37563	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#239	Oil	State	Active	O -16-17S-29E	5588	
30-015-36936	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#243	Oil	State	Active	O -16-17S-29E	5500	
30-015-02996	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#052	li0	State	Active	P -16-17S-29E	10967	2900' PBTD
Wella	Well dri'd as Morrow test; P&A'd 10/02/1959; Reentered 6/11/1966; C/O to 2900; 5.5 " csg set 2899' w/ 400 sx, TOC 1340' Temp; Perf 2598'-2 748' San Andres; acidiz e& frac; well on pump; "1 bopd, last prod. Rpt. July 2021	166; C/O to 2900'; 5.5 " csg set 2899' w/	400 sx, TOC 1340" Ten	ıp; Per† 2598	2748' San Aı	ndres; acidize &	jrac; well on pu mp; ™1 b	opd, last prod	. Rpt. July 2021



# Form C-108 Item VI - Tabulation of AOR Wells (cont.)

Section 17 Wells									
30-015-36308	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#199	Oil	State	Active	P -16-17S-29E	5475'	
30-015-37562	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	# 240	Oil	State	Active	P -16-17S-29E	5545'	
30-015-38091	[328947] Spur Energy Partners LLC	FOLK STATE	#008	Oil	State	Active	I -17-17S-29E	5128'	
30-015-34283	[162683] CIMAREX ENERGY CO. OF COLO RADO	MUSKEGON 17 FED ER AL COM	#005	Gas	Fe deral	P&A-R	P -17-175-29E	<b>10915' 4/21/2009</b> See attached P&A Diagram.	<b>4/21/2009</b> &A Dia gra m
30-015-31446	[372210] LONGFELLO W ENERGY, LP	PHILLIPS 17 FEDERAL	#003	lio	Federal	Active	P -17-17S-29E	4427'	
Section 20 Wells 30-015-33069	[372210] LONGFELLOW ENERGY, LP	STATE 20 B	#014	lio	State	Active	A -20-17S-29E	4327'	
Section 21 Wells									
30-015-37534	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#244	Oil	State	Active	A -21-175-29E	5530'	
30-015-10811	[229137] COG OPERATING ILC	G J WEST COOP UNIT	#046	Oil	State	P&A-R	B -21-175-29E	2900,	10/6/2010
30-015-35720	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#168	Oil	State	Active	B -21-175-29E	5445'	
30-015-36055	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#183	Oil	State	Active	B -21-175-29E	5450'	
30-015-37553	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#246	Oil	State	Active	B -21-175-29E	5537'	
30-015-37231	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#247	Oil	State	Active	B -21-175-29E	5520'	
30-015-10822	[229137] COG OPERATING LLC	G J WEST COOP UNIT	# 047	Injection	State	P&A-R	C -21-17S-29E	2720'	8/1/2000
30-015-27362	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#117	Oil	State	Active	C -21-175-29E	4920	
30-015-27363	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#118	Oil	State	Active	C -21-175-29E	4410'	
30-015-37150	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#249	Oil	State	Active	C -21-17S-29E	5504'	
30-015-37863	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#308	Oil	State	Active	C -21-17S-29E	5522'	
30-015-20124	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	# 048	Oil	State	Active	D -21-175-29E	4225'	
30-015-27360	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#115	Oil	State	Active	D -21-175-29E	4758'	
30-015-35456	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#152	Oil	State	Active	D -21-175-29E	5515'	
30-015-37436	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#250	Oil	State	Active	D -21-175-29E	5545'	
30-015-36700	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#251	Oil	State	Active	E -21-17S-29E	5459'	
30-015-10821	[13837] MACK ENERGY CORP	G J WEST COOP UNIT	#036	Oil	State	P&A-R	F -21-17S-29E	2900,	5/4/2000
30-015-27364	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#119	Oil	State	Active	F -21-17S-29E	4400'	
30-015-27447	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#120	Oil	State	Active	F -21-175-29E	4417'	
30-015-35579	[3 28 947] Spur Energy Partners LLC	G J WEST COOP UNIT	#157	Oil	State	Active	F -21-175-29E	6116'	
30-015-37772	[328947] Spur Energy Partners LLC	G J WEST COOP UNIT	#306	Oil	State	Active	G -21-17S-29E	5605	

SUMMARY: Total AOR contains 63 wells with 8 P &A; 2 wells penetrate proposed disposal interval - 1 P&A'd.



### **C-108 ITEM VI**

**AOR Well Information** 

### **Plugged Well Schematics**

There is 1 P&A'd Well and 1 Well Plugged Back and Recompleted Within the AOR Which Penetrate the Proposed Injection Zone.

Both Well Schematics follows this page...

10 222-10 226 7040-7238 Form 3160-5 (September 2001)

### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED OMB NO 1004-0135

Expires January 31, 2004 5 Lease Serial No.

### SUNDRY NOTICES AND REPORTS ON WELLS

MAY 12 2009 NM 14847

Do not use this form for p abandoned well. Use Form				o II Indian, Alic	ottee or Tribe Name	
SUBMIT IN TRIPLICATE - 0	Other instructions on	reverse side		7 If Unit or CA	/Agreement, Name a	ınd/or No
Type of Well  X Oil Well Gas Well Other  Name of Operator  CIMAREX ENERGY CO. OF COLORADO	ATIN: ZENO FARRI	īs.		8. Well Name a  MUSKEGON 1  FEDERAL CO  9 API Well No	7 #2 M.	
a. Address	3b	Phone No. (include ar	ea code)	30-015-342		
5215 N. O'CONNOR BLVD., STE. 1500,	IRVING, TX 75039	972.443.6489			Pool, or Exploratory	Area
Location of Well (Footage, Sec. T. R. M. or Survey I	Description)			EMPIRE; ABO		
UNIT LETTER P						
660' FSL & 660' FEL				11. County or	Parish, State	
SECTION 17, T-17S, R-29E				EDDY	NM	
12 CHECK APPROPRIATE	BOX(ES) TO INDICA	TE NATURE OF I	NOTICE, REF	PORT, OR OTH	IER DATA	
TYPE OF SUBMISSION			PE OF ACTION			
F		<u> </u>				
Notice of Intent	Acidize	Deepen	Production	on (Start/Resume)	Water Shut-Off	
rm	Alter Casing	Fracture Treat	Reclamat	ion	Well Integrity	
X Subsequent Report	Casing Repair	New Construction	Recompl	ete	Other	
	Change Plans	X. Plug and Abandon	Tempora	rily Abandon		
Final Abandonment Notice						
	Convert to Injection	Plug Back	Water Di	sposai		
04/01-07/09: FISH & LAY DOWN 1,07 04/08/09: RIH W/ TUBING & STACKED PUMP A 30 SX. CMT. PLUX 04/10/09: MIX & PUMP A 40 SX. CMI 04/13/09: MIX & PUMP A 25 SX. CMI 04/14/09: MIX & PUMP A 25 SX. CMI 04/15/09: MIX & PUMP A 25 SX. CMI 04/16/09: MIX & PUMP A 25 SX. CMI 04/17/09: MIX & PUMP A 25 SX. CMI 04/17/09: MIX & PUMP A 25 SX. CMI 04/17/09: MIX & PUMP A 25 SX. CMI 04/20/09: MIX & PUMP A 25 SX. CMI 04/20/09: MIX & PUMP A 25 SX. CMI WCC & TAG CMT. PLUG @ 9 04/21/09: MIX & CIRC. TO SURFACE WELD ON STEEL PLATE & I	74' 5-1/2" CASING I 0 OUT @ 9,755' - OK G @ 9,755'; WOC & T I. PLUG @ 7,290'; W I. PLUG @ 7,101'; W I. PLUG @ 5,425'-5, OF CMI. PLUG @ 3,51 I. 2,305'; WOC & TA II. PLUG @ 2,195'; W II. PLUG @ 2,195'; W II. PLUG @ 2,140'-1, 918'; MIX & PUMP A A 95 SX. CMI. PLUG	TO BY BIM FIELD AG TOP OF CMT. CC & TAG TOP OF CC & TAG TOP OF CC & TAG TOP OF 225' (CALC.); MI 8'. G TOP OF CMT. P CC & TAG CMT. P 940' (CALC.); MI 60 SX. CMT. PLU	PLUG ( 9,39 CMT. PLUG CMT. PLUG CMT. PLUG X & PUMP A LUG ( 2,199 LUG ( 2,140 X & PUMP A G ( 320); V CUT SASPIT	93'; CIRC. WE  @ 7,101'.  @ 7,101'.  @ 6,778'.  35 SX. CMT.  5'.  75 SX. CMT.  WCC & TAG CM	PLUG @ 1,130° T. PLUG @ 225° Cing of the Well b	). ';
14. I hereby certify that the loregoing is true and correct	/09.	Title	Surac	e restoration is	completed.	
Name (Printed/Typed)  DAVID A. EYLER . devler@m	ulagro-res.com	ACENT				
Day Acod	2	Date 04/30/0	9	APP	ROVED	
THI	S SPACE FOR FEDER	AL OR STATE OF	FICE USE			
Approved by	And the second s	Title		MAP	ate 8 2009	!
Conditions of approval, if any, are attached Approval	of this nation done not warra	nt or or		"T'	0 2000	1
certify that the applicant holds legal or equitable title to	o those rights in the subject	nt or Office lease		1000	TO A 11100	1
which would entitle the applicant to conduct operations t	thereon,			JAM	ES A. AMOS	

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department of agents of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

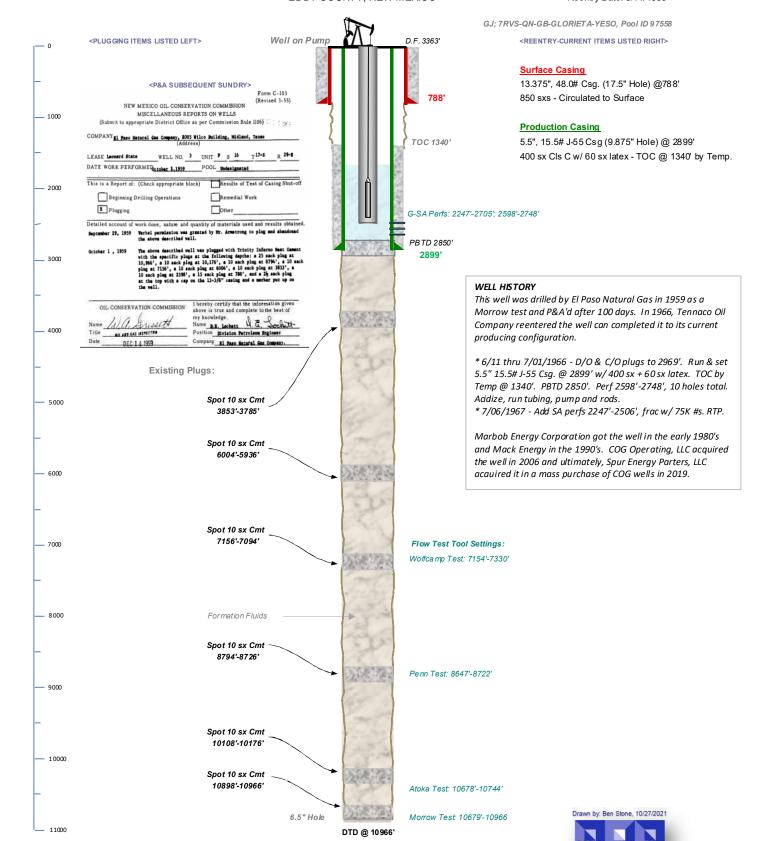
### PLUGGED-BACK WELL SCHEMATIC

### GJ West Coop Unit #52

(Formerly Leonard State No.3)

### API 30-015-02996

660' FSL & 660' FEL, 'P', SEC. 16-T17S-R29E EDDY COUNTY, NEW MEXICO Spud Date: 6/07/1959 P&A Date: 10/01/1959 Reentry Date: 6/11/1966



e-Permitting

C-108 Submittal

**Attachment Category** 

Fluid Analysis

Injectate and Formation

### C-108 ITEM VII – PRODUCED WATER ANAYLSES

### **Item VII.4 – Water Analysis of Source Zone Water**

Tansil-Yates-Seven Rivers Grayburg-San Andres Yeso

### **Item VII.5 – Water Analysis of Disposal Zone Water**

Cisco

Water Analyses follow this page.

### C-108 Item VII.5 - Produced Water Data

### Spur Energy Partners, LLC - Muskegon 16 State No.1 SWD

### **SOURCE ZONE**

### **ARTESIA GROUP - TNSL-YTS-7RVRS**

Lab ID

**API No** 3001502891 Sample ID 5128

Well Name CAVE POOL UNIT 030

Location ULSTR 04 17 S 29 E Lat / Long 32.85900 -104.07829

990 S 2310 E **County** Eddy

Operator (when sampled)

Field GRAYBURG JACKSON Unit O

Sample Date Analysis Date

Sample Source TANK 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 227185 resistivity ohm cm temp

tds\_mgL\_180C conductivity

chloride\_mgL 140700 conductivity\_temp\_F

sodium mgL carbonate mgL

calcium\_mgL bicarbonate\_mgL 47

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

### C-108 Item VII.5 - Produced Water Data Spur Energy Partners, LLC - Muskegon 16 State No.1 SWD

### **SOURCE ZONE**

GRA'	VDI	IDC	CAN	ANIF	DEC
CRA	THI	JK(1	-5AN	$\Delta NI$	JK F.S

Lab ID

Sample ID

5366

API No 3001502873

Sample No

Well Name **GULF STATE** 002

Lat / Long 32.86987

-104.06746

17 S 29 330 990

County

Eddy

Operator (when sampled)

Sample Date

Location ULSTR 03

Field SQUARE LAKE Unit 4

Analysis Date

63070

Ε

Sample Source WELLHEAD

Depth (if known)

WaterTyp

ph

alkalinity\_as\_caco3\_mgL

ph\_temp\_F

hardness\_as\_caco3\_mgL

specificgravity

hardness\_mgL

specific gravity temp F

resistivity\_ohm\_cm

tds\_mgL

109000

resistivity\_ohm\_cm\_temp

tds\_mgL\_180C

conductivity

chloride\_mgL

conductivity\_temp\_F

sodium mgL

carbonate mgL

calcium\_mgL

bicarbonate mgL

iron\_mgL

sulfate\_mgL

barium\_mgL

hydroxide\_mgL

magnesium mgL

h2s\_mgL

potassium\_mgL

co2\_mgL

strontium\_mgL

o2\_mgL

manganese\_mgL

anionre marks

Remarks

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



339

3538

### C-108 Item VII.5 - Produced Water Data Spur Energy Partners, LLC - Muskegon 16 State No.1 SWD SOURCE ZONE

1 50		
	I	Lab ID

Sample ID 5901 API No 3001530307 Sample No Well Name SCHLEY FEDERAL 008 -104.09972 Location ULSTR 29 17 Ε Lat / Long 32.80836 S 29 1580 1650 County Eddy Operator (when sampled) MACK ENERGY Unit F Field EMPIRE EAST Sample Date 8/7/2000 Analysis Date 8/14/2000 Sample Source Depth (if known) WaterTyp 7 ph alkalinity\_as\_caco3\_mgL ph\_temp\_F hardness\_as\_caco3\_mgL specificgravity 1.135 hardness\_mgL specific gravity temp F resistivity ohm cm tds mgL resistivity ohm cm temp 208172 tds\_mgL\_180C conductivity conductivity\_temp\_F 140286 chloride\_mgL sodium mgL 87396.1 carbonate mgL 0 calcium mgL 3103.09 bicarbonate mgL 611.765 iron\_mgL 3.405 sulfate\_mgL 3456.07 barium\_mgL 0.1135 hydroxide\_mgL

Remarks

magnesium mgL

potassium\_mgL

strontium\_mgL

manganese\_mgL

**VEOO** 

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

817.2

545.935

55.615

h2s mgL

co2\_mgL

o2\_mgL

anionre marks



79.45

### C-108 Item VII.5 - Produced Water Data

### Spur Energy Partners, LLC - Muskegon 16 State No.1 SWD

### **DISPOSAL ZONE**

CISCO Lab ID

**API No.** 300 1500 129 Sample ID 5353

Well Name SPRINGS SWD 001

Location ULSTR 04 21 S 25 E Lat/Long 32.52054 -104.39423

660 N 830 E County Eddy

Operator (when sampled)

Field SEVEN RIVERS HILLS Unit 1

Sample Date Analysis Date

Sample Source SWAB Depth (if known)

WaterType

ph alkalinity\_as\_caco3\_mgL

ph\_temp\_F hardness\_as\_caco3\_mgL

specificgravity hardness\_mgL

specificgravity temp F resistivity ohm cm

tds\_mgL 31485 resistivity\_ohm\_cm\_temp\_

tds\_mgL\_180C conductivity

chloride\_mgL 17000 conductivity\_temp\_F

sodium\_mgL carbonate\_mgL

calcium\_mgL bicarbonate\_mgL

iron\_mgL sulfate\_mgL 2500

barium\_mgL hydroxide\_mgL

magnesium\_mgL h2s\_mgL co2\_mgL

strontium\_mgL o2\_mgL

manganese\_mgL anionremarks

Remarks

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



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e-Permitting

C-108 Submittal

**Attachment Category** 

Seismicity Analysis

For High Volume Devonian Wells