

**Muskegeon 16 State Com #1**

Eddy County, NM

API# 30-015-27108

SPUD DATE: 10/4/1992

ELEV: 3,600' GL 12' KB

**13-3/8" 48#/54.5# H-40/J-55 Csg @ 440'**

17-1/2" HOLE

CMT W/ 500 SX

CIRC TO SURF

**9-5/8" 40# J-55 Csg @ 2,650'**

12-1/4" HOLE

CMT W/ 1100 SX

CIRC TO SURF

**TUBING DETAIL**

12' KB

1 JT 3-1/2" POLYCORE 9.3# L-80 8RD 32.6'

4 SUBS 3-1/2" POLYCORE 9.3# L-80 8RD 27'

176 JTS 3-1/2" POLYCORE 9.3# L-80 8RD 5744.2'

92 JTS 3-1/2" MODIFIED POLYCORE 9.3# L-80 8RD 3019.1'

3-1/2" x 2-7/8" 316 SS XO

O/O TOOL NP W/ 2.31F NIPPLE

5.5" x 2-7/8" NP AS1X PACKER @ +/- 8,845'

NP 2-7/8" PUP 10'

316SS 2.25" RN NIPPLE

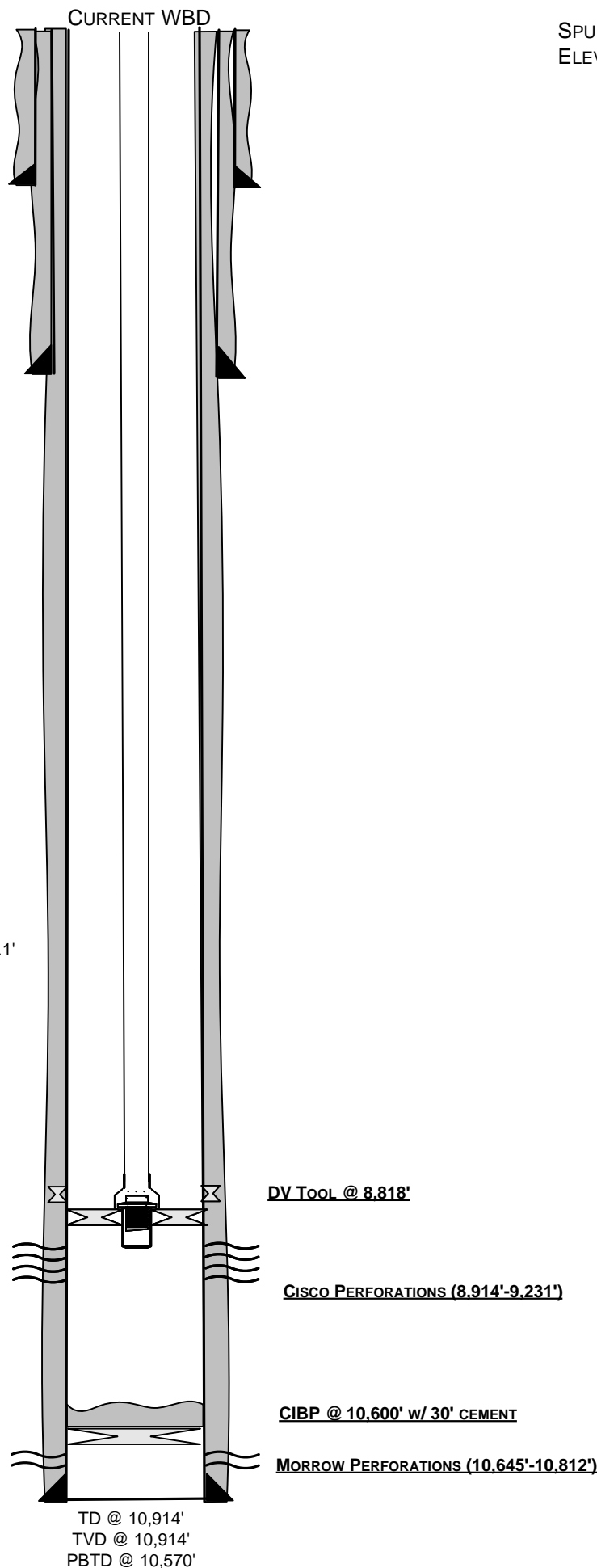
POP WLREG

**5.5" 17# K-55 Csg @ 0'- 4,236'****5.5" 15.5# J-55 Csg @ 4,236'-10,915'**

8-3/4" HOLE

CMT STG 1 W/ 730 SX

CMT STG 2 W/ 1870 SX, CIRC 108 SX TO SURFACE



Santa Fe Main Office  
Phone: (505) 476-3441  
General Information  
Phone: (505) 629-6116

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

Online Phone Directory Visit:  
<https://www.emnrd.nm.gov/ocd/contact-us/>

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> SWD		WELL API NO. 30-015-27108 5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> 6. State Oil & Gas Lease No.
2. Name of Operator SPUR ENERGY PARTNERS LLC		7. Lease Name or Unit Agreement Name MUSKEGON 16 STATE COM
3. Address of Operator 9655 KATY FREEWAY, SUITE 500, HOUSTON, TX 77024		8. Well Number 1
4. Well Location Unit Letter <u>N</u> : <u>660</u> feet from the <u>SOUTH</u> line and <u>1980</u> feet from the <u>WEST</u> line Section <u>16</u> Township <u>17S</u> Range <u>29E</u> NMPM <u>EDDY</u> County		9. OGRID Number 328947
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3588'		10. Pool name or Wildcat SWD; CISCO

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b> PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input checked="" type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: <input type="checkbox"/>		<b>SUBSEQUENT REPORT OF:</b> REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/>	
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13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Spur Energy Partners LLC requests to perform a step rate test to determine if injection pressure can be raised without fracturing the formation.

Please find the proposed procedure and other documentation for your review.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Sarah Chapman TITLE REGULATORY DIRECTOR DATE 09/15/2025

Type or print name SARAH CHAPMAN E-mail address: SCHAPMAN@SPURENERGY.COM PHONE: 832-930-8613  
**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 Conditions of Approval (if any): \_\_\_\_\_

**Muskegon 16 State Com #1****Step Rate Test**

Hunter Spragg - 817.914.0987

AFE - XTBD

NW Shelf  
Eddy County, NM**OBJECTIVES**

Perform a step rate test on the Muskegon State Com #1 to determine if injection pressure and rate can be raised without fracturing the formation. 45-minute steps chosen due to lower permeability but a large perforated interval of 317'. Also, stabilization has been seen within 30 minutes in the SRTs that have been performed on offset wells with similar interval lengths and permeability.

- Estimated Frac tank set and fill - 11/1/2025
- Estimated BHP Bomb set date - 11/2/2025
- Estimated Well SI date - 11/4/2024
- Estimated SRT date -11/6/2025
- Estimated Pressure Bomb retrieval date - 11/7/2025

Well Information	
Surface Location (NAD83)	Latitude: 32.829174° / Longitude: -104.081955°
Ground Elevation / KB	3,600' / 12'
API Number	30-015-27108
AFE Number	XTBD - \$TBD

Wellbore Details	
TVD / PBTD	TVD: 10,914' / PBTD: 10,570'
Perforations MD'	8,914' - 9,231'

Casing & Tubing Details - Current/Planned										
Size	Depth (MD)	Weight lb/ft	Grade	ID In	Drift In	Thread	Burst psi	Collapse psi	Yield Mlbs	Cap bbl/ft
5.5" csg	0' - 4,236'	17.0	K-55	4.892	4.767		5,320	4,910	247	.0232
5.5" csg	4,236' - 10,914'	15.5	J-55	4.950	4.825		4,800	4,040	222	.0238
3.5" std Polycore tbg	0' - 5,803'	9.3	L-80	2.625	2.500	EUE 8RD	10,160	10,540	207	.0066
3.5" Mod Polycore tbg	5,803' - 8,845'	9.3	L-80	2.441	2.347	EUE 8RD	10,160	10,540	207	.0058

**PROCEDURE**

Spur Energy Partners LLC is committed to providing a safe working environment for all personnel. A safety meeting will be held prior to commencing each operation in order to define/clarify objectives, roles and responsibilities, identify all potential risk/hazards and establish a work procedure that is safe and environmentally sound. Meetings are to be documented on the reports returned to Spur Energy Partners LLC.

**PERFORM SAFETY CHECKS AND SAFETY MEETING**

1. Perform a safety meeting prior to rigging up ANY equipment on location. Discuss the job procedure and objective with all personnel on location. Document the safety meeting on the daily report sent to Spur. Make note of all potential risks/hazards, and clearly identify an emergency route and emergency vehicle. Also make note of any new or inexperienced personnel on location. Ensure proper Personal Protective Equipment (PPE) is used during the job. Minimums are hard hats, steel toes, safety glasses, H<sub>2</sub>S monitors, and FR certified clothing as required. Designate a smoking area off location and 100' from any potential hydrocarbons.

**Preparation**

1. Set 4 - 500 bbl Frac tanks on location and begin filling with produced water from the facility. Do not use fresh water or produced water from any of the other surrounding facilities. Fill completely. Leave hoses attached to water tanks at the facility so water in water tanks can be utilized at the end of the test if needed.
2. If needed, replace all wellhead valves with 5k rated valves.

**72 hours before SRT**

3. Notify OCD representative that SRT is planned to occur in 72 hours.
4. Notify OCD that a MIT will be ran with the pump truck and recorded in the data van on the date of the SRT. Ask if a chart recorder is required, if so, ensure one is on location for the day of the SRT.
5. MIRU Precision Pressure Data Slickline truck and crane, utilize a lubricator for well control.
6. Run in hole with BHP Bomb and set at 8,845' from surface on top of the 2.31F profile nipple.
  - a) Ensure bomb is rated to 10k psi or greater and can collect 1 million data points and is set to collect data 1 time every second. This will give us 11.5 days of data collection in case we occur any delays.

**48 hours before SRT**

7. Shut in well and isolate injection line. Ensure 0 injection is able to occur.
8. Remove injection line and configure wellhead so 1502 iron can be tied on.

**Step Rate Test Procedure**

9. RU pump and manifold all 4 frac tanks together. Run 1 - 2" injection lines (unless 2 lines are recommended by pump company).
  - a) RU an injection line and pressure transmitter to the production casing-tubing annulus and pressure up to 500 psi and preform an MIT.
    - i. Have the service company save and export this data, call this file "Muskegon SWD MIT prior to SRT" and clear the data and prepare for SRT data collection.
  - b) Ensure pumps can pump can output 10 bpm at 5000 psi.
  - c) Max pressure limit for this job is 4500 psi.
  - d) Install pressure transmitters on the tubing, not the discharge of the pump, and another transmitter on the production casing.
  - e) A turbine meter is to be used to measure injection rate.
  - f) Rig injection line up to the tubing.
10. Close bottom master valve and open all other valves and test Iron and wellhead to 5000 psi.

11. Open lower master valve and begin step rate test. Follow the below schedule exactly. Do not stop injection. Do not alter schedule. Steps need to be exactly at prescribed rates and for exactly 45 minutes unless:

- a) Breakdown is observed and 2 more steps passed that are not in the schedule.
  - i. If this is the case and there is pressure headroom, we will divide the remaining pressure rating of the wellhead by number of remaining steps needed to get to 3 and add 1 and target a starting pressure for those remaining step instead of rate.
    1. I.e. Stage 6 break is observed at 2500 psi and wellhead is rated to 3000 psi.  $3000-2500 = 500$  psi. 2 more stages needed, add one.  $500/3 = 166$  psi. Stage 7 should be started at 2666 psi and stage 8 started at the end of stage 7 pressure plus 166 psi. Rate is to be held steady through the remainder of the stage. Stage length is to be the same as the previous stages.
  - ii. If there is no more pressure headroom available, hold the rate steady for the amount of time equivalent to running the needed number of extra stages add notes in stage notes.
    1. I.e. if breakdown is observed on stage 6, and the ending pressure of stage 6 is 2950 psi and job is rated to 3000 psi, keep the same rate of stage 6 for stage 7 and 8.

Step Rate Test - Proposed					
Step	Time Start (mins)	Time End (mins)	Rate (BPM)	Stage Volume (Bbl)	Cumulative Volume (Bbl)
1	0	45	0.50	23	23
2	45	90	1.00	45	68
3	90	135	2.00	90	158
4	135	180	4.00	180	338
5	180	225	6.00	270	608
6	225	270	8.00	360	968
7	270	315	10.00	450	1418

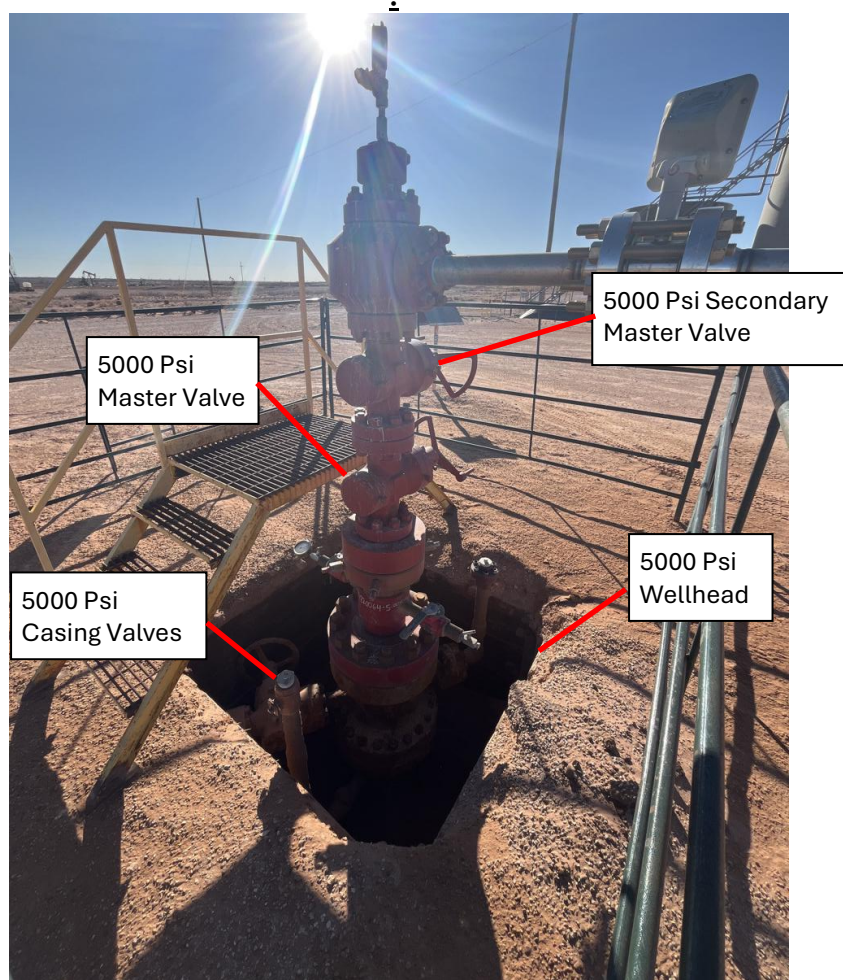
12. RD pump and iron.

13. MIRU Slickline unit and crane if required.

14. RIH to 8,845' to retrieve the BHP Bomb. Send all data to Engineer.

AppendixCurrent Tubing DetailTUBING DETAIL

12' KB  
1 JT 3-½" POLYCORE 9.3# L-80 8RD 32.6'  
4 SUBS 3-½" POLYCORE 9.3# L-80 8RD 27'  
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O/O TOOL NP W/ 2.31F NIPPLE  
5.5" x 2-7/8" NP AS1X PACKER @ +/- 8,845'  
NP 2-7/8" PUP 10'  
316SS 2.25" RN NIPPLE  
POP WLREG

Wellhead



Master Valve Tags



Casing Valve Tags



Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico

Energy, Minerals and Natural Resources

Oil Conservation Division

1220 S. St Francis Dr.

Santa Fe, NM 87505

CONDITIONS

Action 505908

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 505908
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
anthony.harris	Submit C-103 Subsequent report summarizing the Step-Rate test results and include diagnostic plots to illustrate the inflection point (if applicable) where frac initiation occurred. Summary report must include both surface and bottomhole gauge data. The report should also include a summary of any on-site calibration(s) performed on the turbine flow meter to demonstrate that flow rate(s) and volume(s) measured by the meter correspond with actual pump rate and cumulative volumes pumped.	11/7/2025