

Office	riate District: 28 AM	State of New Me	exico		Form C-103 ²
District I - (575) 393-6161		Minerals and Natu	ıral Resources		Revised July 18, 2013
1625 N. French Dr., Hobbs District II – (575) 748-128:	2			WELL API NO. 30-01	5-29569
811 S. First St., Artesia, NI	M 88210 OIL CO	ONSERVATION		5. Indicate Type of Lea	se
<u>District III</u> – (505) 334-617 1000 Rio Brazos Rd., Azte	78 12 c, NM 87410	20 South St. Fran	STATE 🔀	FEE	
<u>District IV</u> – (505) 476-346 1220 S. St. Francis Dr., San 87505		Santa Fe, NM 8 ^o	/303	6. State Oil & Gas Leas	se No.
	NDRY NOTICES AND REI	PORTS ON WELLS	<u> </u>	7. Lease Name or Unit	Agreement Name
DIFFERENT RESERVOI	M FOR PROPOSALS TO DRILL OR. USE "APPLICATION FOR PER			AID STATE 1	4
PROPOSALS.) 1. Type of Well: Oil	Well Gas Well X	Other SWD		8. Well Number 1	
2. Name of Operator	SPUR ENERGY PARTI			9. OGRID Number	328947
3. Address of Operat	or	10. Pool name or Wildo	cat		
	FREEWAY, SUITE 500	, HOUSTON, TX	77024	SWD; CISCO)
4. Well Location					
Unit Letter_		from the SOU			
Section			ange 28E	NMPM EDDY Cou	nty
	11. Elevation	(Show whether DR 3637'		.)	
		0001	<u> </u>		
1	2. Check Appropriate I	Box to Indicate N	lature of Notice,	Report or Other Data	
NOT	ICE OF INTENTION 7	ГО:	SUE	SEQUENT REPOR	T OF:
PERFORM REMEDIA			REMEDIAL WOR		RING CASING
TEMPORARILY ABAI	 -	—		ILLING OPNS. P AN	D A 📗
PULL OR ALTER CAS DOWNHOLE COMMI		OMPL	CASING/CEMEN	II JOB 📙	
CLOSED-LOOP SYS	_				
OTHER:	-		OTHER:		
of starting any	osed or completed operation proposed work). SEE RUL pletion or recompletion.				
	gy Partners LLC requests	to perform a ste	n rate test to dete	ermine if injection press	sure can be raised
	cturing the formation.	to periorii a ste	prate test to det	ornine if injection press	die dan be raised
Proposed _l	procedure and all other d	ocuemtation is at	tached for your ι	ise.	
Thank you	_				
	•				
Spud Date:		Rig Release Da	ate:		
Therefore and for the 4 the	:f	. d 1 . 4 . 4 . 4 . 1 . 1 .	11-	4 b -1:-f	
Thereby certify that the	e information above is true ar	id complete to the b	est of my knowledg	ge and benef.	
CICNATUDE S.	a h Channa	TITLE REC	GULATORY DIRI	FCTOR DATE	08/17/2022
SIGNATURE Sa	erah Chapman	IIILE_NEC	JOLATONI DINI	ECTOR DATE_	00/11/2022
Type or print name <u>S</u>	ARAH CHAPMAN	E-mail addres	s: <u>\$CHAPMAN@SPU</u>	RENERGY.COM PHONE:	832-930-8613
For State Use Only					
APPROVED BY: MA	illion Gebremiche	rel TITLE	Petroleum Specia	alist A DATE	09/27/2022
Conditions of Approva	l (if any):		·		

Aid State 14 #1

Step Rate Test

Hunter Spragg - 817.914.0987

AFE - TBD



OBJECTIVES

Perform a step rate test on the Aid State SWD to determine if injection pressure can be raised without fracturing the formation. 60-minute steps chosen due to lower permeability and an open hole interval larger than 500'.

- Estimated BHP Bomb set date 8/15/2022
- Estimated Well SI date 8/16/2022
- Estimated SRT and Pressure Bomb retrieval date 8/18/2022 (minimum of 48 hours after well is shut in)

Well Information					
Surface Location (NAD83)	Latitude: 32.8300247° / Longitude: -104.1427078°				
Ground Elevation / KB	3,637' / 19'				
API Number	30-015-29569				
AFE Number	TBD				

Wellbore Details				
TVD / PBTD	TVD: 10,540' / PBTD: 8,830'			
Perforations MD'	OH from 8,304' - 8,831'			

Casing & Tubing Details - Current/Planned										
Depth		Weight	Grade	ID	Drift	Thread	Burst	Collapse	Yield	Сар
Size	(MD)	lb/ft	Grade	In	In	IIIIeau	psi	psi	Mlbs	bbl/ft
5.500" csg	0' - 8,304'	17.0	J-55	4.892	4.767	STC	5,320	4,910	234	0.023
2.875" IPC tbg	0' - 8,213'	6.5	L-80	2.411	2.317	EUE 8RD	10,570	11,160	144	0.00579

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, H₂S 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. 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. Ensure well is on a vacuum; MIRU Precision Pressure Data Slickline truck and crane, utilize a pack-off for well control.
- 6. Run in hole with BHP Bomb and set at 8,215' from surface on top of the F 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.

Step Rate Test Procedure

- 8. RU pump and manifold all 4 frac tanks together. Run 2 2" injection lines.
 - 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 "Aid State 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 5000 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 both injection lines up to the tubing.
- 9. Close bottom master valve and open all other valves and test Iron and wellhead to 5000 psi.
- 10. 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 60 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 wellhead is rated to 3000 psi, keep the same rate of stage 6 for stage 7 and 8.

	Step Rate Test							
Step	Time Start (mins)	Time End (mins)	Rate (BPM)	Stage Volume (Bbl)	Cumulative Volume (Bbl)			
1	0	60	0.45	27	27			
2	60	120	0.90	54	81			
3	120	180	1.80	108	189			
4	180	240	3.60	216	405			
5	240	300	5.40	324	729			
6	300	360	7.20	432	1161			
7	360	420	9.00	540	1701			

- 11. RD pump and iron.
- 12. MIRU Slickline unit and crane if required.
- 13. RIH to 8,215' to retrieve the BHP Bomb. Send all data to Engineer.

Appendix

Current Tubing Detail

Tubing Description Tubing - Production					Set Depth (ftKB) 8,233.4		2/23/2022		
Item Des	Grade	Wt (lb/ft)	OD (in)	ID (in)	Len (ft)	Jts	Cum Len (ft)	Top (ftKB)	Btm (ftKB)
Depth Correction					19.00		8,233.43	0.0	19.0
IPC Tubing	J-55	6.40	2 7/8		8,193.91	250	8,214.43	19.0	8,212.9
On-Off Tool, 5 1/2" x 2 7/8" nickel plated w/ 1.875" F SS profile					1.84		20.52	8,212.9	8,214.7
Packer, 5 1/2" x 2 7/8" ASX double grip w/ carbide slips					7.32		18.68	8,214.7	8,222.0
Tubing Sub, 2 7/8" x 10" nickel plated	L-80	6.40	2 7/8	2,44	9.98		11.36	8,222.0	8,232.0
Landing Nipple, 2 7/8" w/ 1.813" R SS			2 7/8		0.95		1,38	8,232.0	8,233.0
Wireline Guide, 2 7/8" w/ POP			2 7/8		0.43		0.43	8,233.0	8,233.4

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 Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 134896

CONDITIONS

Operator:	OGRID:
Spur Energy Partners LLC	328947
9655 Katy Freeway	Action Number:
Houston, TX 77024	134896
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	9/27/2022