

Initial IPI Application

07/06/2022

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

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & 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

Applicant: Mack Energy Corporation **OGRID Number:** 013837
Well Name: Round Tank SWD #1 **API:** 30-005-64095
Pool: SWD; Devonian **Pool Code:** 96101

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

1) TYPE OF APPLICATION: Check those which apply for [A]**A. Location - Spacing Unit - Simultaneous Dedication**

☐ NSL ☐ NSP(PROJECT AREA) ☐ NSP(PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]**[I] Commingling - Storage - Measurement**

☐ DHC ☐ CTB ☐ PLC ☒ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☐ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☐ Application requires published notice
 D. ☐ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☐ Surface owner
 G. ☐ For all of the above, proof of notification or publication is attached, and/or,
 H. ☒ No notice required

FOR OCD ONLY

☐ Notice Complete
☐ Application
 Content
 Complete

3) 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.

Jerry W. Sherrell

 Print or Type Name

 Signature

7/6/22

 Date

575-748-1288

 Phone Number

jerrys@mec.com

 e-mail Address



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

July 6 2022

Oil Conservation Division
Attn: Dean McClure
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Sir or Madam:

On June 10th of 2022 Mack Energy Corporation performed a NMOCD approved Step Rate Test with the intention of acquiring approval to increase our maximum allowable injection pressure. During our Step Rate Test on June 10th MEC performed a 10 step test starting at 1 BPM (increasing by .5 BPM each step – using produced water 1.098 SG) and finishing at 5.5 BPM. After shutting down an ISIP of 2,581 psi was recorded, which respectively gives a .72 psi/ft fracture gradient.

With the recorded results Mack Energy would like to propose the new maximum allowable injection pressure to be increased to 4,300 psi (or .41 psi/ft gradient) with an approximate injection rate of 5.5 bpm (7,900 bbls/day). Respectively under the current maximum injection pressure of 2,100 psi MEC is capable of injecting roughly 3,700 bbls.

Should you have any questions please contact me @ 575-748-1288.

Sincerely,

Cole A. Ponce
Operations Engineer
ColePonce@mec.com

CAP/

A handwritten signature in black ink, appearing to read "Cole A. Ponce", is written over the typed name and email address.

Enclosures
Well List

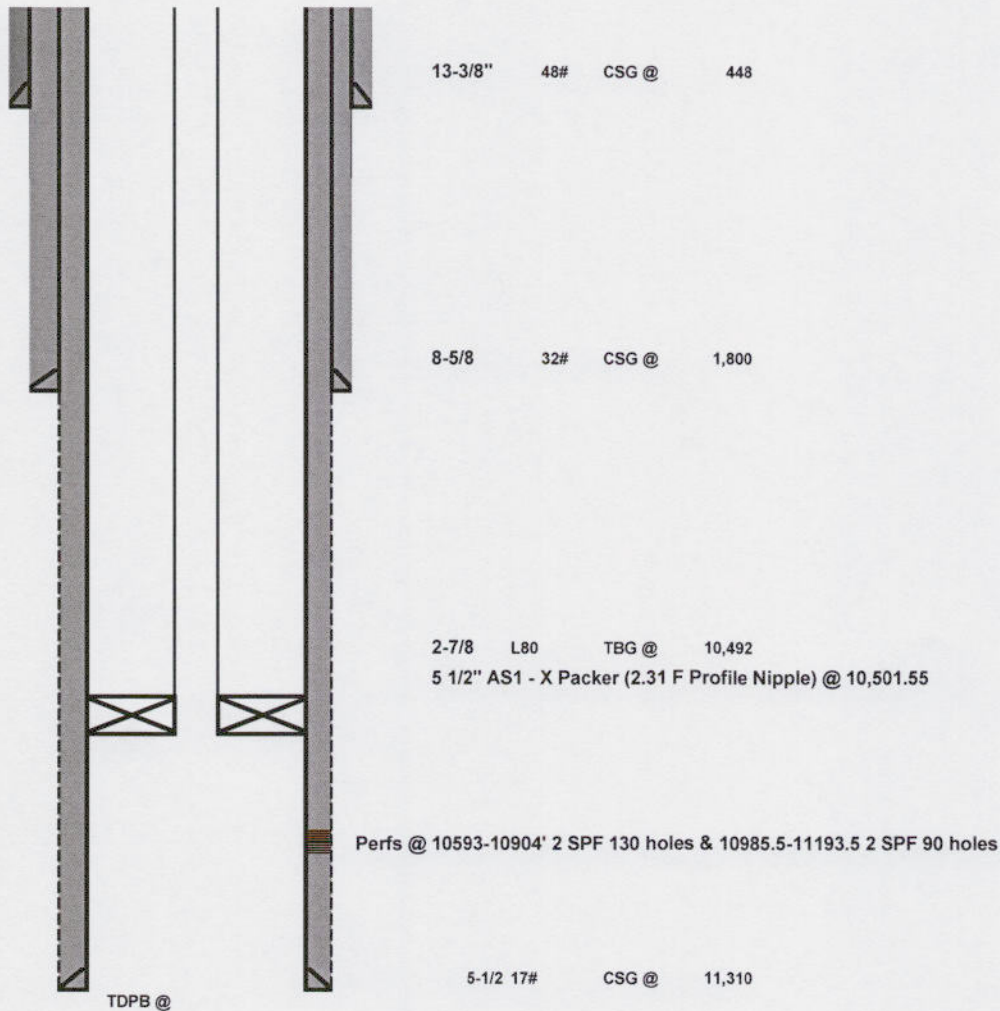
Round Tank SWD #1

30-005-64095

SWD; Devonian

Company			
Author:	Cole Ponce - MEC		
Well Name	Round Tank SWD		
Field/Pool		Well No.	#1
County	Chaves	API #:	30-005-64095
State	New Mexico	Location:	K-19-15S-29E
Spud Date	4/1/2009		1980 FSL 1980 FWL
		GL:	3735

Description	O.D.	Grade	Weight	Depth	Hole	Cmt Sx	TOC
Surface Csg	13-3/8"	H40	48#	448	17-1/2	795	Surf
Inter Csg	8-5/8	J55	32#	1,800	12-1/4	725	Surf
Prod Csg	5-1/2	HCL-80	17#	11,310	7-7/8	1,650	Surf
Prod Tbg	2-7/8	L80	6.5#	10,492			



South District—Artesia

State of New Mexico
Energy, Minerals and Natural Resources Department Oil
Conservation Division Artesia District Office

BRADENHEAD TEST REPORT

Operator Name Mack Energy Corporation	• API Number 30-005-64095
Property Name Round Tank SWD	Well No. 1

7. Surface Location

UL - Lot K	Section 19	Township 15S	Range 29E	Feet from 1980	N/S Line South	Feet From 1980	E/W Line West	County Chaves
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Well Status

TA'D well YES NO	SHUT-IN YES NO	INJECTOR INJ SWD	PRODUCER OIL GAS	DATE 6-7-22
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OBSERVED DATA

	(A) Surf-Interm.	(B) Interm. (1)	Interm. (2)	Prod Casing	(E) Tying
Pressure					0'
<u>Flow Characteristics</u>					
Puff	Y/N	Y/N	Y/N	(Y)/N	C02 _____
Steady Flow	Y/N	Y/N	Y/N	Y/N	WTR _____
Surges	Y/N	Y/N	Y/N	Y/N	GAS _____
Down to nothing	Y/N	Y/N	Y/N	Y/N	If applicable type
Gas or Oil	Y/N	Y/N	Y/N	Y/N	fluid injected for
Water	Y/N	Y/N	Y/N	Y/N	Waterflood

If Braden head flowed water, check the descriptions that apply:

<input checked="" type="checkbox"/> CLEAR	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULFUR	<input type="checkbox"/> BLACK
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Remarks: Please state for each string (A, B, C, D, E) pertinent information regarding bleed down or continuous build up if applies.

Test Good

Signature: <i>Danny Smolik</i>	OIL CONSERVATION DIVISION
Printed name: Danny Smolik	Entered RBDMS
Title: Compliance Office	Re-test
E-mail Address: danny.smolik@state.nm.us	
Date: 6-7-22	Phone: 575-626-0836
Witness:	

SCANNED

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
District IV
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 118002

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110980	OGRID: 13837
	Action Number: 118002
	Action Type: [UF-BHT] Bradenhead Test (BRADENHEAD TEST)

CONDITIONS

Created By	Condition	Condition Date
kfortner	None	6/16/2022

CPS Treatment Report

page 1

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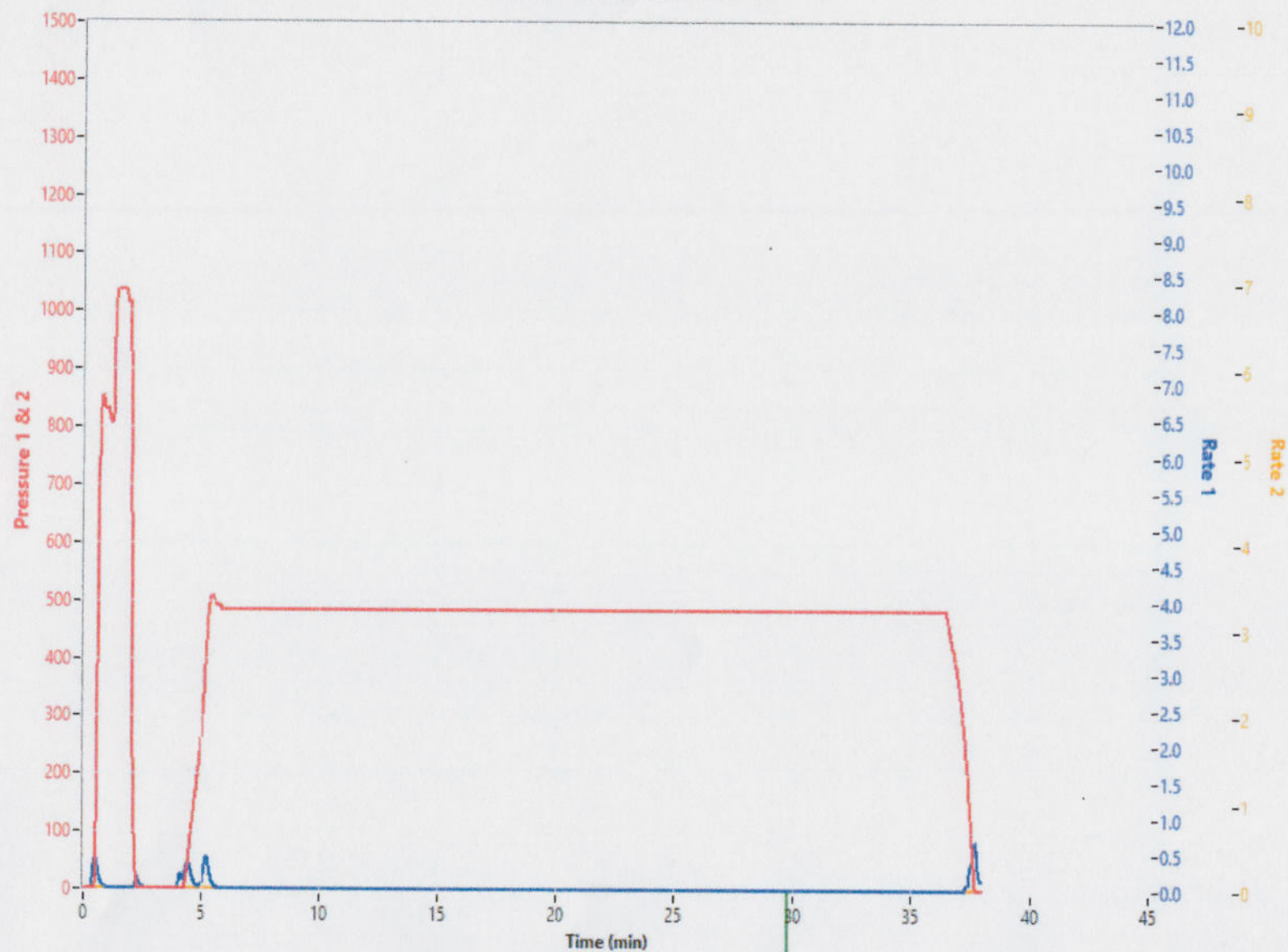
MACK ENERGY (MIT TEST)

ROUND TANK SWD

1 Stage 1


6/9/2022

Surface Conditions Chart



CPS Treatment Report

page 1

Customer: MACK ENERGY		ESO#: RIRZCF8A9F			
Well Name & No.:	ROUND TANK SWD # 1	Formation:			
County:	CHAVEZ	Date: June 10, 2022			
State:	NEW MEXICO	Well type: Oil / Old / Stim.			
Customer Information					
Address:	P.O. BOX 960				
City, State:	ARTESIA, NM				
Zip Code:	88211				
Customer Representative:					
Remarks					
		Arrive on Location: 7:00 AM			
		Depart Location: 3:00 PM			
		Total Hours: 8.00			
	O.D	Weight	I.D	Volume	Bbls/linear ft.
Tubing 1 length ft.:	10,501	2 7/8	6.5	2.441	60.78 BBLS.
Tubing 2 length ft.:					0.00 BBLS.
Casing 1 length ft.:		2 7/8	17	4.892	0.00 BBLS.
Casing 2 length ft.:					0.00 BBLS.
Open Hole length ft.:		N/A	N/A		0.00 BBLS.
Combined Depth ft.:					0.00 BBLS.
				Annular Vol.:	0.01522
#					
Depth		Vol.			
Top Perf/Open Hole:			Maximum Pressure:		ISIP: 2,581
Bottom Perf/Open Hole:			Average Pressure:		5 min: 2,120
Number of Perfs:			Maximum Rate:		10 min: 1,797
Perf Size:	in.		Average Rate:		15 min: 1,544
Packer Depth:	ft.		Fluid to Recover:		Proppant Total:
Time	Pressure 1	Rate	Stage	Total	Comments
7:41:00 AM	0	0.0	0.0	0.0	SAFETY MEETING
7:49:00 AM	5046	0.0	0.0	0.0	PRESSURE TESTED LINES
7:53:00 AM	4120	0.0	0.0	0.0	PRESSURE TEST WIRELINE
STEP RATE TEST					
8:47:07 AM	0	1468	1.0	3.0	STEP 1 1BPM FOR 30 MIN
9:28:29 AM	115	1317	1.0	40.0	RATE & PSI CHECK
9:31:05 AM	138	1317	1.0	2.0	RATE & PSI CHECK
9:40:15 AM	392	1273	1.5	11.0	STEP 2 1.5 BPM FOR 30 MIN
9:50:20 AM	576	1230	1.5	15.0	RATE & PSI CHECK
10:02:00 AM	714	1209	1.5	19.0	RATE & PSI CHECK
10:10:14 AM	760	1187	1.5	12.0	RATE & PSI CHECK
10:30:44 AM	829	1144	1.5	30.0	RATE & PSI CHECK
10:30:47 AM	945	1144	2.0	3.0	STEP 3 2 BPM FOR 30 MIN
10:40:52 AM	1083	1122	2.0	19.0	RATE & PSI CHECK
10:51:09 AM	1152	1101	2.0	20.0	RATE & PSI CHECK
11:00:12 AM	1198	1101	2.0	19.0	RATE & PSI CHECK
11:02:36 AM	1336	1101	2.5	5.0	STEP 4 2.5 BPM FOR 30 MIN
11:13:05 AM	1498	1101	2.5	26.0	RATE & PSI CHECK
11:23:09 AM	1567	1079	2.5	25.0	RATE & PSI CHECK
11:32:20 AM	1590	1079	2.5	23.0	RATE & PSI CHECK
11:34:41 AM	2028	1101	3.0	5.0	STEP 5 3 BPM FOR 30 MIN
11:44:53 AM	2221	1101	3.0	32.0	RATE & PSI CHECK
11:54:43 AM	2373	1122	3.0	31.0	RATE & PSI CHECK
12:04:30 PM	2373	1122	3.0	30.0	RATE & PSI CHECK
12:05:24 PM	2535	1122	3.5	3.0	STEP 6 3.5 BPM FOR 30 MIN
12:15:35 PM	2627	1144	3.5	36.0	RATE & PSI CHECK
12:25:28 PM	2673	1144	3.5	34.0	RATE & PSI CHECK
12:35:11 PM	2696	1144	3.5	33.0	RATE & PSI CHECK
12:36:54 PM	2949	1165	4.0	5.0	STEP 7 4 BPM 30 MIN
12:47:02 PM	3111	1187	4.0	41.0	RATE & PSI CHECK

eso#
RIRZCF8A9F
Page 2

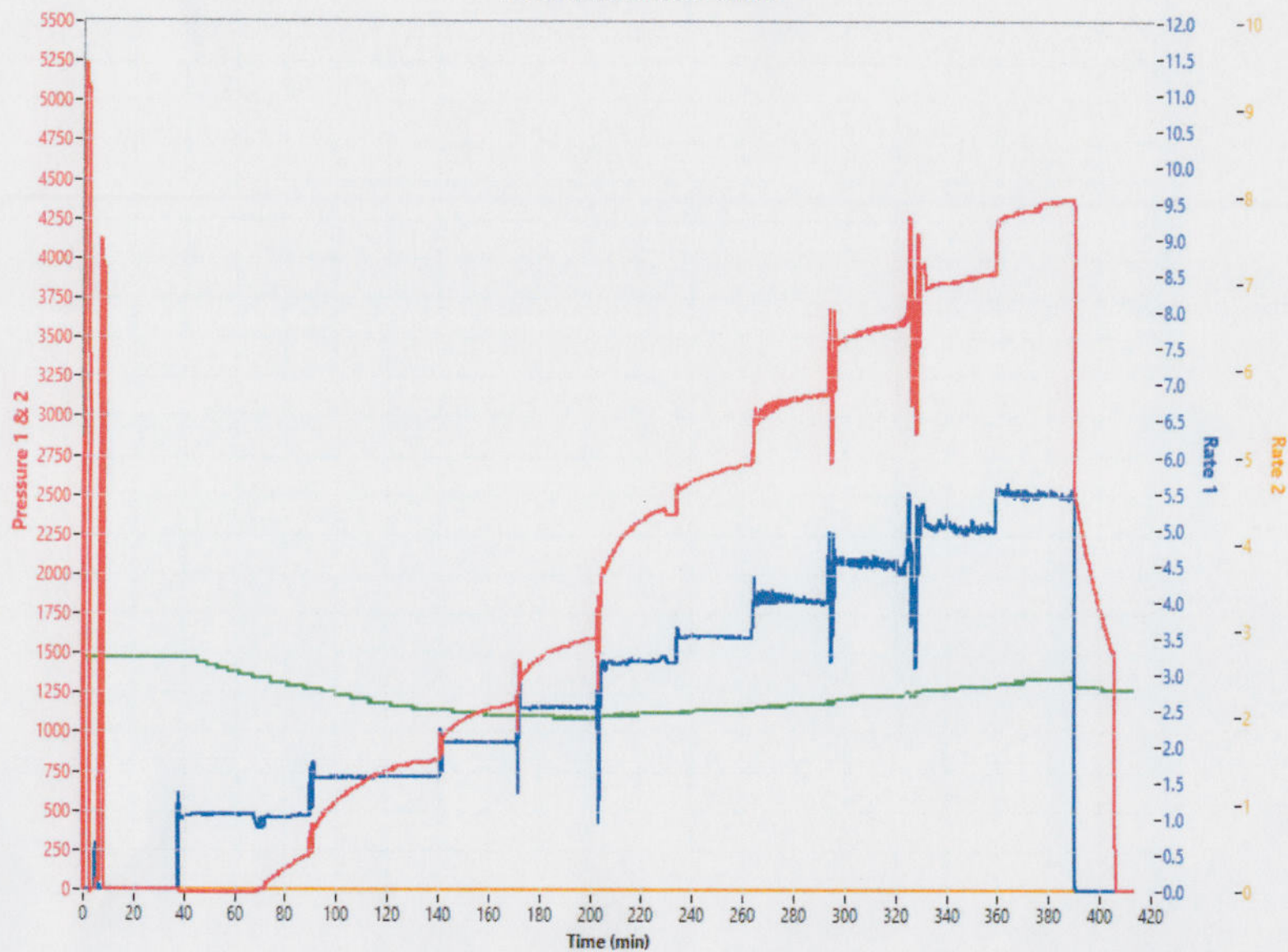
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MACK ENERGY (STEP RATE TEST)

ROUND TANK SWD # 1 Stage 1

6/10/2022

Surface Conditions Chart

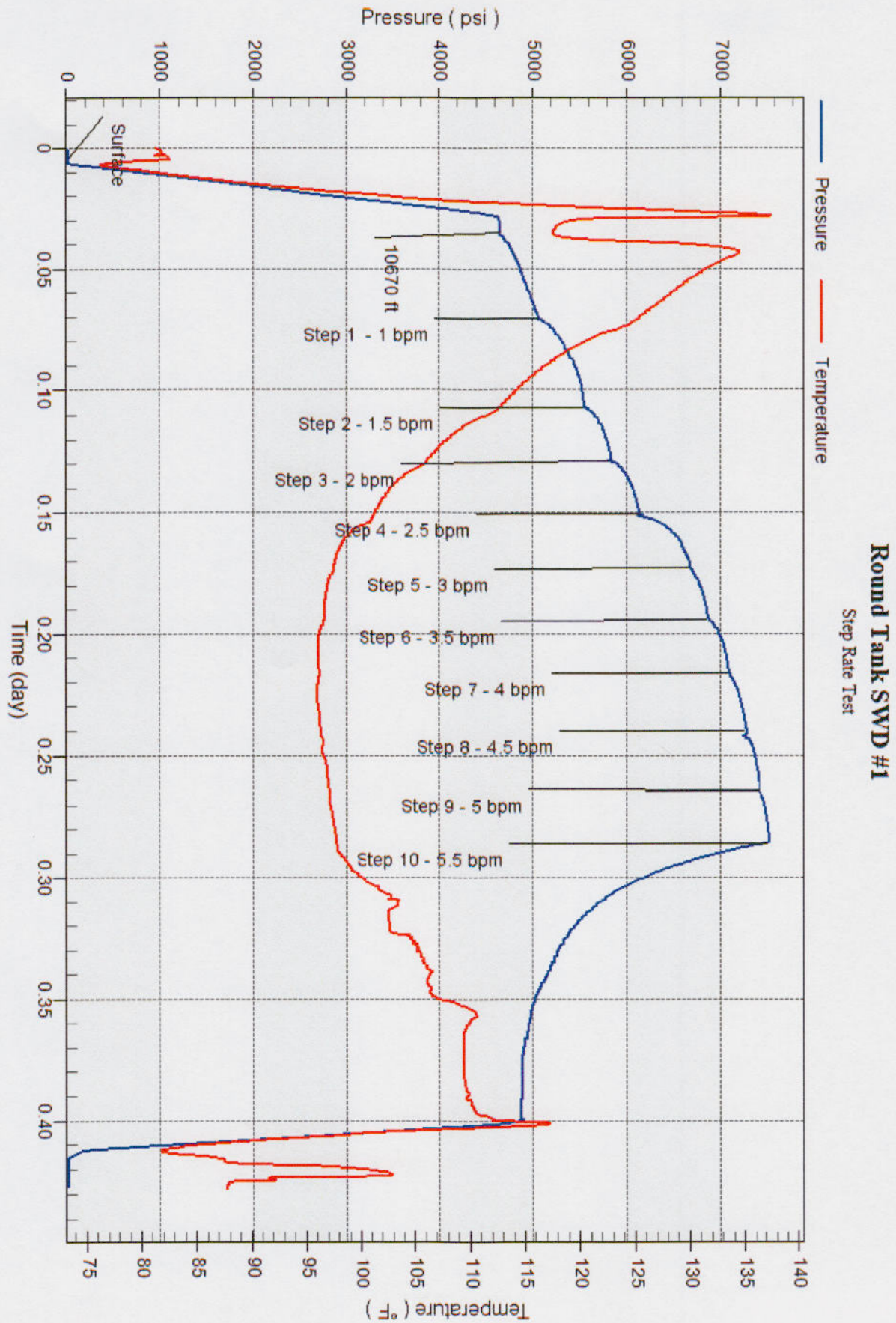




Round Tank SWD #1
June 10, 2022

JOB INFORMATION SHEET

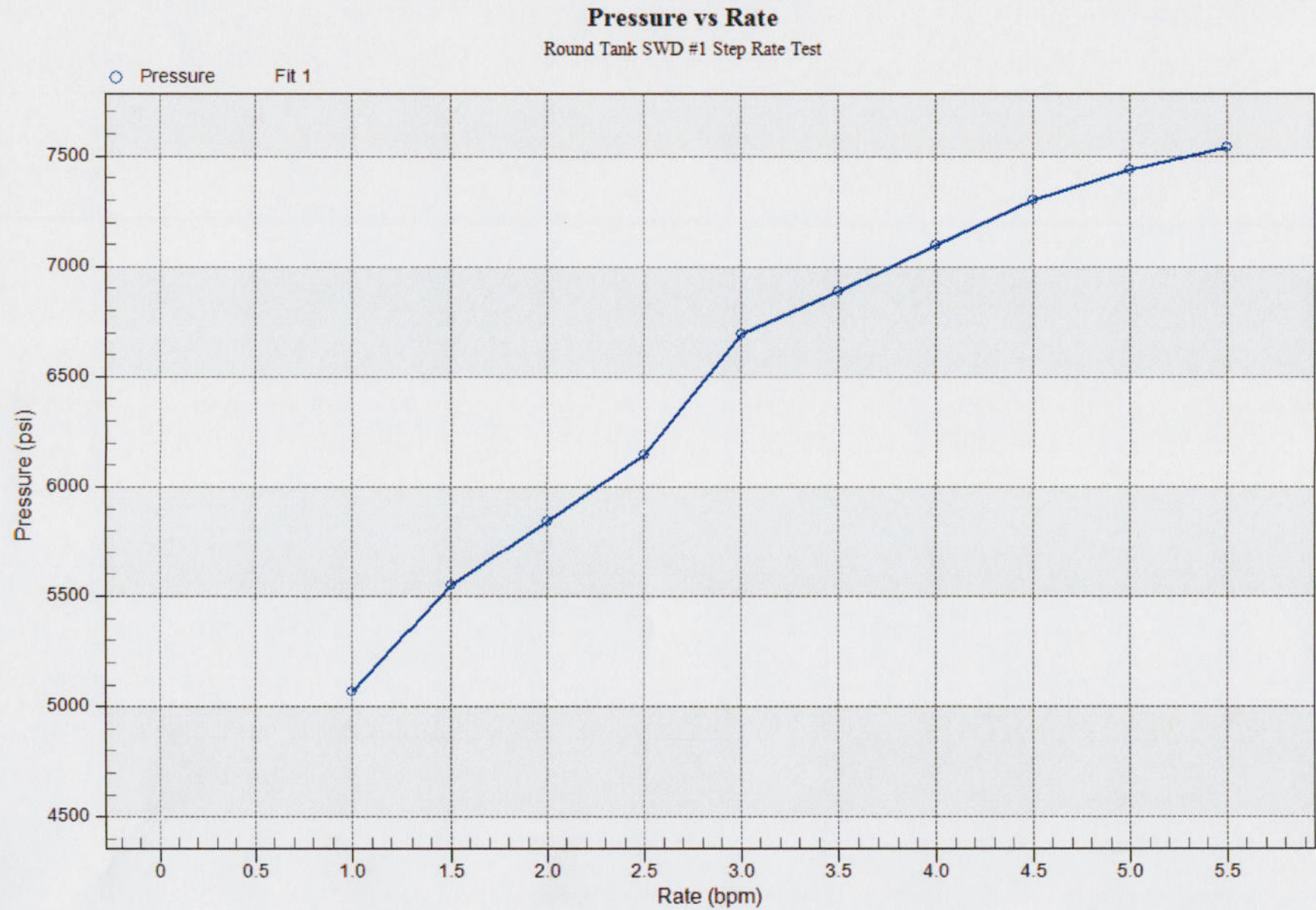
Company Information		
Company Name:	Mack Energy Corp.	
Well Information		
Well Name:	Round Table SWD #1	
Location:	Chavez County, NM	
Field – Pool:	Round Table SWD	
Status:	Disposal Well	
Test Information		
Type of Test:	Step Rate Test	
Gauge Depth:	10670 ft	
Temperature @ Run Depth	137.42 degF	
Surface Temperature:	73.9 degF	
Gauge Information		
	Top Recorder	Bottom Recorder
Serial Number:	81287	
Calibration Date:	3/21/22	
Pressure Range:	10000 psi	
Comments		
Step Rate Test Set at 10,670ft Step Rate Test for 10 Steps *Tools were stuck coming out of well. Worked free and came out		



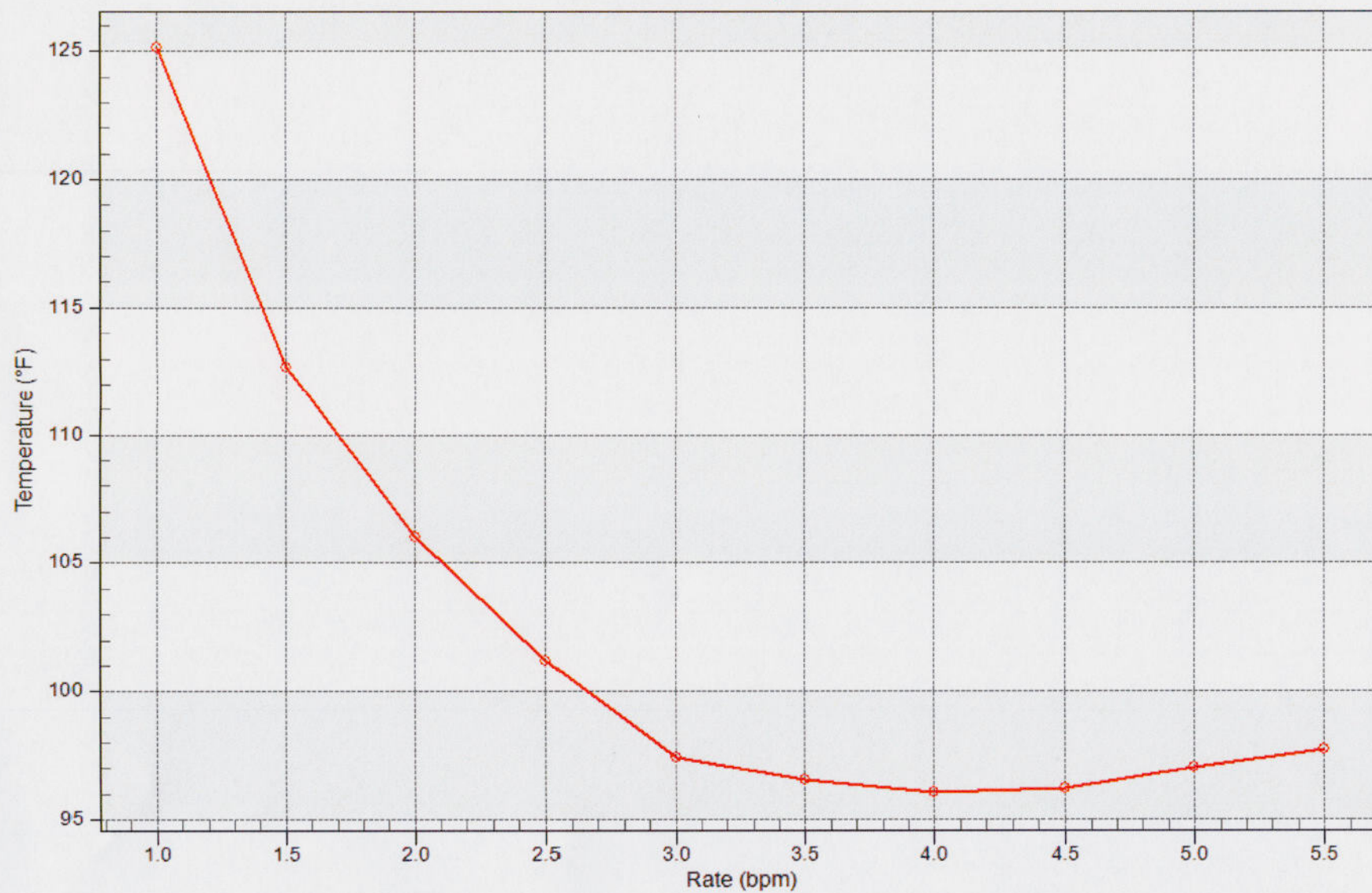
Pressure and Temperature Report

Round Tank SWD #1 Step Rate Test

Rate bpm	Pressure psi	Temperature degF
Step 1 - 1.00	5065.60	125.11
Step 2 - 1.50	5550.22	112.63
Step 3 - 2.00	5846.45	106.01
Step 4 - 2.50	6146.04	101.15
Step 5 - 3.00	6690.54	97.42
Step 6 - 3.50	6887.23	96.50
Step 7 - 4.00	7094.73	96.05
Step 8 - 4.50	7301.50	96.20
Step 9 - 5.00	7437.62	97.00
Step 10 - 5.50	7537.34	97.71

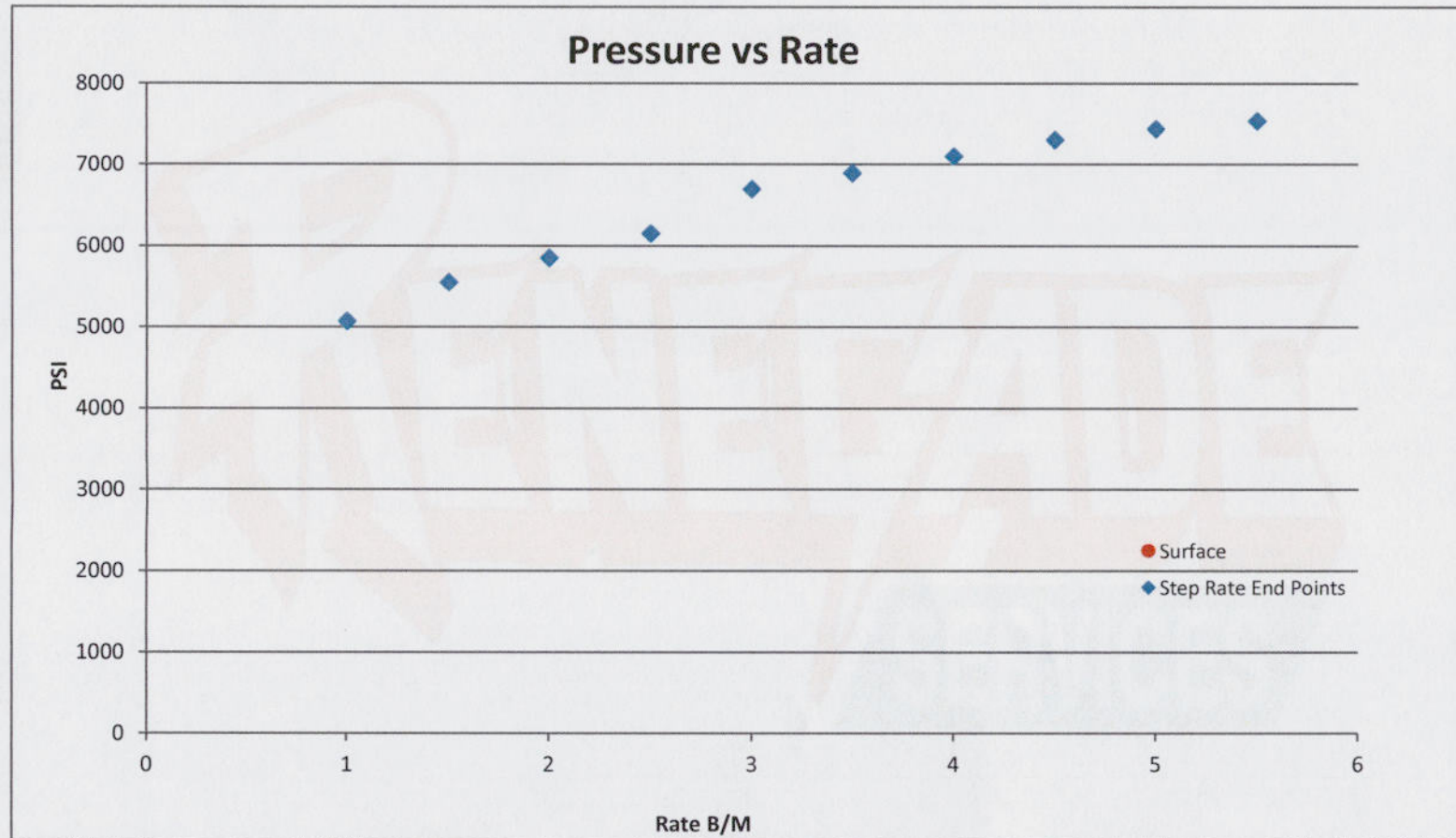


Temperature vs. Rate
Round Tank SWD #1 Step Rate Test





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MAR 11 2009

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Rease Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



Administrative Order SWD-1163

March 9, 2009

Jerry W. Sherrell
Mack Energy Corp
PO Box 960
Artesia, NM 88211-0960

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Rule 26.8B., Mack Energy Corp seeks an administrative order to utilize its Roundtank SWD Well No. 1 (API 30-005-64095) located 1980 feet from the South line and 1980 feet from the West line, Unit K of Section 19, Township 15 South, Range 29 East, NMPM, Chaves County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 26.8B. Satisfactory information has been provided that affected parties as defined in Rule 26.8B.(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 26.8 will be met and the operator is in compliance with Division Rule 5.9.

IT IS THEREFORE ORDERED THAT:

The applicant Mack Energy Corp, is hereby authorized to utilize its Roundtank SWD Well No. 1 (API 30-005-64095) located 1980 feet from the South line and 1980 feet from the West line, Unit K of Section 19, Township 15 South, Range 29 East, NMPM, Chaves County, New Mexico, for disposal of produced water into the Devonian formation from approximately 10500 feet to 11200 feet through 2-7/8 inch or smaller diameter, plastic-lined tubing set within 100 feet of the disposal interval.

As preparation and prior to commencing disposal, the operator shall perform the following work on the subject well:

- 1) Unless hole-conditions prevent this, run openhole resistivity and porosity logs from total depth to surface and supply copies of these electric logs to the Division (send to Hobbs district for scanning).
- 2) Send a copy of a mudlog with plots of lithology, drilltimes, and any hydrocarbon

Oil Conservation Division * 1220 South St. Francis Drive
* Santa Fe, New Mexico 87506

* Phone: (505) 476-3440 * Fax (505) 476-3462* <http://www.emnrd.state.nm.us>



Administrative Order SWD-1163
Mack Energy Corp
March 9, 2009
Page 2 of 3

- shows through this Devonian interval - OR
- 3) If a mudlog is NOT available, perforate and swab test the new perforations for hydrocarbon potential and catch a water sample for analysis. The Division's district office shall be noticed prior to this test and given the opportunity to witness the swab test. The results of the swab test and water analysis shall be sent to the Division attached to a sundry notice.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the proposed disposal interval and is not permitted to escape to other formations or onto the surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to no more than 2100 psi. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district II office in Artesia of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district II office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 26.13 and 7.24.

Without limitation on the duties of the operator as provided in Division Rules 30 and 29, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

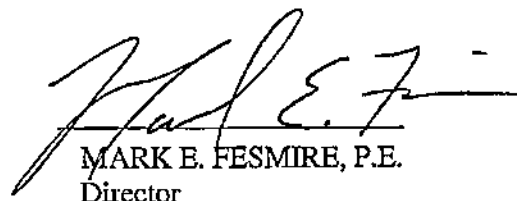
In accordance with Division Rule No 26.12.C., the disposal authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good

Administrative Order SWD-1163
Mack Energy Corp
March 9, 2009
Page 3 of 3

cause. One year after disposal into the well has ceased, the authority to dispose will terminate *ipso facto*.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.


MARK E. FESMIRE, P.E.
Director

MEF/wvj

cc: Oil Conservation Division -- Artesia
State Land Office -- Oil, Gas, and Minerals Division

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
District IV
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 197620

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 197620
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	3/15/2023