

Office  
 District I – (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
 District II – (575) 748-1283  
 811 S. First St., Artesia, NM 88210  
 District III – (505) 334-6178  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV – (505) 476-3460  
 1220 S. St. Francis Dr., Santa Fe, NM  
 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 Revised July 18, 2013

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

WELL API NO. 30-025-33678
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name McDonald SWD
8. Well Number 1
9. OGRID Number 013837
10. Pool name or Wildcat SWD, San Andres

SUNDRY NOTICES AND REPORTS ON WELLS  
 (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 ☐ Gas Well ☐ Other SWD

2. Name of Operator  
 MACK ENERGY CORPORATION

3. Address of Operator  
 PO BOX 960, ARTESIA, NM 88211-0960

4. Well Location

Unit Letter I : 1334 feet from the SOUTH line and 987 feet from the EAST line  
 Section 9 Township 15S Range 32E NMPM County LEA

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
 4303.7' GR

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
 DOWNHOLE COMMINGLE ☐  
 CLOSED-LOOP SYSTEM ☐  
 OTHER: STEP RATE TEST ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
 COMMENCE DRILLING OPNS. ☐ P AND A ☐  
 CASING/CEMENT JOB ☐  
 OTHER: ☐

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.

Step Rate Test Procedure

1. Notify NMOCD of plan to perform SRT 72 hours before SRT.
2. Per NMOCD (Million Gebremichael) the well will only need to be shut in long enough to reach reservoir pressures since this well will never have been disposed into. Post completion shut well in until approval is granted to perform SRT.
3. MIRU frac tanks for needed water volume (~1600 bbls)
4. MIRU Cudd Acidizing. (Tubing, casing, rate sensors)
5. Perform MIT test and bradenhead test. (If OCD on location requires it again post initial completion)
6. MIRU Renegade Wireline.
7. Make gauge ring run down tubing with wireline.
8. POH w/ wireline.
9. RU Spartek 1 1/4" Sapphire Memory Gauge.
10. RIH with wireline and memory gauge below packer (~5,100) to record BHP during SRT.
11. Begin SRT test at 0.5 BPM increasing by .5 BPM each step unless otherwise instructed by NMOCD. Each step in the test MUST be 30 minutes unless otherwise instructed by NMOCD.
12. The intent is to complete a SRT with at least three (3) steps below the 0.5 psi/ft gradient and three (3) steps above the fracture parting pressure (breakdown pressure). Or until surface pressures reach 90% of the maximum working pressure of well head/tree TEST NEEDS TO BE PUMPED UNINTERRUPTED. Will have to start over if the test is interrupted.
13. After SRT is completed POH w/ wireline.
14. RD wireline.

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



TITLE

REGULATORY SUPERVISOR

DATE

7/22/2024

Type or print name JERRY W SHERRELL

E-mail address: jerrys@mec.com

PHONE: 575-748-1288

**For State Use Only**

APPROVED BY:

TITLE

DATE

Conditions of Approval (if any):

MACK ENERGY CORPORATION  
MCDONALD SWD #001  
API # 30-025-33678  
I-09-15S-32E

### Step Rate Test Procedure

1. Notify NMOCD of plan to preform SRT 72 hours before SRT.
2. Per NMOCD (Million Gebremichael) the well will only need to be shut in long enough to reach reservoir pressures since this well will never have been disposed into. Post completion shut well in until approval is granted to perform SRT.
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MACK ENERGY CORPORATION  
MCDONALD SWD #001  
API # 30-025-33678  
I-09-15S-32E

**Tentative SRT Pump Schedule**

Step	Rate	Step Time (Minutes)	Step Volume (BBLs)	Cumulative Time (Minutes)	Cumulative Volume (BBLs)
1	0.5	30	15	30	15
2	1	30	30	60	45
3	1.5	30	45	90	90
4	2	30	60	120	150
5	2.5	30	75	150	225
6	3	30	90	180	315
7	3.5	30	105	210	420
8	4	30	120	240	540
9	4.5	30	135	270	675
10	5	30	150	300	825
11	5.5	30	165	330	990
12	6	30	180	360	1170
13	6.5	30	195	390	1365
14	7	30	210	420	1575
15	7.5	30	225	450	1800

**NOTE –Schedule is subject to change based on test conditions, well conditions and/or recommendations per NMOCD representative.**

**NOTE – This well will have been newly completed prior to the SRT so there will be no injection history of volumes or pressure.**



## Cement & Casing Design

## Uncompleted WBD

Location	MCDONALD SWD #001		API # 30-025-33678	
	SHL Section I-09-15S-32E			
	1334 FSL 987 FEL			
	33.027788,-103.7173001		Date 7/22/2024	Page 1

Tubular	Size (in.)	Weight (lbs/ft)	Grade	Thread	Top Depth (ft.KB)	Bottom Depth (ft.KB)
Invalid Name						
1. Surface Casing	13-3/8"	48#	J-55	ST&C	0	4500'
2. Intermediate Casing	8-5/8"	32#	J-55	LT&C	0	4050'
3. Production Casing	5-1/2"	17-20#	L-80		0	12500
3. CIBP					6400'	

[illegible]

## NOTES

This document is confidential correspondence between our company and its customer. It may not be reproduced in any form, in whole or in part, by any means including any electronic format, nor its contents disclosed to anyone but our employees and employees of our customer.

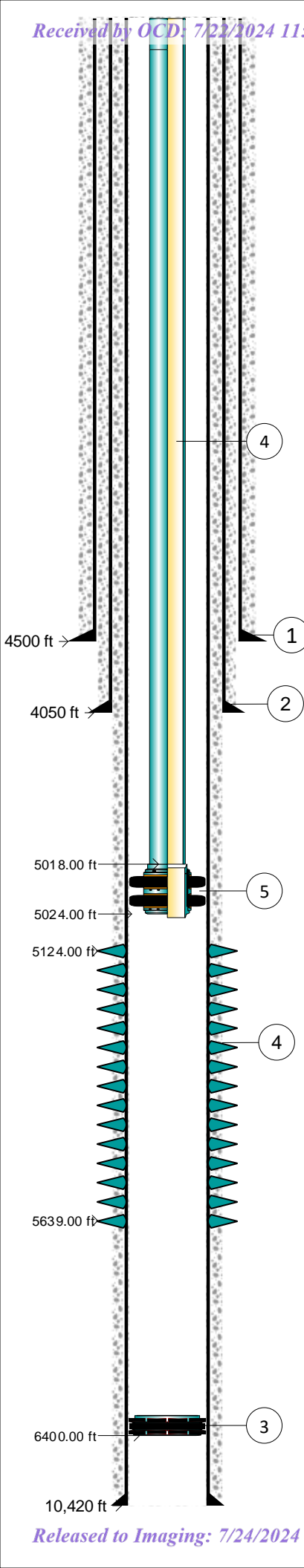
**powerDRAW.net**

4500 ft  $\rightarrow$ 

4050 ft ➤

6400.00 ft-

10,420 ft



## Tentative Completed WBD

Location	MCDONALD SWD #001		API # 30-025-33678	
	SHL Section I-09-15S-32E			
	1334 FSL 987 FEL			
	33.027788,-103.7173001		Date	7/22/2024
			Page	1

Tubular	Size (in.)	Weight (lbs/ft)	Grade	Thread	Top Depth (ft.KB)	Bottom Depth (ft.KB)
Invalid Name						
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2. Intermediate Casing	8-5/8"	32#	J-55	LT&C	0	4050'
3. Production Casing	5-1/2"	17-20#	L-80		0	12500
3. CIBP					6400'	

[illegible]

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## ELECTRONIC MEMORY RECORDERS Sapphire Pressure Gauge

**Spartek Systems** specializes in providing the oil and gas industry with high quality data to monitor well performance and diagnose potential problems. Founded in 1994, Spartek Systems leads the industry in providing cost effective solutions for acquiring reliable well information.

### Product Overview

Spartek Systems once again demonstrates superior technological innovation with its latest series of Sapphire pressure recorders. Working closely with our customers, our engineering team has developed a multi-purpose gauge that significantly improves overall job performance. This new series of gauge incorporates the latest low-power three volt technology to minimize power consumption. Depending on the sampling rate, a pressure recorder could run up to one year on a single AA cell. Our engineers did not sacrifice signal resolution or sampling speed in order to reduce power consumption. The recorders utilize a proprietary parallel dual digital (PDD) signal processing technique to maximize signal to noise and improve resolution.

The SS2700 series also incorporates hybrid electronic technology to ensure long term operations at high temperatures. The software tools supporting the new Sapphire series have been enhanced to provide programming features such as pressure triggers, multi-job programming, detailed job logging, high sample rates (up to 10 samples per second), enhanced user diagnostics, and USB interface support. To learn more about these exciting new products, contact a Spartek Systems sales representative for more information.



### Primary Features

- ▶ Long battery life
- ▶ 3 V, single cell operation
- ▶ 10 sample/s sampling rate
- ▶ Pressure trigger
- ▶ Sour service operation
- ▶ Designed for USB with retrieval rates up to 50,000 samples/min
- ▶ Data separation for multiple jobs
- ▶ Advanced diagnostics
- ▶ Surface readout
- ▶ Large Memory (up to 8,000,000 samples)
- ▶ Windows 10/8/7/Vista/XP/NT/2000

### Applications

- ▶ Well Testing
- ▶ Monitor Well Performance
- ▶ Permanent Sensors (Monitoring)
- ▶ Completion Diagnostics
- ▶ Well Stimulation
- ▶ Reservoir Characterization
- ▶ Gradient Survey

## SPARTEK SYSTEMS

Providing Our Customers With "Best In Class" Technology

Email: [sales@sparteksystems.com](mailto:sales@sparteksystems.com)

<http://www.sparteksystems.com>



Rev: 4/15/19

## Specifications:

MODEL	SS2300 Series	SS2500 Series	SS2700 Series
<b>Pressure</b> Sensor Type Range(s) (psi)  Accuracy <sup>1,2</sup> Resolution Drift	Sapphire 750, 1500, 3k, or 6k  0.3 psi or 0.03% Full-Scale 0.0003% Full-Scale < 0.03% Full-Scale / year	Sapphire 10k, 15k, or 20K* * (1.0" or 1.25" O.D. only) 0.3 psi or 0.03% Full-Scale 0.0003% Full-Scale < 0.03% Full-Scale / year	Sapphire 10k, 15k, or 20k* * (1.0" or 1.25" O.D. only) 0.3 psi or 0.05% Full-Scale 0.0003% Full-Scale < 0.03% Full-Scale / year
<b>Temperature</b> <sup>3</sup> Accuracy <sup>4</sup> Resolution	135°C (275°F) ± 0.5°C (0.9°F) < 0.001 °C (.0018°F)	150°C (302°F) ± 0.5°C (0.9°F) < 0.001 °C (.0018°F)	177°C (350°F) ± 0.5°C (0.9°F) < 0.001 °C (.0018°F)
<b>Power Requirements</b> Voltage (min) Current (Sleep) Current (Sample)	3 V 0.10 mA 4.50 mA	3 V 0.10 mA 4.50 mA	3 V 0.20 mA 4.80 mA
<b>Data Acquisition</b> Channels  Fastest sample rate Memory Capacity Option(s) Pressure Trigger Redundant Memory	Pressure Temperature Time 10 samples/second 4,000,000 samples 8,000,000 samples Yes 2x, 4x	Pressure Temperature Time 10 sample/second 4,000,000 samples 8,000,000 samples Yes 2x, 4x	Pressure Temperature Time 10 sample/sec 4,000,000 samples  Yes 2x, 4x
<b>Housing</b> Material Options Diameter Length	Stainless Steel 17-4 PH DH1150 718 Age Hardened Inconel - NACE MRO175 0.75", 1.00", or 1.25" Varies with configuration		
<b>Communications</b>	RS232 / USB		
<b>Software OS</b>	Windows 10/8/7/Vista/XP/NT/2000		
<b>Surface Readout</b>	Yes		

## Notes:

1. Accuracy is larger of the two stated values. This includes the combined effects of hysteresis, repeatability, and the corrected linearity over the calibrated temperature range.
2. Pressure accuracy for the lower pressure transducers are based on the following calibrated temperature ranges: 750 psi (0 to 80°C), 1500 psi (0 to 100°C), and 3000 psi (0 to 120°C). All other transducers are based on maximum operating temperature specified. Consult your SparteK representative for specifications at other calibrated temperature ranges.
3. Operating Temperature Range for the equipment is stated from 0°C to max temperature. Actual calibrated temperature range can vary based on customer requirements. The standard calibration range for the SS2700 is 0°C to 170°C (standard lithium batteries are rated to 165°C max).
4. Temperature accuracy is valid for tools with PT1000 RTD. Temperature Accuracy can be calibrated to better than <0.15°C on request.

Specifications subject to change without notice

For More Information, Pricing, and Technical Support Contact:

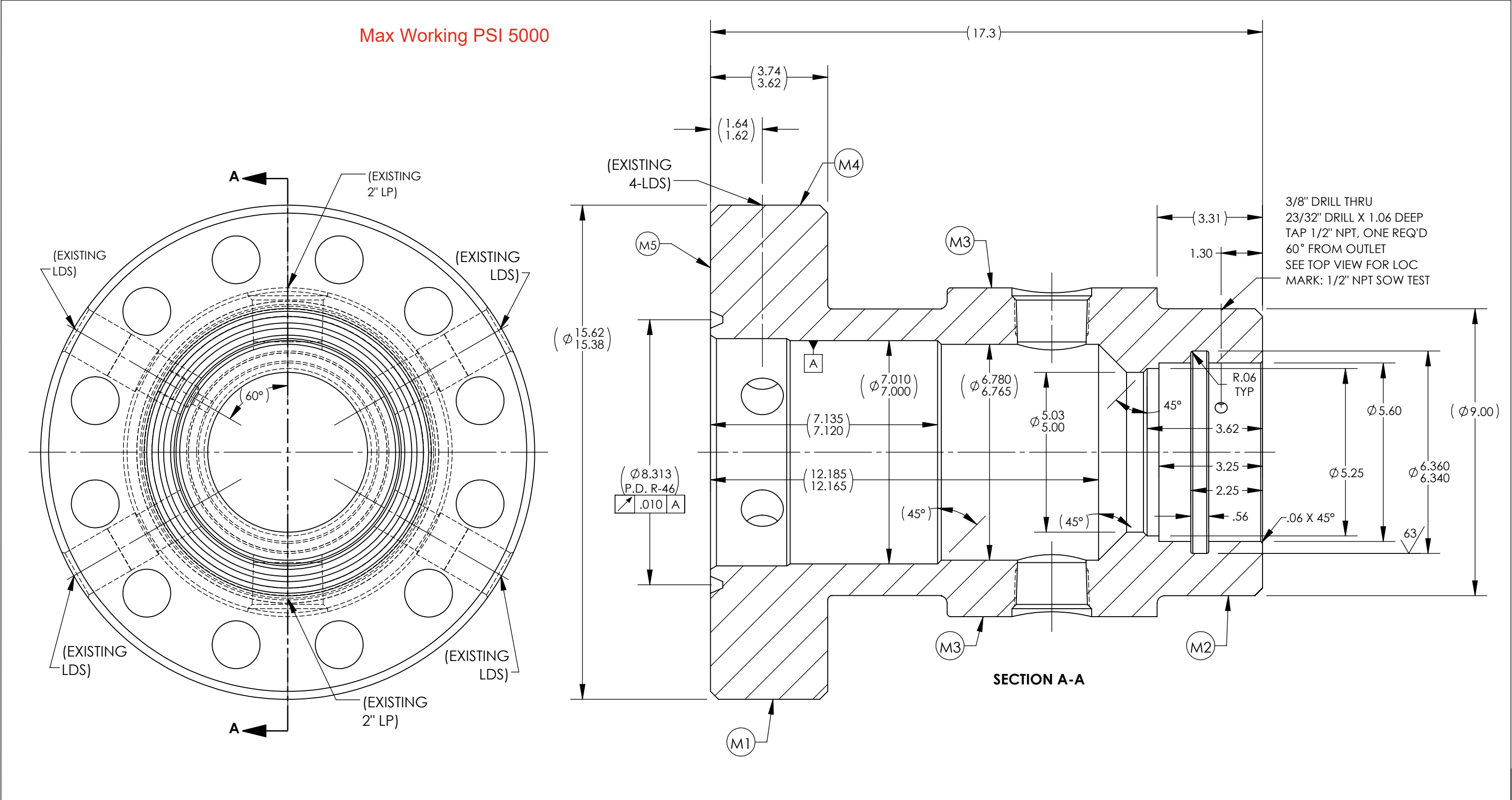


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Canada, T4S 2J6

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Fax: (403) 887-4050

**Providing Our Customers With "Best In Class" Technology**

Email: [sales@sparteksystems.com](mailto:sales@sparteksystems.com)<http://www.sparteksystems.com>



- M1 MARK:  
5000 PSI WP  
JMP-TCM, 7-1/16  
BORE: 5.00"  
HEAT#:  
MATL:

M2 MARK:  
5-1/2" SOW
- M3 MARK:  
2" LP THD

M4 MARK:  
7-1/16" 5000, R-46

M5 MARK:  
PART NUMBER & CURRENT REV.

<div>H</div> <div>HARDNESS TEST LOCATION FOR PSL 1 &amp; 2. STENCIL ACTUAL HARDNESS NEXT TO TEST</div>	UNLESS OTHERWISE SPECIFIED  ALL DIMENSIONS ARE IN INCHES ALL EDGE BREAKS .03 x 45° OR .03 R. ALL DIAMETERS CONCENTRIC WITHIN .005 T.I.R. ALL STENCILING TO BE LOW STRESS TYPE			<div><div><div><div></div><div></div></div><div></div></div><div>THIRD ANGLE PROJECTION</div></div>			<div><div><div><div></div><div></div></div><div></div></div><div>Cactus Wellhead</div></div>		
<div>H*</div> <div>ADDITIONAL HARDNESS TEST LOCATIONS FOR PSL 3 THRU 4. STENCIL ACTUAL HARDNESS NEXT TO TEST</div>									
<div>This document includes the proprietary and confidential information of Cactus Wellhead. The information in it will not be reproduced, used or disclosed in any manner or for any purpose except for reference to work under contracts or proposals submitted by Cactus Wellhead. This document shall be returned to Cactus Wellhead upon request.</div>	TOLERANCES		SURFACE FINISH	DO NOT SCALE DWG			TITLE TBGHD BDY,JMP-TCM-SOW,7-1/16 5M X 5-1/2 SOW,W/2 2 LP,ORING & FLAT BTM,CF,126540		
	.X	± .1	500	DRAWN BY:	PSR	15APR19			
	.XX	± .02	250	APPROVED BY: LSH 18APR19					
	.XXX	± .005	125						
	FRACTIONS	± 1/32	N/A	WEIGHT: 277 LBS					
	ANGLES	± 1/2°	N/A	EWR: 7502					
				SIZE	DRAWING NUMBER		SHEET 1 OF 1		
				B	MD10306		REV. A01		

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

CONDITIONS  
  
Action 366029

CONDITIONS

Operator:  MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID:
	13837
	Action Number: 366029
	Action Type: [C-103] NOI Workover (C-103G)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	7. Selection of rates for the SRT will be developed by the operator based on the proposed operation and the historical information of the well. Suggested rates for the test are 5%, 10%, 20%, 40%, 60%, 80% and 100% of the proposed maximum daily injection rate at the corresponding pressure. The intent is to complete SRT with at least three (3) steps below the fracture gradient and three (3) steps above the fracture parting pressure (breakdown pressure). Starting pump rates and pressures must be lower than the current rates and pressures if the well is currently injecting. It may be necessary to back-flow the well to reduce initial SRT pressures.	7/24/2024