

DATE IN 01/03/13	SUSPENSE	ENGINEER PG	LOGGED IN 10/29/13	TYPE IPI	APP NO. PPRG1330361353
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - 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

**Application Acronyms:**

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

[D] Other: Specify SWD - 1297

BC operating  
 30-025-39734  
 South Denton 6  
 State SWD #2

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **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.

Jason Wacker  
 Print or Type Name

Jason Wacker  
 Signature

Operations Manager  
 Title

10/7/2013  
 Date

jwacker@bcoperating.com  
 e-mail Address

P.O. Box 50820  
Midland, Texas 79710  
Phone (432) 684-9696



4000 N Big Spring, Ste. # 310  
Midland, Texas 79705  
Fax (432) 686-0600

RECEIVED OGD

2013 SEP -9 PM 12:37

September 3, 2013

Jami Bailey – Division Director  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: Request IPI – Administrative Order No. SWD-1297 – South Denton 6 State #2 SWD

B.C. Operating, Inc. requests an injection pressure-limit increase to 2420 psig at surface for the subject well. The Hobbs District office was notified prior to conducting the step rate test. The attached supporting documentation is listed as follows:

1. Administrative Checklist - Injection pressure-limit increase
2. Step-rate test results
3. Wellbore diagram

SWD 1640 ps

Please contact our office at 432-684-9696 if any further information is needed to complete this request.

Sincerely,

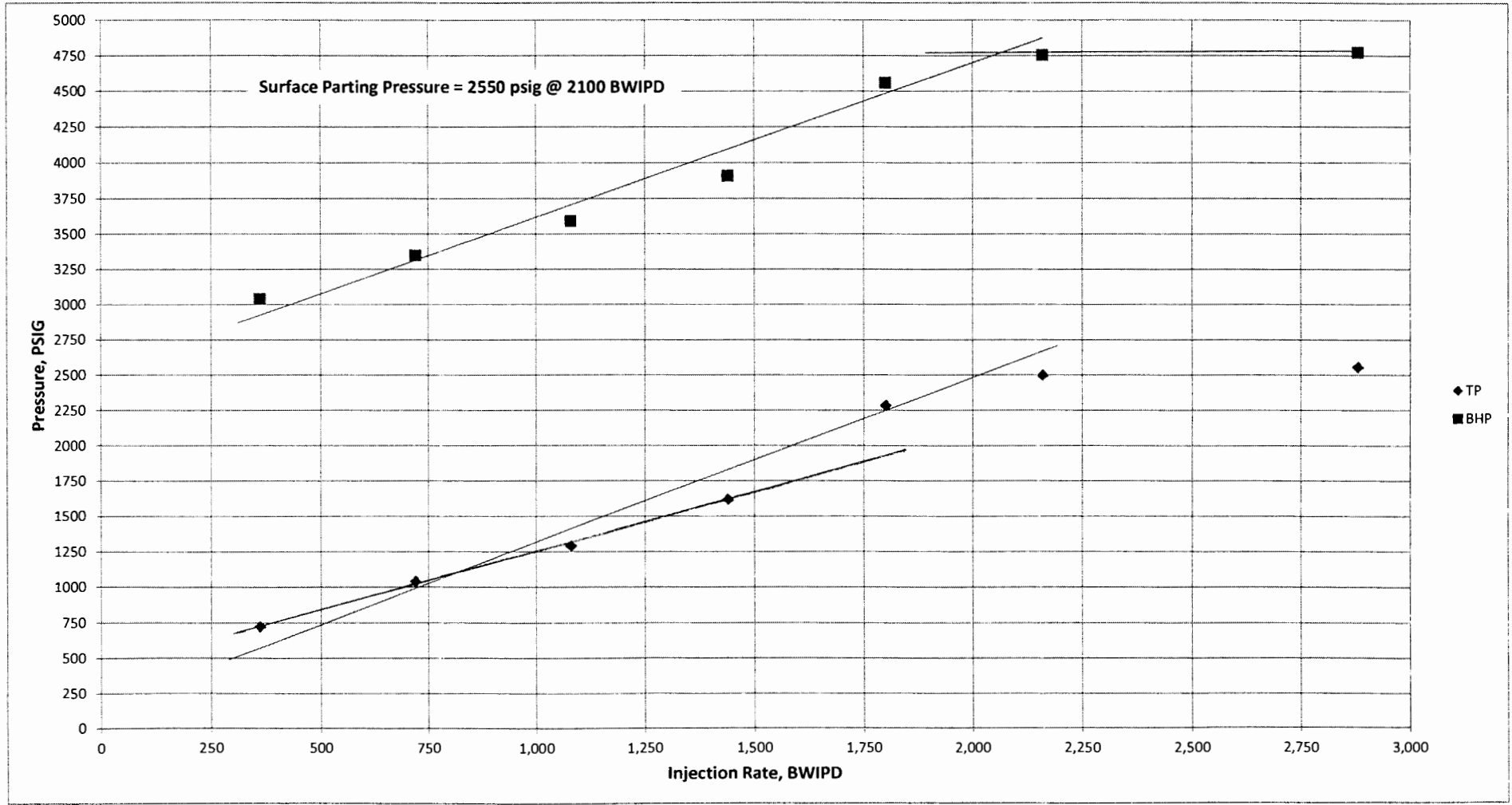
A handwritten signature in black ink that reads "Jason Wacker".

Jason Wacker  
Operations Manager

Cc: Elido Gonzales – NMOCD Hobbs District Supervisor

# South Denton 6 State #2 Step Rate Injection Test 8-2013.xlsx

Step	Rate, BPM	Inj Rate, BPD	TP	Friction	Hydrostatic Head	BHP
1	0.25	360	723	2	2319	3040
2	0.50	720	1039	9	2319	3349
3	0.75	1080	1288	17	2319	3590
4	1.00	1440	1618	29	2319	3908
5	1.25	1800	2283	43	2319	4559
6	1.50	2160	2497	60	2319	4756
7	2.00	2880	2556	102	2319	4773



# Step Rate Test Schedule

Well Name South Denton 6 State #2

Stage #	Stage Name	Fluid Type	Clean Rate BPM	Fluid Volume GAL	Fluid Volume BBL	Stage Time Mins	Tubing Pressure psig
0	Catch Pressure	Water	1.00	1,000	24	24	INITIAL PSI
1	Step Rate 1	Water	0.25	53	1	5	723 PSI
2	Step Rate 2	Water	0.50	105	3	5	1039 PSI
3	Step Rate 3	Water	0.75	158	4	5	1288 PSI
4	Step Rate 4	Water	1.00	210	5	5	1618 PSI
5	Step Rate 5	Water	1.25	263	6	5	2283 PSI
6	Step Rate 6	Water	1.50	315	8	5	2497 PSI
7	Step Rate 7	Water	2.00	420	10	5	2556 PSI
8	Step Rate 8	Water	2.50	525	13	5	
9	Step Rate 9	Water	3.00	630	15	5	
10	Step Rate 10	Water	3.50	735	18	5	
Step Rate Totals				3,413	81	50	

Flow well back to injection facility or frac tanks for at least 24 hours before the injection test.

Catch injected water sample and send to Martin Water Labs in Midland for analysis.



P.O.Box 61193  
Midland, Texas 79711  
Office# 432-617-0114  
Fax # 432-339-0140

• OIL WELL CEMENTING  
• ACID SERVICES

• TURNKEY ABANDONMENTS  
• FRACTURING SERVICES

# Acid Field Invoice:

# H2013-0637

Date of Job	8/23/2013	District:	Hobbs	New Well:		Old Well:	XX
Customer:	BC OPERATING			Well #:	2	Lease:	S. DENTON 6
Address:	PO BOX 50820			County/ Parish	LEA	State:	NM
City:	MIDLAND	State:	TX	Field:			
Zip Code:	79710			API#:		Mileage:	50
Contact Person/Company man:	VAL SAENZ			Salesman:			
Contact Number:	575-631-9249			Service Supervisor:			KELLY CROW
Rig Contractor:	NA			Tractor:		Equipment Operators:	
Rig Number:	NA			PK1119			KELLY CROW
Head & Manifold	NA			T 1071	AP5007		CARLOS BARRERA
				EXTRA			OLGUIN

Gals.

**STEPRATE**

**Acid System**

CUSTOMER SUPPLIED WATER

Description	Quantity	Cost per Unit	Unit cost after Discount	List of Price of Services	Discounted Price of Services
Acid Pump 0-5000 psi, 4 hr min	1	2,000.0000	\$1,700.0000	\$2,000.0000	\$1,700.0000
Acid Pump Truck Mileage	50	\$6.7500	\$5.7375	\$337.5000	\$286.8750
Acid Treating Van Mileage	50	\$5.2500	\$4.4625	\$262.5000	\$223.1250
Data Acquisition	1	\$1,000.0000	\$850.0000	\$1,000.0000	\$850.0000
Enviromental Charge	1	\$125.0000	\$106.2500	\$125.0000	\$106.2500
Valve & Swedge Rental 2"	1	\$450.0000	\$382.5000	\$450.0000	\$382.5000

<b>Price Book Total</b>	\$4,175.0000
<b>Discount 15%</b>	\$626.2500
<b>Job Total</b>	<b>\$3,548.7500</b>

CONTRACT CONDITIONS: (This agreement must be signed before work is commenced).

The undersigned, as authorized agent of the customer, agrees and acknowledges that the services, materials, products and supplies provided for in this order shall be subject to the terms and conditions attached Including Indemnty and waiver of warranty provisions. No additional terms and conditions shall apply to this order.

Signed: **x**

Well Owner, Operator, or Agent

Terms-Net

Payable on Receipt  
Over 30 Days, Discount Voids

Supervisor: **KELLY CROW**



Date: 8/23/2013 Time: 0500  
 Truck Called: 8/23/2013 0700  
 Arrived at location: 8/23/2013 0800  
 Start Job: 8/23/2013 1045  
 Finish Job: 8/23/2013 1100  
 Leave Location: 8/23/2013 1100

## Job Log

RISING STAR SERVICES LP.		Customer Name: BC OPERATING		Ticket Number:		H2013-0637	
P.O. BOX 61193		Lease Name: S. DENTON 6		Supervisor: KELLY CROW			
MIDLAND, TEXAS 79711		Well #: 2		County: LEA			
OFFICE # 432-617-0114		Type of Job: STEPRATE		CUSTOMER REPRESENTATIVE: VAL SAENZ			
FAX #432-339-0140		Date:					
Tubing Size: 2.875		Casing size: 5.5		Tbg Capacity: #####			
Tubing weight: 4.6		Casing weight: 17		Top Perf:		On Form:	
Tubing bbl/ft: .2341		Casing bbl/ft: .9763		Bottom Perf:			
Packer depth: 5000		Annulus: .6625		Flush Top Perf: 1170.50			
End of Tbg:		Total Depth: 6000		Flush Bottom Perf: 1170.50			
Top Perf:		Open Hole:		Annular Capacity:			
Bottom Perf:		Liner Size:		Maximum:		Psi	
Holes In Csg:		Top of Liner					

Max psi: 2630 Min psi: 373 Avg psi: 1920 MAX RATI 2 Avg rate: 1.25 ISIP 2551

Load to recover 1940 5 min 1867 10 min 1781 15 min

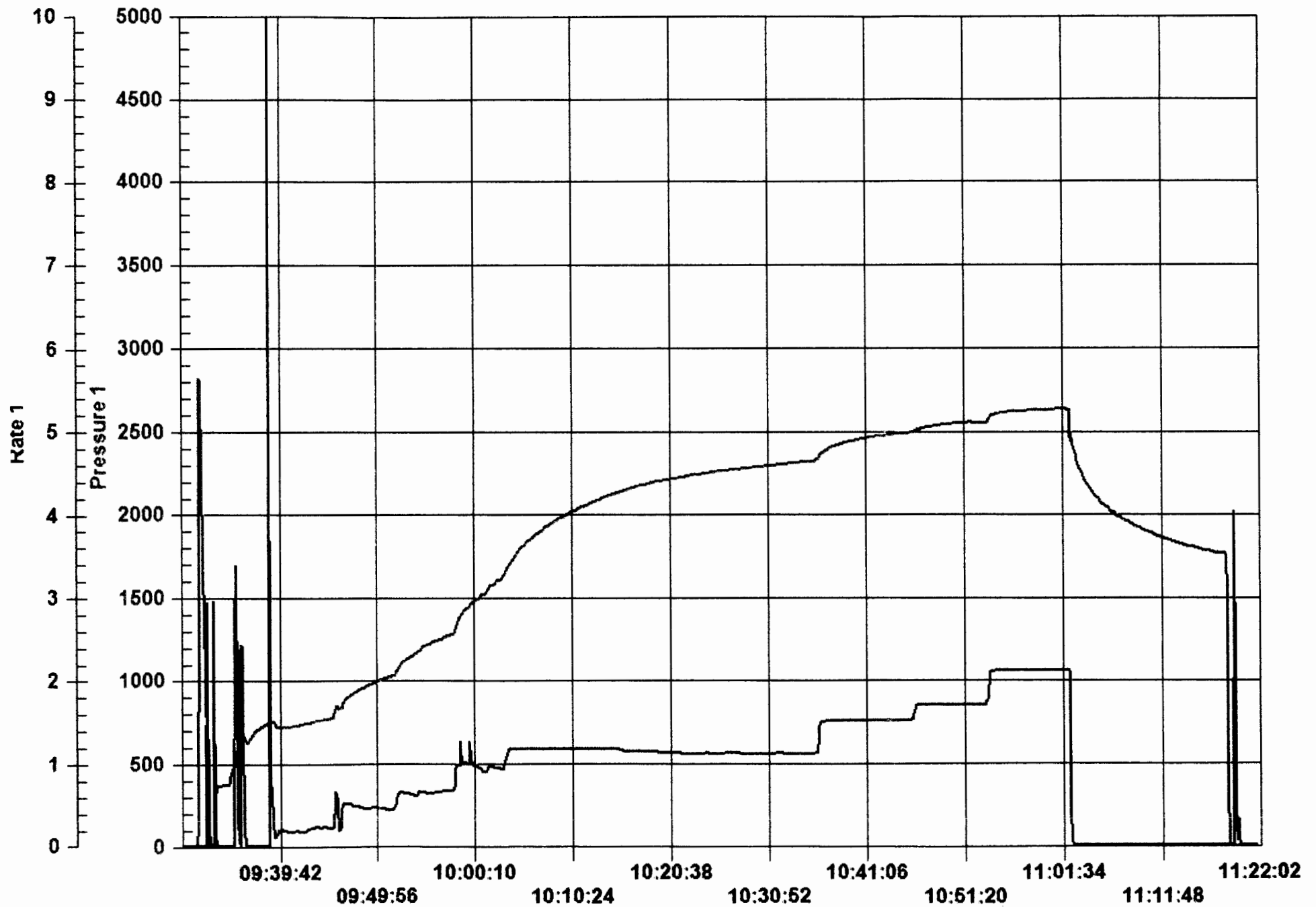
### Acid Systems

Acid System:	NA	Gallons	NA		
Diverter:	NA	BALLS	NA	Rock Salt	NA

		Injection Rate:		Job Pressures		Job Log Remarks:
Time	Rate:	Bbls in		Tbg psi.	Csg psi	
0500						CALLOUT FOR JOB
0555						PRE CONVOY SAFETY MEETING
0600						DEPART FACILITY
0700						ARRIVE ON LOCATION
0705						PRE RIG UP SAFETY MEETING
0710						RIG UP
0800						PRE JOB SAFETY MEETING
8:22 AM						TEST LINES
8:36 AM	0.2			723	O	START RATE AT .25 BPM INITIAL OPEN 378 PSI
8:43 AM	0.5			1039	O	INCREASE RATE TO .5 BPM
8:49 AM	0.75			1288	O	INCREASE RATE TO .75 BPM
8:55 AM	1			1618	O	INCREASE RATE TO 1 BPM
9:00AM	1.25			2283	O	INCREASE RATE TO 1.25 BPM
9:32 AM	1.5			2497	O	INCREASE RATE TO 1.5 BPM
9:43 AM	2			2556	O	INCREASE RATE TO 1.75 BPM
9:51 AM	2.5			2638	O	INCREASE RATE TO 2 BPM
9:59 AM	3			2551		ISIP
10:04AM				1940		5 MIN SHUTIN
10:09AM			1867	0:00		10 MIN SHUTIN
10:14AM				1781		15 MIN SHUTIN
11:00AM						RIG DOWN AND DEPART LOCATION

SERVICE SUPERVISOR	CUSTOMER REPRESENTATIVE:	Signature Please
KELLY CROW	X	

# PUMPDOWN



LEASE & WELL NO. South Denton 6 State #2 SWD  
 FIELD NAME South Denton  
 LOCATION 330 FNL & 330 FWL, Sec 6, T16S, R38E

FORMER NAME \_\_\_\_\_  
 COUNTY & STATE Lea Co., NM  
 API NO. 30-025-39734

K.B. ELEV. 12'  
 D.F. ELEV. \_\_\_\_\_  
 GROUND LEVEL 3781'

SIZE 8-5/8" WEIGHT 24.0# DEPTH 2019'  
 GRADE \_\_\_\_\_ SX. CMT. 1035 sx TOC @ surface

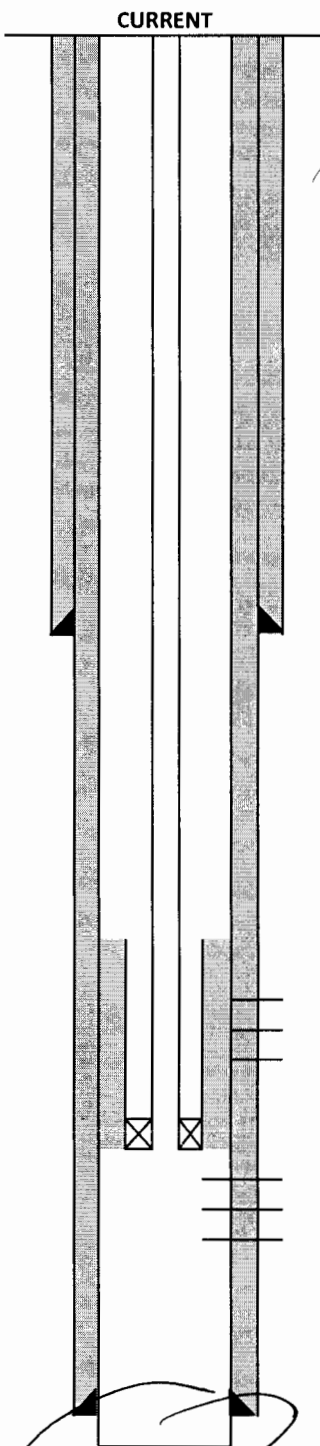
#### WELL HISTORY

4/15/2010 APD Approved  
 8/5/2010 NMOC Hearing for Injection Permit, permit approved  
 1/16/2011 Drilled well; no San Andres porosity encountered  
 Propose to deepen well by 350' to Glorieta  
 12/21/2011 Deepended to Glorieta & perforated San Andres  
 No injectivity - tight rock  
 12/22/2011 Perforate Queen (1 BPM @ 2660#)  
 Leave well TA'd  
 8/31/2012 Sqz'd Queen & frac'd San Andres/Glorieta  
 8/4/2013 Installed flush joint liner 5168'-6966' to isolate  
 Queen perforations

*Two Tubing Sizes*  
3 1/2" - 3850'  
2 7/8" - 1305'

4-1/2", 11.60#, FL-4S Liner  
 5168' - 3966'

SIZE 5-1/2" WEIGHT 15.5# DEPTH 6500'  
 GRADE \_\_\_\_\_ SX. CMT. 980 sx TOC @ \_\_\_\_\_  
 PBTD@ 6850'  
 TD@ 6850'



#### Tubing Description

FG 3-1/2", 9.3#, J-55  
 0'-3850'  
 FG 2-7/8", 6.5#, J-55  
 3850'-5158'

*Admin Approved*  
5200 x 0.2 = 1040

*Requested*  
2420 Per = 0.46  
5200 ft

Queen Squeezed w/ cmt  
 Perf 4436'-4452', 4342'-4353'  
 4270'-4278', 4210'-4240'

Inj Pkr @ 5158'

Perf 6322'-6332', 6230'-6240'  
 5962'-5970', 5230'-5238'  
 5200'-5222'

Injection Interval  
 5200' - 6850'  
 San Andres & Glorieta

*Open hole*  
6500 to 6850'



# SWD-1297/South Denton 6 State SWD #2 - IPI Application - SRT 2013 Results

