

DATE: 2/11/13	SUSPENSE	ENGINEER: WJS	LOGGED IN	TYPE: IPI 434	APP NO: 1308364212
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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]

A PACHE CORP

[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

☐ WEX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

OCRID 873
 API # 30-015-32421
 Well Red Lake 3 State #1
 Located E-03-188-28E
 OLD SWD-1365 11/5/12
 7428-7890 1486PX
 WOLF CAMP FM.
 1720 FNL / 1075 FWL
 (E)

[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.

Fatima Vasquez

Print or Type Name

[Signature]
 Signature

Regulatory Tech

Title

03/04/2013

Date

Fatima.Vasquez@apachecorp.com

e-mail Address



03/04/2013

Mr. Will Jones
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Red Lake 3 State #1

Mr. Will Jones,

Based on the Administrative Order SWD-1365 issued on November 5, 2012, the maximum surface injection pressure is 1486 psi. Apache Corporation respectfully requests to increase the injection based on the 3 1/2" tbg. Step rate tests have been performed and the results are summarized below. More detailed information in regards to the test and wellbore are enclosed.

Well	API	Fracture Pressure	Requested Inj. Pressure Limit	SRT Date
Red Lake 3 State #1	30-015-32421	Not observed	1514*	02/28/2013

* Increase tubing size from 2 7/8" to 3 1/2".

Please feel free to contact the engineer, Mark Thomas, at (432) 818-1071 or myself should you have any questions or need any other information. Thank you for your time and consideration.

Regards,

Fatima Vasquez
Regulatory Tech I
Apache Corporation
Fatima.Vasquez@apachecorp.com
(432) 818-1015



RECEIVED OCD

2013 MAR 11 P 1:24

03/04/2013

Mr. Will Jones
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Red Lake 3 State #1

Mr. Will Jones,

Based on the Administrative Order SWD-1365 issued on November 5, 2012, the maximum surface injection pressure is 1486 psi. Apache Corporation respectfully requests to increase the injection based on the 3 ½" tbg. Step rate tests have been performed and the results are summarized below. More detailed information in regards to the test and wellbore are enclosed.

Well	API	Fracture Pressure	Requested Inj. Pressure Limit	SRT Date
Red Lake 3 State #1	30-015-32421	Not observed	1514*	02/28/2013

* Increase tubing size from 2 ⅞" to 3 ½".

Please feel free to contact the engineer, Mark Thomas, at (432) 818-1071 or myself should you have any questions or need any other information. Thank you for your time and consideration.

Regards,

Fatima Vasquez
Regulatory Tech I
Apache Corporation
Fatima.Vasquez@apachecorp.com
(432) 818-1015

Jones, William V., EMNRD

From: Vasquez, Fatima <Fatima.Vasquez@apachecorp.com>
Sent: Tuesday, March 05, 2013 12:05 PM
To: Jones, William V., EMNRD
Subject: RE: Red Lake 3 State #1 (API#30-015-32421)
Attachments: Red Lake 3 State 1 IPI.PDF; SWD 1365 Red Lake 3 St 1.pdf

Mr. Will Jones,

Good afternoon! Apache has changed out the tubing from 2 7/8" to 3 1/2" and would now like to request a small increase in pressure. Please see the attached. I am going to put that in the mail today, but meanwhile we are waiting for approval, can we inject at the old approved pressure of 1486 psi with the Administrative Order SWD-1365? Please advise.

Thank you for your help! ☺

Fatima Vasquez | Regulatory
303 Veterans Airpark Ln, Ste 3000
Midland, TX 79703
☎ (432) 818-1015 direct
✉ Fatima.Vasquez@apachecorp.com



From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Thursday, February 07, 2013 5:16 PM
To: Vasquez, Fatima
Subject: RE: Red Lake 3 State #1 (API#30-015-32421)

Yes!

Have a wonderful day.

From: Vasquez, Fatima [<mailto:Fatima.Vasquez@apachecorp.com>]
Sent: Thursday, February 07, 2013 4:02 PM
To: Jones, William V., EMNRD
Subject: RE: Red Lake 3 State #1 (API#30-015-32421)

Just to clarify, all I would need to submit is a subsequent C-103 informing you of the change once completed since there is not any language specifying tubing size in the SWD permit # 1365 and we will still be using a 0.2 psi gradient for the pressure limit.

Thank you for your help Mr. Will! ☺

Fatima Vasquez | Regulatory
303 Veterans Airpark Ln, Ste 3000
Midland, TX 79703
☎ (432) 818-1015 direct



From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Monday, February 04, 2013 5:06 PM
To: Vasquez, Fatima
Cc: Dade, Randy, EMNRD; Inge, Richard, EMNRD
Subject: Red Lake 3 State #1 (API#30-015-32421)

Hello Ms. Vasquez,

If on this well, you had in the past run a Step Rate Test and obtained an IPI permit allowing higher wellhead injection pressure, that IPI permit was based on a certain size tubing. So you would in that situation need to formally ask for a revised IPI permit to allow the upsized tubing.

If on this well, you are still using 0.2 psi gradient for the pressure limit, and the SWD permit language does not specify a certain size tubing, then the engineering bureau does not object to you changing tubing size.

Hope this helps,

Will Jones

Jones, William V., EMNRD

From: Vasquez, Fatima <Fatima.Vasquez@apachecorp.com>
Sent: Wednesday, March 06, 2013 4:23 PM
To: Jones, William V., EMNRD
Subject: RE: Red Lake 3 State #1 (API#30-015-32421)
Attachments: Red Lake 3 State 1 WBD.PDF

Thank you Mr. Will, this is much easier to read now. LOL! ☺

The SRT was run with the new 3 ½ " tubing. Attached is the wellbore diagram with the new tubing and the location of the packer (7540'). I will stick the originals in the mail tomorrow with the packet I e-mailed you the other day.

Thank you once again and have a fabulous day! ☺

Fatima Vasquez | Regulatory
303 Veterans Airpark Ln, Ste 3000
Midland, TX 79703

☎ (432) 818-1015 direct

✉ Fatima.Vasquez@apachecorp.com



From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Tuesday, March 05, 2013 5:24 PM
To: Vasquez, Fatima
Subject: RE: Red Lake 3 State #1 (API#30-015-32421)

From: Jones, William V., EMNRD
Sent: Tuesday, March 05, 2013 2:01 PM
To: 'Vasquez, Fatima'
Cc: Ezeanyim, Richard, EMNRD; Goetze, Phillip, EMNRD; Dade, Randy, EMNRD; Inge, Richard, EMNRD
Subject: RE: Red Lake 3 State #1 (API#30-015-32421)

Hello Fatima,
Yes to your question. ☺

Please send another well bore diagram showing the tubing size (and type) and packer as currently in place in this well.

Also, let me know if the Step Rate Test was run with that current tubing or with a work string (if so, what size and type) or with smaller size tubing (and type). The treatment log had no indication of tubing size or type.

This application is only asking for a slight increase in pressure over the original permit – so not a big deal. However, for future consideration, we “really” like to see bottom hole pressure data on Step Rate Tests. With this high rate and relatively deep disposal, the friction was likely pretty significant. If you had asked for a significant increase in pressure, we would have had you re-run the test with a bottom hole gauge. I think we have mentioned this before.

I will log this in and probably process within the next week.

Have a great day,

William V. Jones, P.E.

505-476-3448W 505-476-3462F

Engineering Bureau, Oil Conservation Division

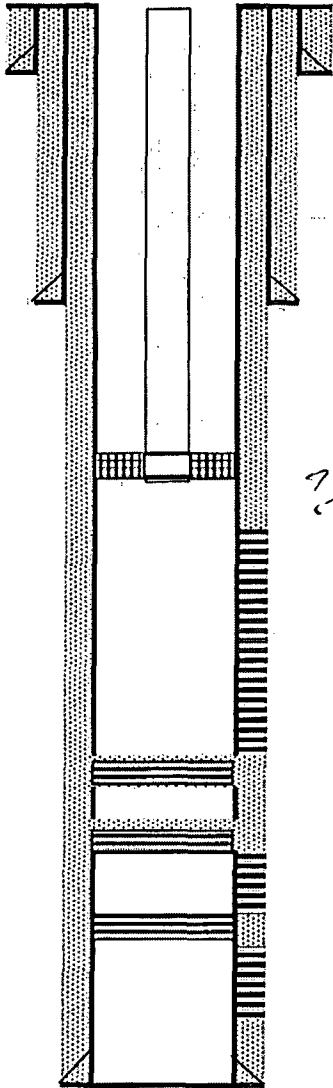
1220 South St. Francis Dr.

Santa Fe, NM 87505

Apache Corp.

GROUP:	Permian North	DATE:	Mar. 06, 2013
FIELD:		BY:	SNH
LEASE/UNIT:	Red Lake 3 State	WELL:	#1
COUNTY:	Eddy County	STATE:	New Mexico
API #:	30-015-32421		

GL = 3658'



13-3/8" J-55 48# set @ 478'
cmt w/ 725 sx to surface

8 5/8" J-55 32# set @ 2990'
cmt w/ 1045 sx to surface

3-1/2" J-55 TK-Fiberline II Tbg w/turned down collars @ 7543.72'
2-7/8" x 5-1/2" BB 10K 1XN NP PKR @ 7540'

1/4/13: WOLFCAMP
7572'-7600' (2 JSPF, 28 holes)
5/03: WOLFCAMP
7650'-7660'
7678'-7690'
7706'-7730'
7840'-7846'

12/31/12: CIBP @ 7940' w/3 sx cmt

5/03: CIBP @ 10250' w/ 35' cmt on top

3/03: MORROW

10287'-10312'

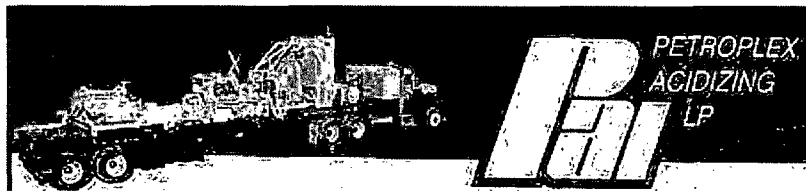
4/03: CIBP @ 10440'

3/03: MORROW

10500'-10504'

5-1/2" L-80 17# set @ 10700' (Top 110' 5-1/2" J-55 17#)
cmt w/ 970 sx (TOC = Surface)

TD = 10700'
PBTD = 7937'



APACHE

DAVID PEDROZA

STEP RATE

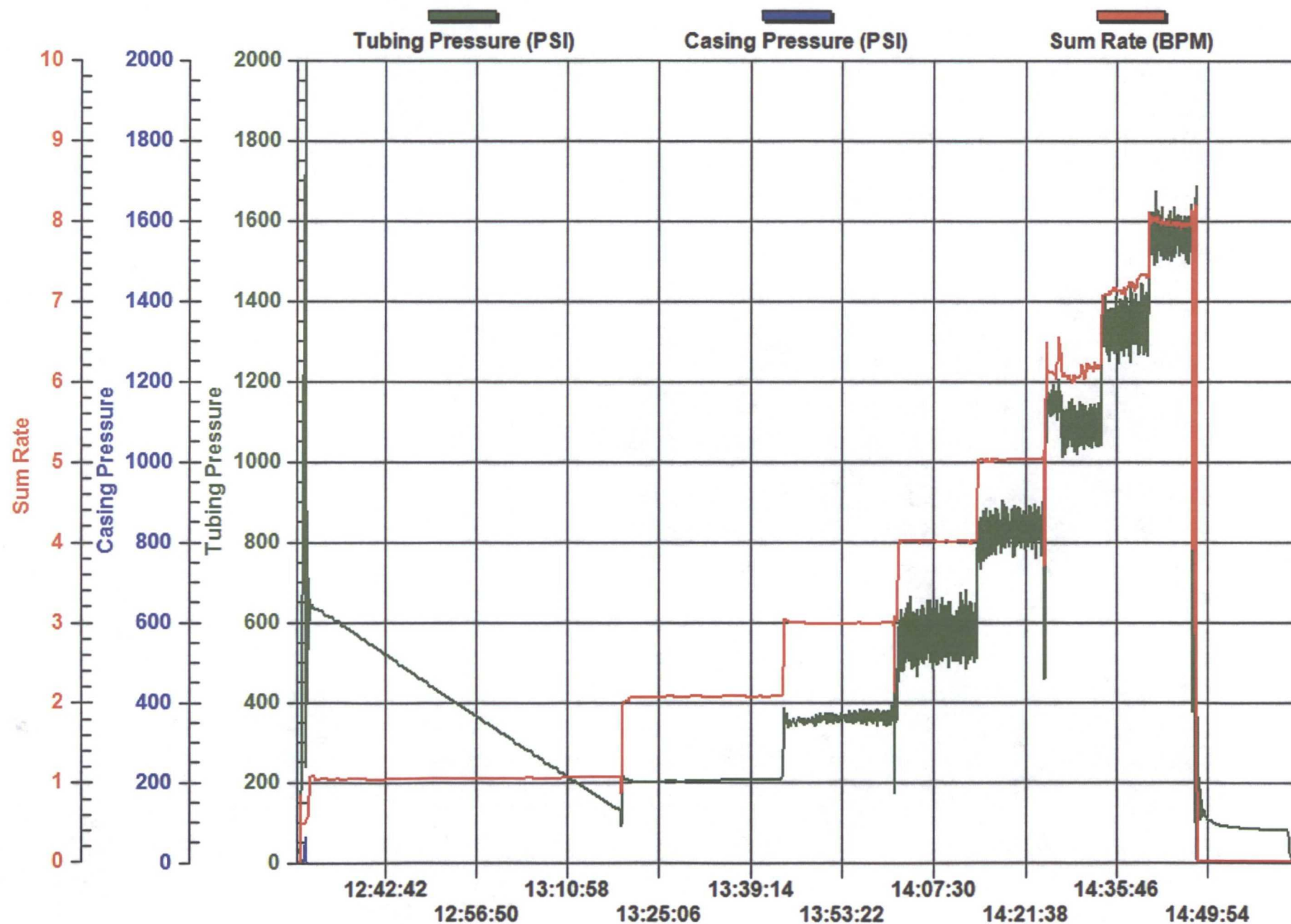
Treater: DAVID JUAREZ

2/28/2013

Well: 1

Field: RED LAKE 3 STATE
EDDY, NM

APACHE-RED-LAKE-3-STATE-1---2-28-13





Treatment Report

page 1

Customer: APACHE	Ticket # 56363
Well Name & No.: RED LAKE 3 STATE #1	Formation: 0.00
County: EDDY	Date: February 28, 2013
State: NM	Well type: Oil / Old / Stim.

Customer Information	
Address:	0.00
City, State:	0.00
Zip Code:	0
Customer Representative:	DAVID PEDROZA



Remarks

Arrive on Location: 11:00 AM
 Depart Location: 3:00 PM
 Total Hours: 4.00

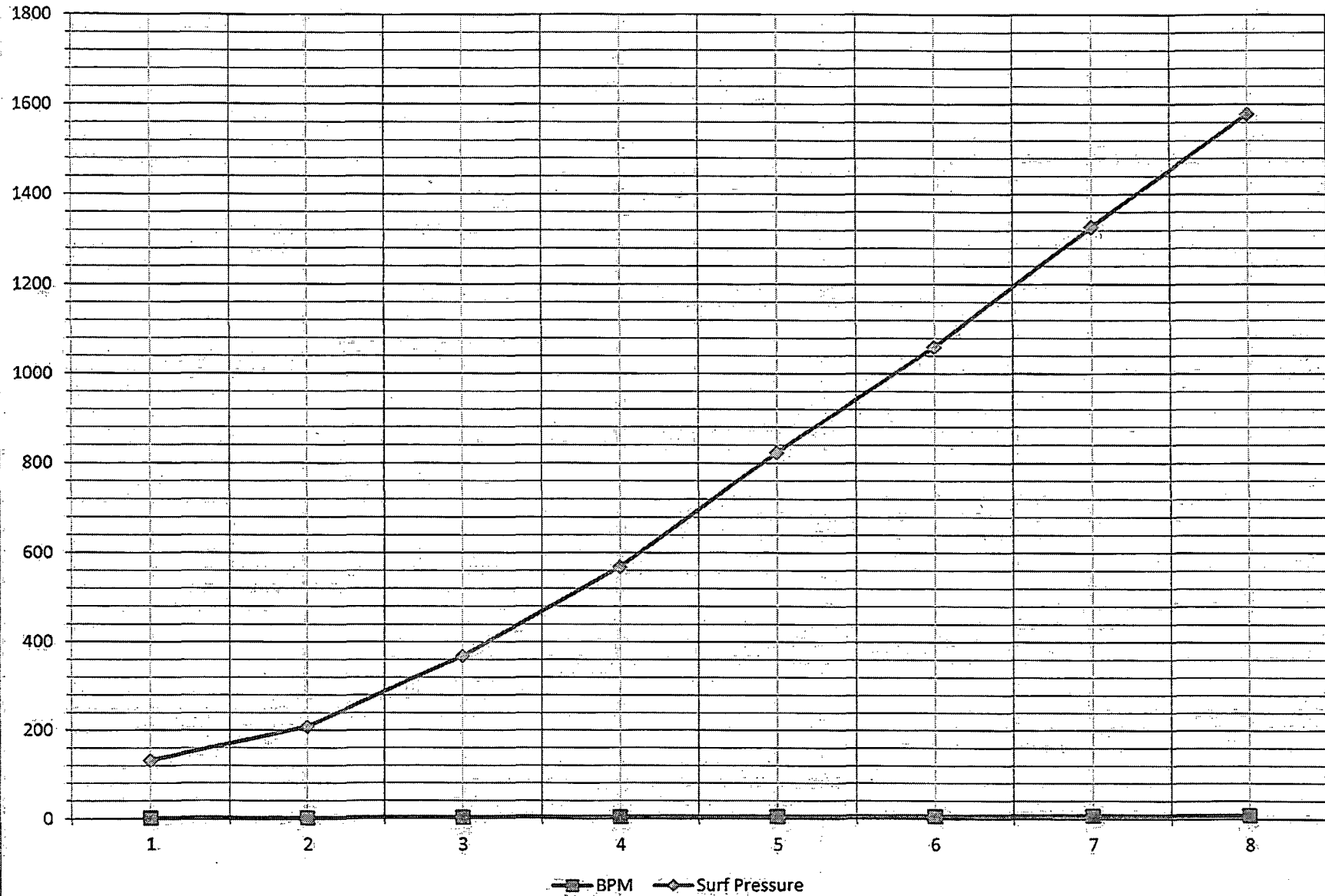
	Depth	O.D	Weight	I.D	Volume	Bbls/linear ft.
Tubing 1 length ft.:	N/A		0	0.000	0.00 BBLS.	0.00000
Tubing 2 length ft.:					0.00 BBLS.	0.00000
Casing 1 length ft.:	N/A	5 1/2	0.00	0.000	##### BBLS.	0.00000
Casing 2 length ft.:					0.00 BBLS.	0.00000
Open Hole length ft.:		N/A	N/A		0.00 BBLS.	0.00000
Combined Depth ft.:	#VALUE!				Annular Vol.: BBLS.	0.00000

	Depth	Vol.	Maximum Pressure:	ISIP:
Top Perf/Open Hole:	N/A	#VALUE!	1617	105
Bottom Perf/Open Hole:	N/A	#VALUE!	Average Pressure:	5 min:
Number of Perfs:	N/A		1336	98
Perf Size:	0.31 in.		Maximum Rate:	10 min:
Packer Depth:	N/A ft.		8.0	82
			Average Rate:	15 min:
			6.8	79
			Fluid to Recover:	Proppant Total:
			416	

Time	STP	Casing	Rate	Stage	Total	Comments
11:00:07 AM	0					SAFETY MEETING
11:40:24 AM	0	514.0	0.0		0.4	PRESSURE TESTED CASING
12:30:24 PM	1989	0.0	0.5		1.0	START WATER
12:31:41 PM	634	0.0	1.0		1.8	1BPM
12:41:06 PM	539	0.0	1.0		11.9	10 BLS
12:52:50 PM	423	0.0	1.0		21.9	20 BLS
1:01:00 PM	322	0.0	1.0		31.9	30 BLS
1:09:47 PM	228	0.0	1.0		41.9	40 BLS
1:19:09 PM	132	0.0	1.0		51.9	50 BLS
1:19:54 PM	208	0.0	2.0		52.9	2 BPM
1:24:54 PM	199	0.0	2.0		62.9	10 BLS
1:29:58 PM	202	0.0	2.0		72.9	20 BLS
1:35:08 PM	203	0.0	2.0		82.9	30 BLS
1:39:31 PM	205	0.0	2.0		92.9	40 BLS
1:44:21 PM	208	0.0	2.0		102.9	50 BLS
1:44:57 PM	358	0.0	3.0		103.8	3 BPM
1:48:07 PM	343	0.0	3.0		113.8	10 BLS
1:51:25 PM	365	0.0	3.0		123.8	20 BLS
1:54:50 PM	355	0.0	3.0		133.8	30 BLS
1:58:51 PM	369	0.0	3.0		143.8	40 BLS
2:01:33 PM	368	0.0	3.0		153.8	50 BLS
2:02:28 PM	537	0.0	4.0		155.0	4 BPM
2:04:30 PM	538	0.0	4.0		165.0	10 BLS
2:07:00 PM	553	0.0	4.0		175.0	20 BLS
2:10:34 PM	647	0.0	4.0		185.0	30 BLS
2:11:58 PM	536	0.0	4.0		195.0	40 BLS
2:14:26 PM	568	0.0	4.0		205.0	50 BLS
2:14:49 PM	824	0.0	5.0		206.0	5 BPM
2:17:08 PM	832	0.0	5.0		216.0	10 BLS
2:18:44 PM	809	0.0	5.0		226.0	20 BLS
2:20:42 PM	818	0.0	5.0		236.0	30 BLS

[illegible]

Red Lake 3 #1 - Step-Rate Injectivity - Surface Pressure

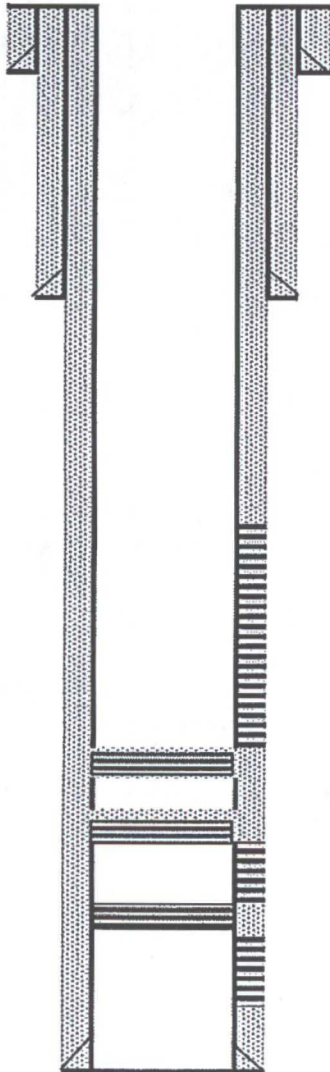


Apache Corp.

GROUP: Permian North
FIELD:
LEASE/UNIT: Red Lake 3 State
COUNTY: Eddy County
API #: 30-015-32421

DATE: Feb. 10, 2013
BY: SNH
WELL: #1
STATE: New Mexico

GL = 3658'



TD = 10700'
PBTD = 7937'