

DATE IN 7/25/12	SUSPENSE	ENGINEER WVJ	LOGGED IN	TYPE FPI 420	APP NO. PWVJ 1221342241
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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 _____
- [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.

Renee Jarratt Renee Jarratt Regulatory Analyst 8/1/12
 Print or Type Name Signature Title Date
 renee_jarratt@eogresources.com
 e-mail Address



July 18, 2012

RECEIVED OGD

EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3600

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

2012 JUL 25 P 12:53

State of New Mexico
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87504

Re: Request for increased wellhead injection pressure on Elk Wallow 11 State #5 (API 30-015-38388)

Ladies and Gentlemen:

EOG Resources, Inc. is requesting authorization to increase the maximum allowable wellhead injection pressure on our Elk Wallow 11 State #5 as specified in Administrative Order SWD-1267 from 640 psi to 975 psi. This request is based on two independent factors including:

- (1) The planned injection interval specified as part of the original permitting process was 3,200' – 4,800'. However, the actual injection interval defined by the top and bottom perforation depth is 3,700' – 4,590', an increase in depth to the top perforation of 500'. On this basis, EOG is requesting a minimum increase in wellhead injection pressure of 100 psi (0.20 psi/ft x 500 ft), from 640 to 740 psi.
- (2) A step-rate test, that included a maximum instantaneous rate –pressure point occurring at 7.35bpm and 1,010 psi, was performed July 3, 2012 on the subject well. Data captured using one second sampling frequency was averaged over each step interval to produce the discrete points appearing in the attached Rate vs. Pressure plot. The step-rate test plot does not present the characteristic slope change indicating formation parting pressure at any point along the linear “best-fit” path. In considering the test results and accompanying interpretation, we believe it is unlikely that a change in surface injection pressure from 640 to 975 psi would create a subsurface condition where disposed fluids would migrate from the target formation as a result of that change.

Should you require additional data and/or have technical questions related to this request, please contact Paul Herring (Production Engineer) at 432-686-3677 or paul_herring@eogresources.com.

Sincerely,

Stan Wagner
Regulatory Analyst

925
w/50 psi
SAFETY
FACTOR

Attachments

energy opportunity growth

Step-Rate Test Summary

EOG Resources, Inc.

Elk Wallow 11 State #5 (30-015-38388)

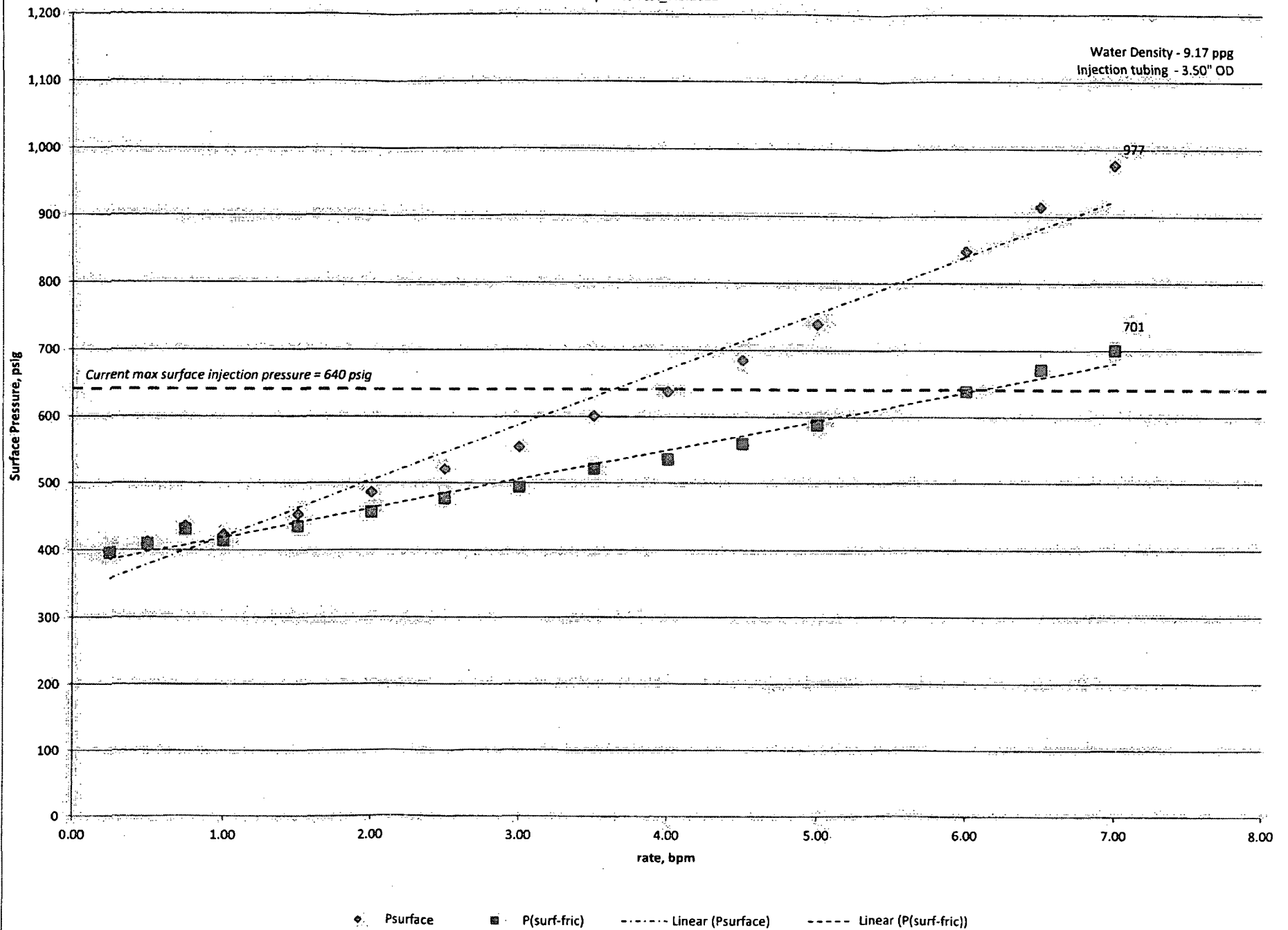
Date	Injection Rate		P_s , psi	P_f , psi	$P_{(s-f)}$, psi
	bpm	bpd			
7/3/2012	0.30	432	396	1	395
	0.50	720	412	2	410
	0.80	1,152	436	5	431
	1.00	1,440	423	9	414
	1.50	2,160	452	18	435
	2.00	2,880	486	29	457
	2.50	3,600	520	43	477
	3.00	4,320	554	60	494
	3.50	5,040	601	79	521
	4.00	5,760	638	101	537
	4.50	6,480	685	125	560
	5.00	7,200	739	151	588
	6.00	8,640	848	209	639
	6.50	9,360	914	241	672
	7.00	10,080	977	276	701
Water SG	1.10			ISIP	552
Density	9.17	ppge		5 min	531
Inj Tbg	3-1/2" OD			10 min	523
Top Perf @	3,700	ft		15 min	516

P_s - Surface injection pressure recorded during step rate test

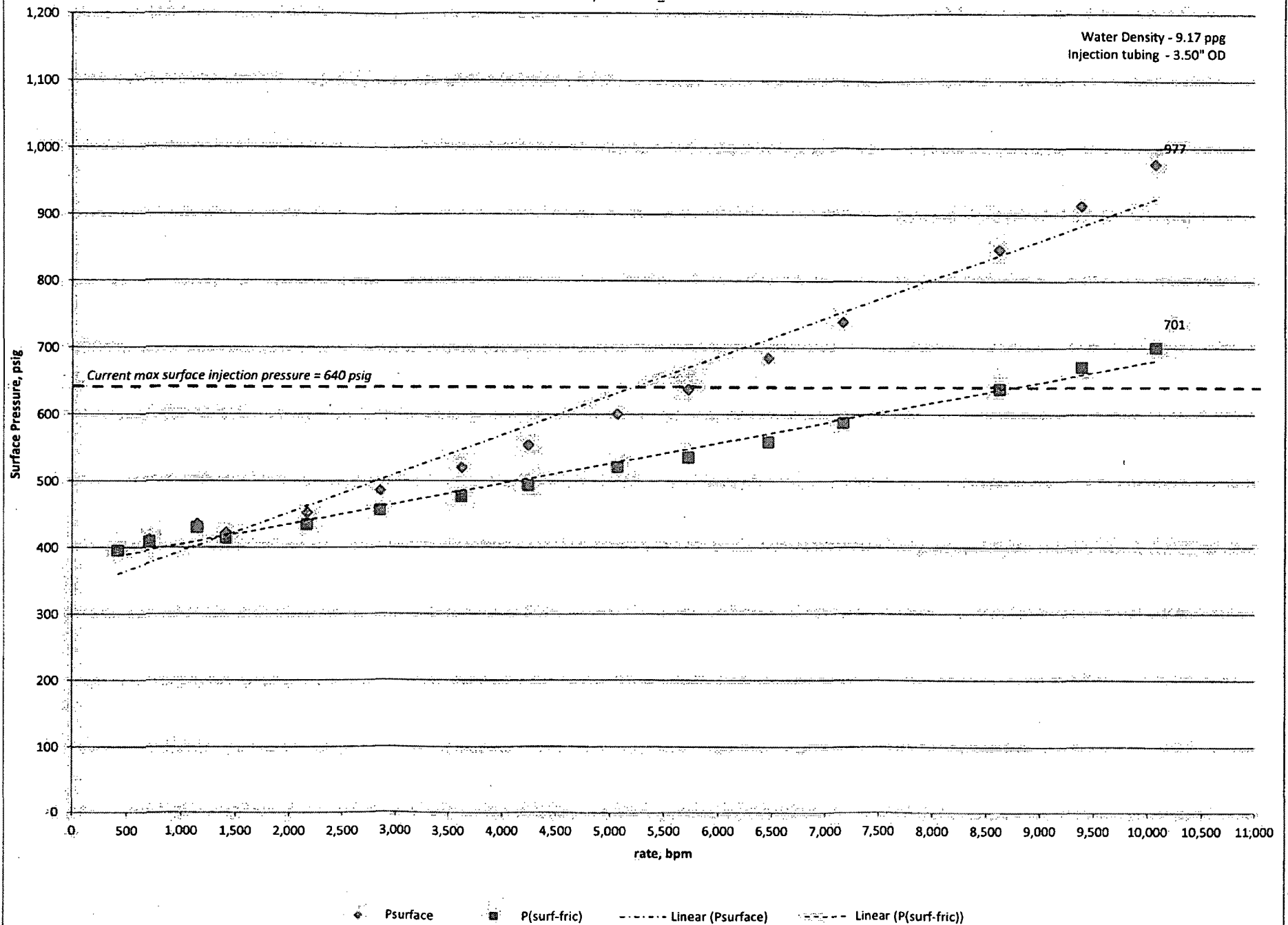
P_f - Calculated friction pressure at the indicated rate and fluid density

$P_{(s-f)}$ - Adjusted surface injection pressure with friction effect removed

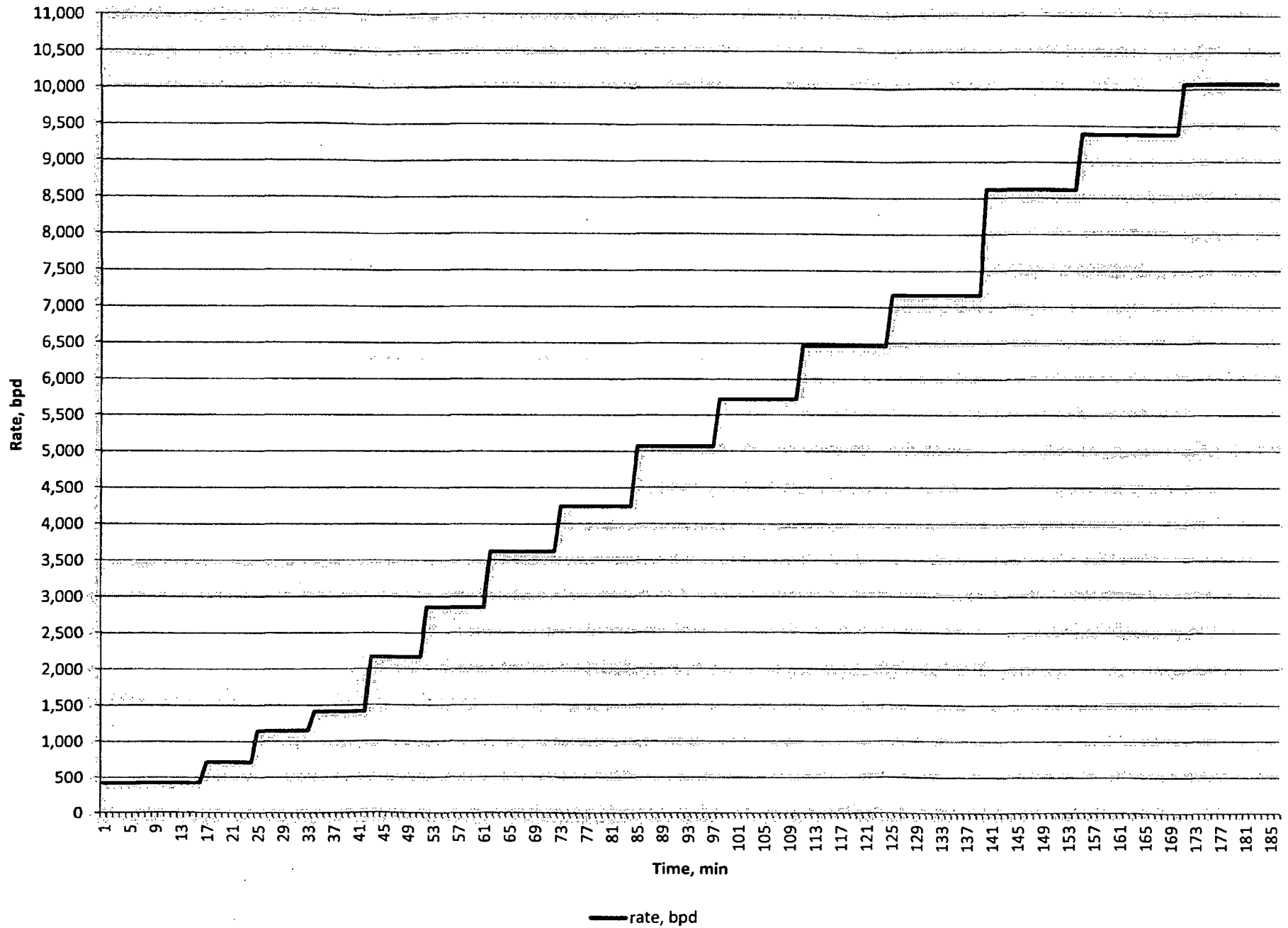
EOG Resources, Inc.
Elk Wallow State 11 #5 (API# 30-015-38388)
Step Rate Test_7.3.2012



EOG Resources, Inc.
Elk Wallow State 11 #5 (API# 30-015-38388)
Step Rate Test 7.3.2012



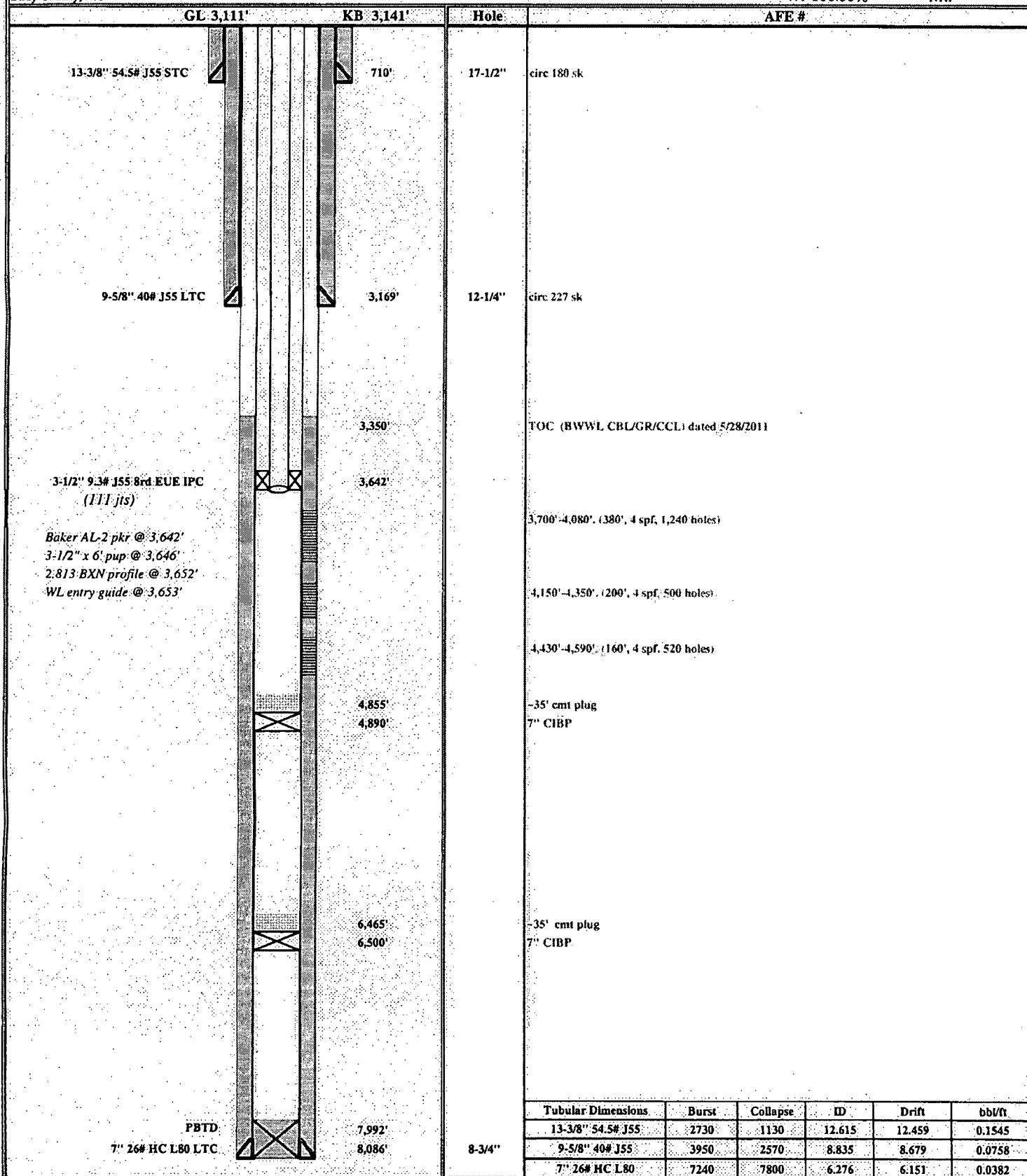
EOG Resources, Inc.
Elk Wallow State 11 #5 (API #30-015-38388)
Step Interval Profile for test conducted 7.3.2012



Eddy County, NM



WI 100.00% NRI



Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Tuesday, July 31, 2012 11:38 AM
To: 'Paul_Herring@eogresources.com'
Cc: Ezeanyim, Richard, EMNRD
Subject: RE: IPI Application from EOG Resources: Elk Wallow 11 State #5 30-015-38388

Paul,
Will you please send a copy of this application to OXY?
We don't need any protest period, they are simply being noticed as an FYI.

Thank You,

Will Jones
New Mexico
Oil Conservation Division
[Images](#) [Contacts](#)

From: Jones, William V., EMNRD
Sent: Monday, July 30, 2012 6:05 PM
To: Paul_Herring@eogresources.com
Cc: Sanchez, Kimberly V, EMNRD; Ezeanyim, Richard, EMNRD
Subject: IPI Application from EOG Resources: Elk Wallow 11 State #5 30-015-38388

Hello Paul,
Got an application to raise the surface pressure limit on this well today from Stan Wagner and his letter said to ask you if any issues arise.

Would you guys fill out and sent to me the Oil Conservation form:
"Administrative Order Checklist" this form should be at the front of any application received here.

This is the first unnumbered form under "Forms" on the Division's web site.

Thank You Sir,

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

Jones, William V., EMNRD

From: Stan_Wagner@eogresources.com
Sent: Monday, March 28, 2011 8:34 AM
To: Jereme_Robinson@oxy.com
Cc: Brent_Sonnier@oxy.com; Jones, William V., EMNRD
Subject: Re: Elk Wallow 11 State #5

Good Morning Jereme,

Please accept this as confirmation of your email dated 3/23/11 regarding OXY's proposal for EOG to allow OXY 90-days from 3/28/2011 to perform a cement squeeze behind pipe and test the Delaware formation in regard to our C-108/SWD application, Elk Wallow 11 State 5.

EOG agrees to the specified time frame in your proposal for the cement squeeze. EOG understands that by allowing OXY 90-days for the work to be performed, OXY will not protest the C-108/SWD application of our Elk Wallow 11 State 5 currently filed with NMOCD.

If you need additional information, please feel free to contact me.

Regards,

Stan Wagner
Regulatory Analyst
EOG Resources - Midland Division
432-686-3689

☺ ---03/23/2011 03:05:47 PM---Stan: Per our conversation on the phone today please accept this email as a conformation as well as

From: <Jereme_Robinson@oxy.com>
To: <stan_wagner@eogresources.com>
Cc: <william.v.jones@state.nm.us>, <Brent_Sonnier@oxy.com>
Date: 03/23/2011 03:05 PM
Subject: Elk Wallow 11 State #5

Stan:

Per our conversation on the phone today please accept this email as a conformation as well as information to EOG for the following:

OXY will not protest the C-108/SWD for the subject well in lieu of:
EOG allowing OXY 90-days from 3/28/2011 to squeeze cement behind pipe to recomplete and test the Delaware formation.

OXY's concern was the mechanical integrity of the casing in an existing well at or around 3000' away without cement behind pipe in EOG's proposed injection interval. OXY would feel most comfortable to be afforded time (90days) by EOG to squeeze cement behind pipe in that interval to avoid possible future environmental issues and/or costly repairs.
This request is made in good faith and as a precautionary measure.

If anyone at EOG Resources should have any questions, concerns, or comments to this email you may contact myself at the information provided below or Brent Sonnier at 713-366-5654

Regards,

Jereme W. Robinson
Regulatory Analyst
OXY USA Inc.
OXY USA WTP LP
5 Greenway Plaza, Suite 110
Houston, TX 77046
Ofc: 713.366.5360
Fax: 713.985.1965
jereme_robinson@oxy.com

Jones, William V., EMNRD

From: Renee_Jarratt@eogresources.com
Sent: Wednesday, August 01, 2012 9:25 AM
To: Jones, William V., EMNRD
Subject: IPI Application EOG Resources - Elk Wallow 11 St #5 30-015-38388
Attachments: Elk Wallow 11 St #5 SWD.tif

Mr. Jones,

I have enclosed what Paul has asked me to fill out for you. Stan is on vacation, so I hope I did this correctly. I have also sent OXY a copy of the Request for Increased Pressure.

Please let me know if you need anything else from EOG and I will try to make sure you receive it.

Thanks,

Renee' Jarratt

Reneé Jarratt | Sr. Regulatory Administrator | EOG Resources, Inc. | 432-686-3684 |
renee_jarratt@eogresources.com

(See attached file: Elk Wallow 11 St #5 SWD.tif)