

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 _____

IPI
 - ALAMO Permian Resources
 274841

Well
 - West Artesia Grayburg
 Unit #4
 30-015-02648

2014 DEC -9 P 3:02
 RECEIVED OGD

[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

Pool
 - Artesia Queen -
 Grayburg - SAN Andres
 3230

[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.

Tyler Woodruff
 Print or Type Name

Signature

Senior Landman
 Title

12/1/14
 Date

twoodruff@alamoresources.com
 e-mail Address



December 1, 2014

Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

Re: Injection Pressure Increase Application
Alamo Permian Resources, LLC
West Artesia Grayburg Unit Well No. 4
Pool: Artesia-Queen-Grayburg-San Andres Pool (3230)
Eddy County, New Mexico

Dear Ms. Bailey:

Alamo Permian Resources, LLC ("Alamo"; OGRID No. 274841), as current operator of the West Artesia Grayburg Unit Waterflood Project, located in portions of Sections 7, 8, & 17, Township 18 South, Range 28 East, NMPM, Eddy County, New Mexico, hereby requests administrative approval to increase the surface injection pressure for the West Artesia Grayburg Unit Well No. 4, API # 30-015-02648 ("WAGU Well No. 4").

The WAGU Well No. 4 was approved for injection under Ordering Paragraph (1) of Division Order No. R-3357-C dated March 17, 2011. Pursuant to Ordering Paragraph (12) of Division Order No. R-3357-C, Alamo was approved a maximum surface injection pressure of 423 psi for the abovementioned well.

On November 11, 2014, Alamo conducted a step rate injection test on the WAGU Well No. 4. The performed step rate test indicates a surface fracture pressure was not reached at a surface pressure maximum of 1000 psi for the abovementioned well. Alamo was unable to continue the test to a higher rate due to a mechanical issue with the pump truck. Attached for your use and review is the Cardinal Surveys Company report on the step rate test performed on the WAGU Well No. 4.

Based on the results of the WAGU Well No. 4 step rate test and the results from the West Artesia Grayburg Unit Well No. 12 step rate test, which also did not reach a surface fracture point at 1705 psi and is in close proximity to the WAGU Well No. 4, Alamo, hereby requests authority to increase the maximum surface injection pressure to 1400 psi for the WAGU Well No. 4. The WAGU Well No. 4 will not take a sufficient volume of fluid at the current pressure limit and an approval of the proposed pressure increase will allow Alamo to effectively and efficiently conduct secondary recovery operations within the West Artesia Grayburg Unit Waterflood Project, thereby increasing the recovery of hydrocarbons from the Artesia-Queen-Grayburg-San Andres Pool (3230).

Should you have any questions or need any additional data, please do not hesitate to contact me.

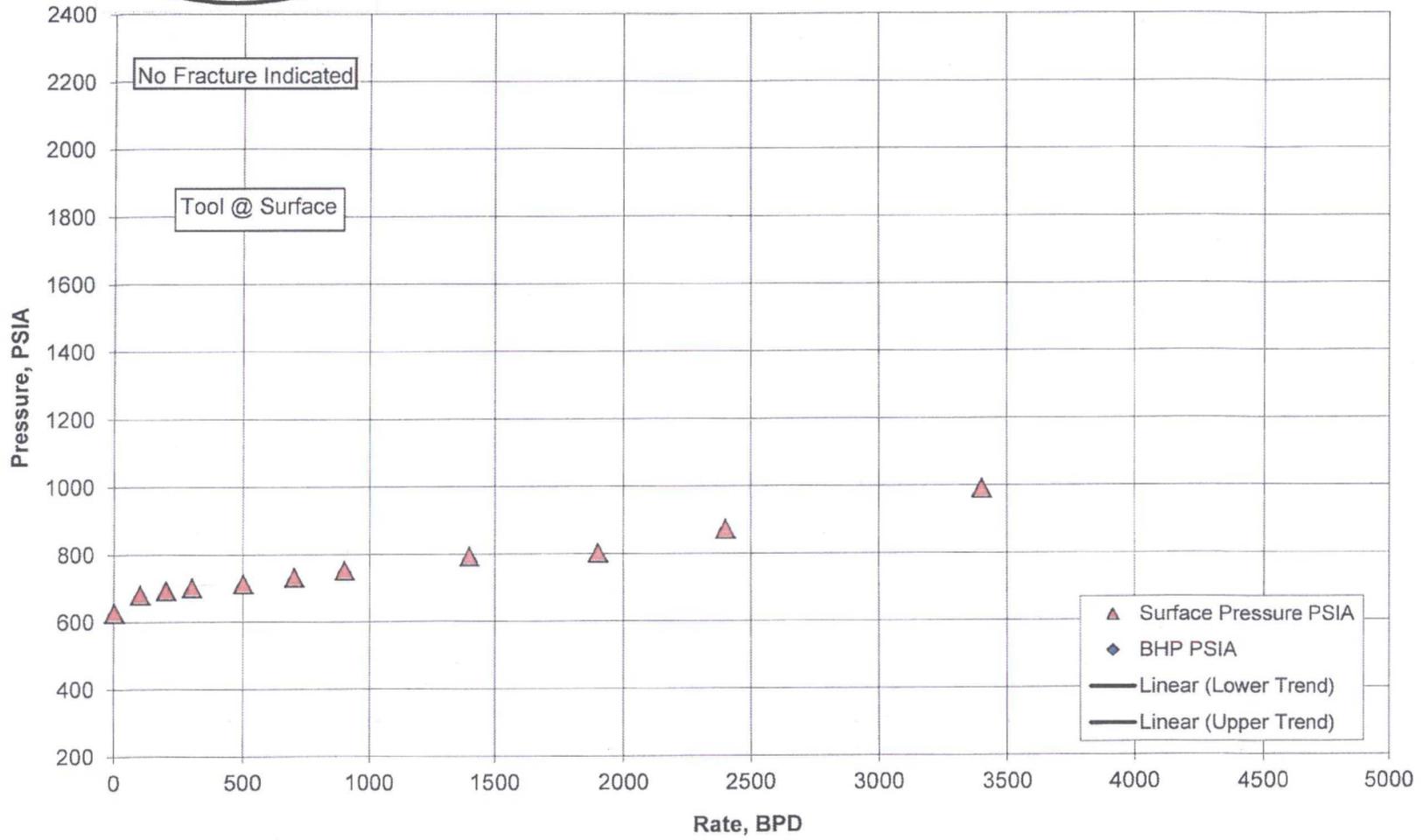
Sincerely,

~~Tyler Woodruff~~
~~Senior Landman~~

CC: Randy Dade, OCD District II Supervisor



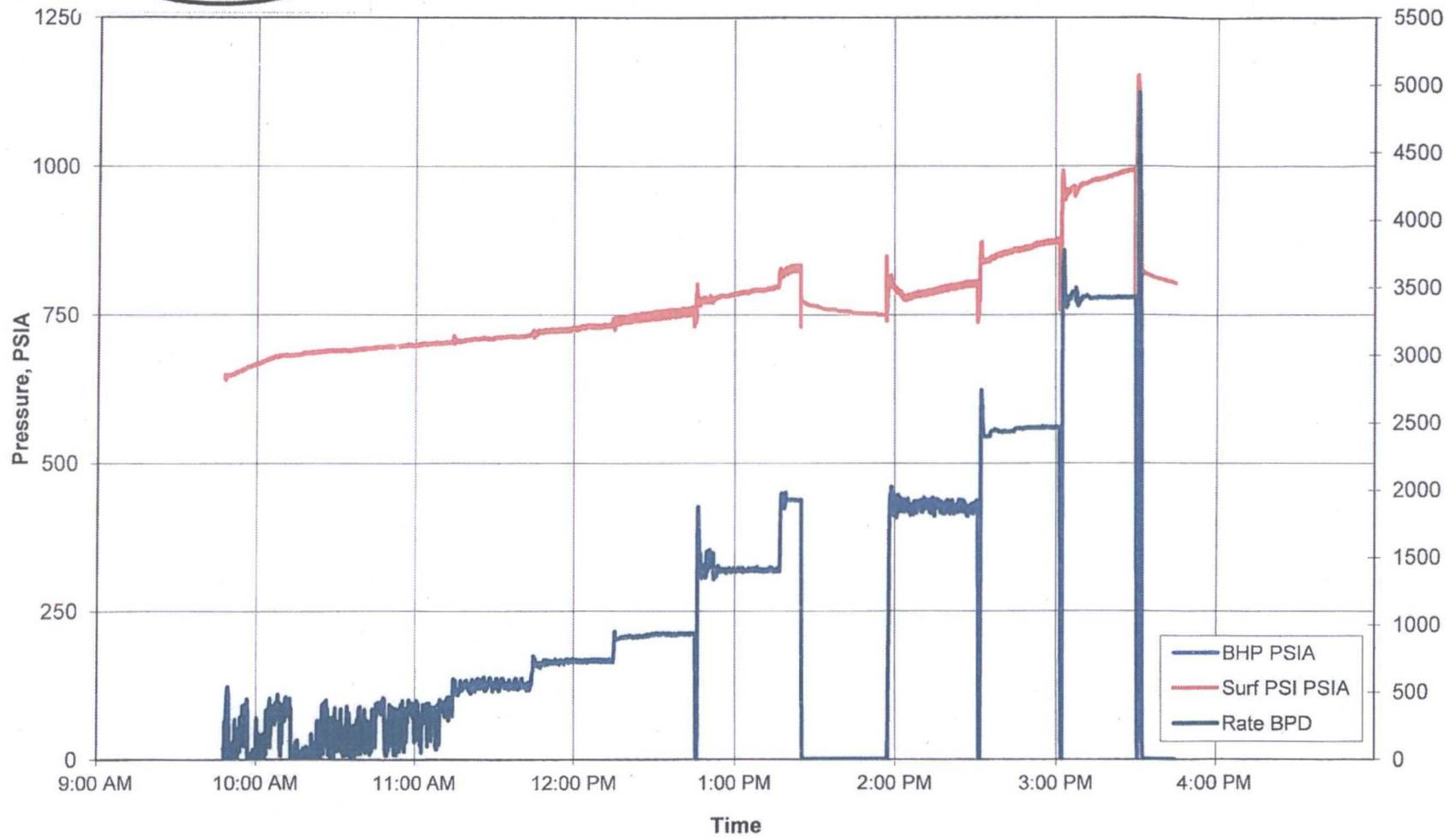
Alamo Resources WAGU # 4 Step Rate Test 11/11/2014



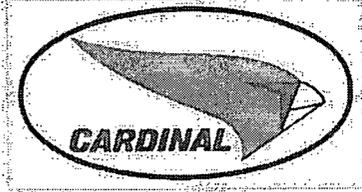
Surface, PSIA



Alamo Resources WAGU # 4
Step Rate Test 11/11/2014



Step-Rate Test



Cardinal Surveys Company

11/11/2014

No Fracture Indicated

Alamo Resources

WAGU # 4

N/A

Eddy County, New Mexico

SC File # 21982

Tool # 202

Downhole PSI Tool Ser. No:

Surface PSI Gauge Ser. No:

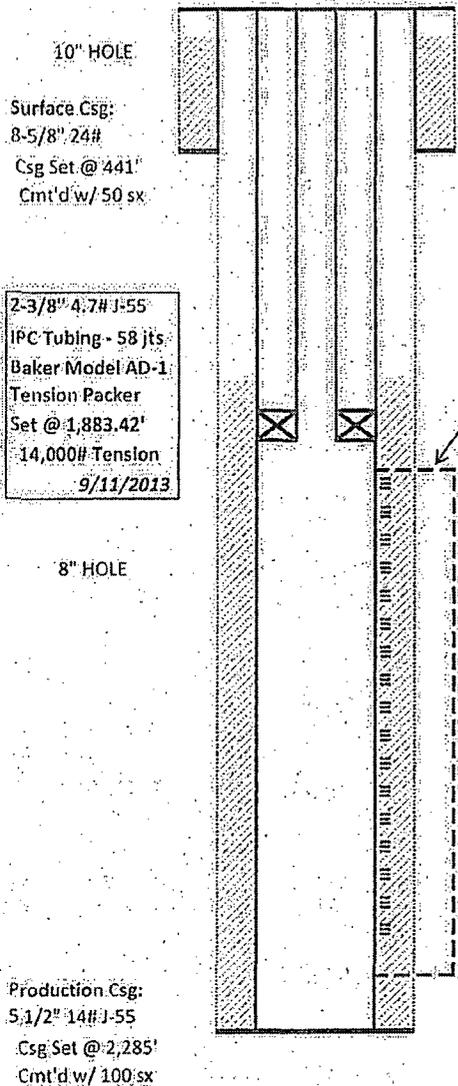
Tool @ Surface

Start Time	End Time	Rate BPD	Comments
1	8:33 AM	9:45 AM	0 9:45 Start Injection
2	9:45 AM	10:15 AM	100
3	10:15 AM	10:45 AM	200
4	10:45 AM	11:15 AM	300
5	11:15 AM	11:45 AM	500
6	11:45 AM	12:15 PM	700
7	12:15 PM	12:45 PM	900
8	12:45 PM	1:15 PM	1400
9	2:00 PM	2:30 PM	1900
10	2:30 PM	3:00 PM	2400
11	3:00 PM	3:30 PM	3400
12	3:30 PM	3:45 PM	0 Fall Off

ALAMO PERMIAN RESOURCES, L.L.C.
WELLBORE DIAGRAM

Lease/Well No.: **WAGU No. 004 WIW** ELEVATION, GL: 3,628 ft
 Location: 2,310' FNL & 990' FWL
 UL: E, SEC. 8 T: 18-S; R: 28-E FIELD: ARTESIA: QN-GB-SA
 EDDY County, NM
 LEASE No.: State B-11539 Spudded: 1/24/1958
 API No.: 30-015-02648 Drig Stopped: 2/20/1958
 Completed: 2/22/1958

CABLE TOOLS



TOC Est'd @ 87' Calc'd (75% SF)	TOPS	DEPTH, ft
441'	YATES	439
	SEVEN RIVERS	747
	QUEEN	1,404
	LOCO HILLS	1,964
	GRAYBURG	1,976
	SAN ANDRES	2,273

TOC Est'd @ 1,752'
Calculated (75% SF)

PROPOSED INJECTION INTERVAL for WAGU #004 WIW:
 1,964' - 2,273'
 INJECTION ZONES: LOCO HILLS, GRAYBURG, METEX, & PREMIER.

PERFS:	Zone	SPF - # Holes	Date
1966 - 1974'	GB - Zone 12	8' 7 spf - 52 holes	09/01/68
1992 - 1998'	GB - Zone 12	6' 2 spf - 10 holes	09/10/09
2004 - 2009'	GB - Zone 11	5' 2 spf - 10 holes	09/10/09
2010 - 2020'	GB - Zone 11	10' 4 spf - 40 holes	09/01/68
2021 - 2036'	GB - Zone 11	15' 2 spf - 30 holes	09/10/09
2040 - 2051'	GB - Zone 10	11' 2 spf - 22 holes	09/10/09
2064 - 2080'	GB - Zone 9	16' 2 spf - 32 holes	09/10/09
2090 - 2096'	GB - Zone 8	6' 2 spf - 12 holes	09/10/09
2102 - 2110'	GB - Zone 8	8' 4 spf - 32 holes	09/01/61
2128 - 2144'	GB - Zone 7	16' 2 spf - 32 holes	09/10/09
2144 - 2156'	GB - Zone 6	12' 2 spf - 24 holes	09/10/09
2156 - 2160'	GB - Zone 5	4' 2 spf - 8 holes	09/10/09
2174 - 2187'	GB - Zone 4	13' 2 spf - 26 holes	09/10/09
2196 - 2206'	GB - Zone 3	10' 4 spf - 40 holes	02/22/58
2220 - 2226'	GB - Zone 3	6' 4 spf - 24 holes	02/22/58
2234 - 2238'	GB - Zone 2	4' 4 spf - 16 holes	02/22/58
2244 - 2270'	GB - Zone 1	26' 2 spf - 52 holes	09/10/09
TOTALS:		176' -- 464 holes	

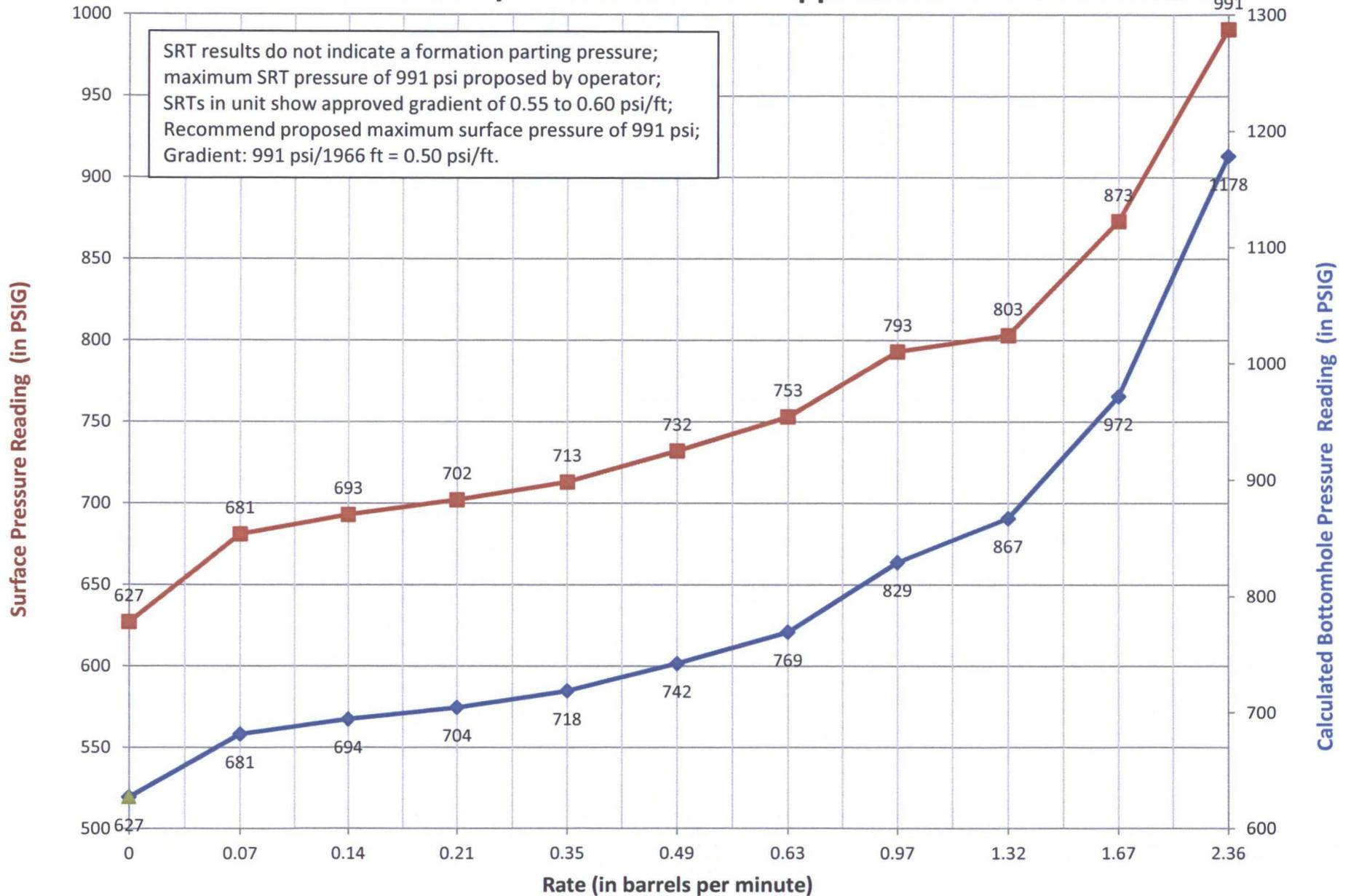
Production Csg:
 5 1/2" 14# J-55
 Csg Set @ 2,285'
 Cmt'd w/ 100'sx
 2,285' Csg
 2,279' PBTD (09/10/2013)
 2,290' TD

Originally Drilled as HUMBLE STATE #2 by Roach & Sheppard.
 Renamed WAGU Tract 2 #5 - 03/21/68 & WAGU Tract 2 #4 - 08/14/68.
 Initial Water Injection: 11/09/68 - pkr @ 2,058'. Inject down Tbg: Premier (2196-2206', 2220-26', & 2234-38'); & Metex (2102-10'). Inject down Annulus: "Old Field" (1966-74').
 Added perfs 09/10/2009 & Acidized, Re-Acidized Perfs: 10/23/2012 & 02/25/2014.

Cumulative Prod. (4/30/14):
 OIL 34.242 MBO
 GAS 75.068 MMCF
 WATER 0.000 MBW
 INJECT: 350.633 MBW

HPS: 06/26/2014

R-3357-C and WFX-928 / WAGU No. 4 - IPI Application - SRT 2014 Results



Eddy County, New Mexico

T18S-R28E

Alamo Permian Resources, LLC

West Artesia Grayburg Unit

Waterflood Project



West Artesia Grayburg Unit

Horizontal Scale:

One Mile



Map Key

- - Grayburg Producer (WAGU Number Posted)
- ▲ - Grayburg WIW (WAGU Number Posted)
- ⊗ / ⊘ - Plugged Grayburg Well
- - Alamo Permian Resources, LLC Leasehold

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 14611 Exhibit No. 3
Submitted by:
ALAMO PERMIAN RESOURCES, LLC
Hearing Date: March 17, 2011

Alamo Permian Resources, LLC
(2/14/2011)