

UIC - 1 - 5

EPA FALL-OFF TEST

DATE:

2014

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, December 16, 2015 9:47 AM
To: pthompson@merrion.bz
Cc: Griswold, Jim, EMNRD; Smith, Cory, EMNRD
Subject: Sunco Disposal Well No. 12014 and 2015 Fall-Off Test (FOT) Results (UICI-005)
International Reservoir Technologies, Inc. (IRTI)

Philana:

OCD has completed its review of the 2014 and 2015 Fall-off Pressure Test Analyses for the Sunco Disposal Well No.1 in San Juan County.

OCD concurs with the 2015 FOT findings (11/16/2015) of the operator's consultant, International Reservoir Technologies, Inc. (IRTI). The conclusion was that the FOT is affected by the wellbore storage and influence of an apparent highly conductive hydraulic fracture resulting in a linear flow regime, i.e., flow in a highly conductive hydraulic fracture. The pressure curve and semi-log derivative curve have the same slope and a half-slope is evident on both the pressure and derivative curves (~ 1/3 log cycle lower than pressure curve). Historical FOTs have indicated the presence of a fault boundary and even a dual fault boundary condition, but literature searches reveal no fault systems exist in the area. Estimated permeability is ~15.8 md with fracture half-length of ~467 ft. and extrapolated pressure of ~3,303 psig.

While similar conclusions were made for the 2014 FOT, the FOT permeability results were significantly lower or marginal and not reflective of actual permeability conditions in the injection zone based on other well data. OCD believes the 2014 FOT results are erroneous because the rate of injection and pressure did not adequately stress the injection zone. OCD updated its FOT records to validate the 2015 FOT results and rejected the 2014 FOT results.

OCD recommends in future FOTs that a pseudo-steady state injection rate be achieved, since IRTI noted this to be problematic.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/oed

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, November 24, 2015 2:26 PM
To: 'Ryan Davis'
Cc: Philana Thompson; Jeff Davis; Griswold, Jim, EMNRD
Subject: RE: Agua Moss, LLC (UICI-005) 2015 Sunco FOT Analysis
Attachments: SuncoDisposalWell1_FOT_2014 (1).pdf; SuncoDisposalWell1_FOT_2015.pdf

Mr. Davis:

The New Mexico Oil Conservation Division is in receipt of your e-mail message below with attached Fall-Off Test documentation and will respond soon.

Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Ryan Davis [mailto:rdavis@merrion.bz]
Sent: Tuesday, November 24, 2015 12:28 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Philana Thompson <pthompson@merrion.bz>; Jeff Davis <jdaguamoss@hotmail.com>
Subject: 2015 Sunco FOT Analysis

Carl,

We had a firm out Denver analysis the 2015 FOT data and also the 2014 FOT data. I have attached the analysis and we believe this validates our analysis for the 2015 FOT analysis. My intention is address the issues stated in the letter from the NMOCD dated 08/18/2015 and submit the third party analysis with the changes requested on the FOT. Please let me know if you have any questions or concerns.

Thanks,

Ryan Davis
Operations Manager



O:[505.324.5335](tel:505.324.5335)

C:[505.215.3292](tel:505.215.3292)



**2014 Fall-off Pressure Test Analysis
for the
Sunco Disposal Well #1
San Juan County, New Mexico**

**prepared for
Merrion Oil and Gas Corporation**

16 November 2015

**International Reservoir Technologies, Inc.
Lakewood, Colorado, USA**

**Tel. (303) 279-0877
Fax (303) 279-0936**



Sunco Disposal Well #1 2014 Fall-off Test Results

Summary:

An analysis was made of the 2014 fall-off test as a comparison to the analysis conducted of the 2015 test

The 2014 Sunco Disposal Well #1 pressure data indicated that the length of the shut-in test did allow the transient to just reach a stabilized flow period and that the well has a significant hydraulic fracture. Due to the non-constant injection rate the analysis is less certain than the 2015 test data and the calculated reservoir permeability and fracture half-length is less than was calculated for the 2015 data. The pressure transient effect of the frac plus the wellbore storage effects do obscure to some extent the reservoir property influences; however, a reasonable set of reservoir properties could be calculated. The conventional straight-line analysis for extrapolated pressure and the reservoir property calculations from the Horner and MDH type plots are acceptable.

- Estimated Kw (permeability) = 2.58 md (from MDH)
- Estimated skin = -4.93 (Horner) to -4.94 (MDH)
- Extrapolated pressure = 3128 (Horner) to 3214 psig (MDH)
- Fracture half-length = 234 feet (from derivative half-slope line)
- Radius of investigation = 482 feet (from MDH)

Larger versions of the plots appear at the end of this document.

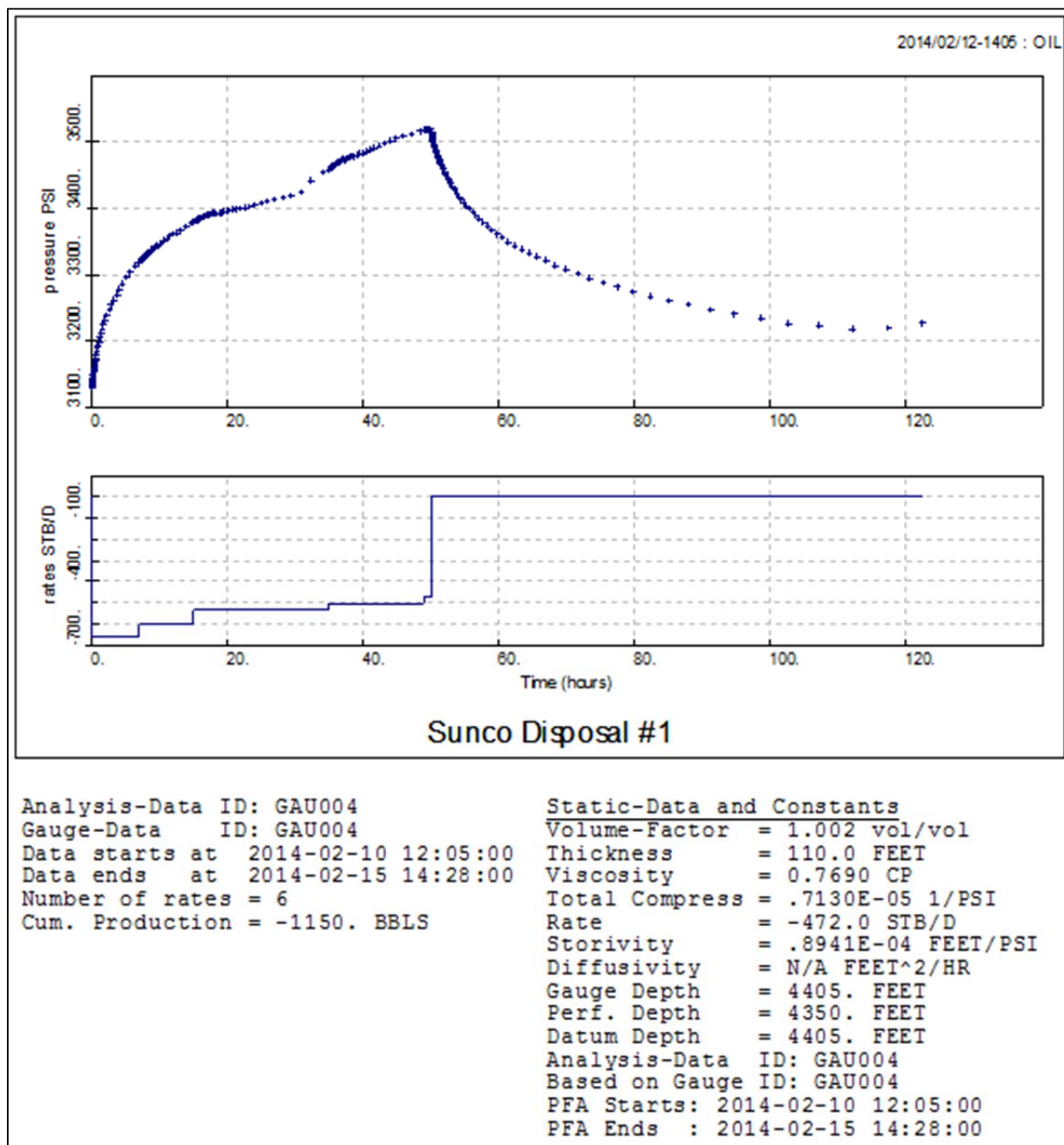
Input data and assumptions:

Assumptions:

- o Formation fluid properties equal injection water properties due to cumulative volume injected and miscibility of formation water and injection water
- o Reservoir temperature = 89 deg F
- o Porosity = 0.114 (fraction, estimated from density log)
- o Net pay = 110 feet
- o Rock compressibility = 4.50E-06 1/psi (correlation)
- o Wellbore radius = 0.506 ft
- o Wellbore volume total = 34.88 bbls (tubing = 24.79 bbls, casing = 10.09 bbls)
- o Wellbore compressibility = injection water compressibility = 2.63E-06 1/psi (from Osif correlation)
- o Injected water specific gravity = 1.017 (pure water = 1.0); density = 8.487 lb./gal, TDS = 30,900 mg/L
- o Injected water FVF = 1.0016 rb/stb (McCain correlation)
- o Injected water viscosity = 0.796 cp (McCain correlation)



DATA PLOT:

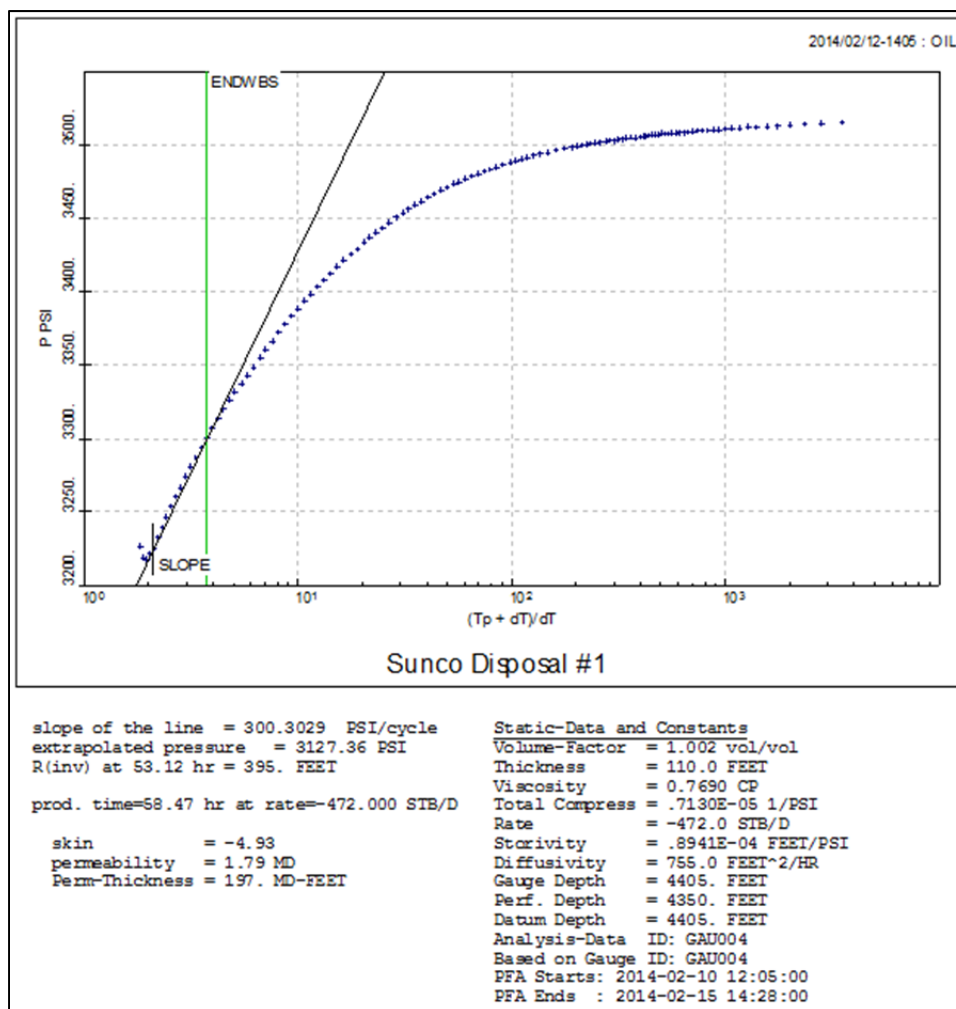




HORNER PLOT:

Conclusions: As the stabilized flow period was reached relatively late in the conventional straight-line extrapolation for the extrapolated pressure and the reservoir property calculations are less certain.

- Estimated extrapolated pressure = 3128. psig
- Estimated Kw (permeability) = 1.79 md
- Estimated skin = -4.93
- Radius of investigation = 396 feet

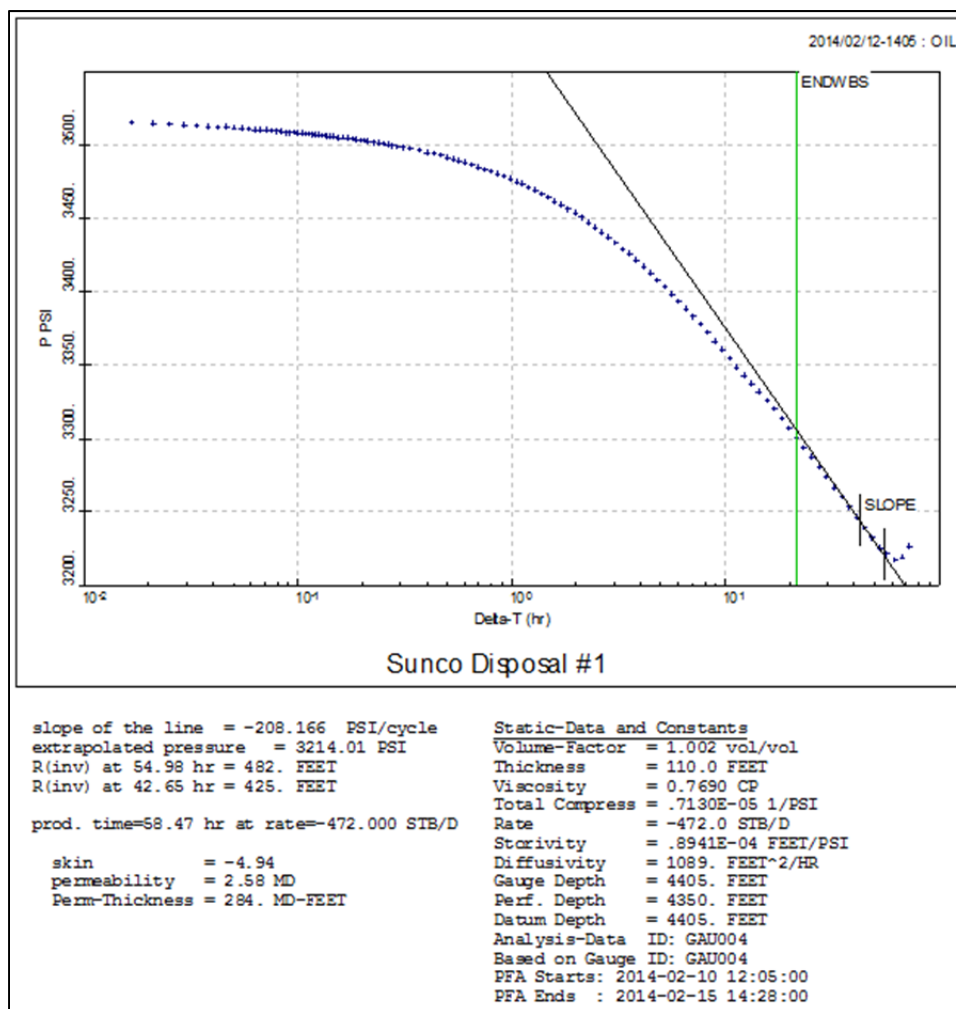




MDH PLOT:

Conclusions: Due to not reaching a pseudo steady state flow period, the conventional straight-line extrapolation for the reservoir property calculations is potentially not valid.

- Estimated extrapolated pressure = 3214 psig
- Estimated Kw (permeability) = 2.58 md
- Estimated skin = -4.94
- Radius of investigation = 482 feet

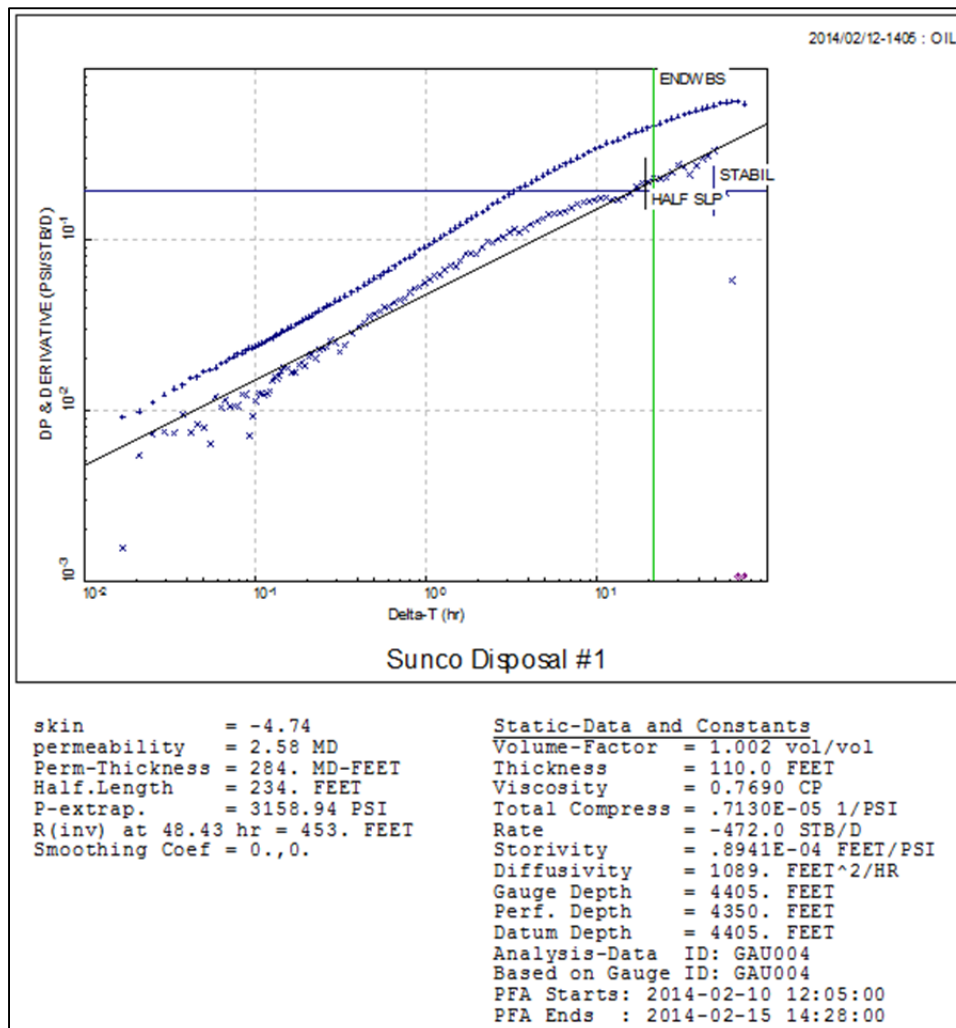




DERIVATIVE PLOT:

Conclusions: The behavior of the derivative curve is affected by the wellbore storage and the influence of an apparent hydraulic fracture. The data does appear valid. Also the plot indicates that the length of the shut-in test was sufficient to just reach a stabilized period. A half-slope is shown in the derivative curve which is characteristic of linear-flow due to a hydraulic-fracture. The calculated half-length for the fracture was 234 feet. There is no clear indication of a boundary or fault.

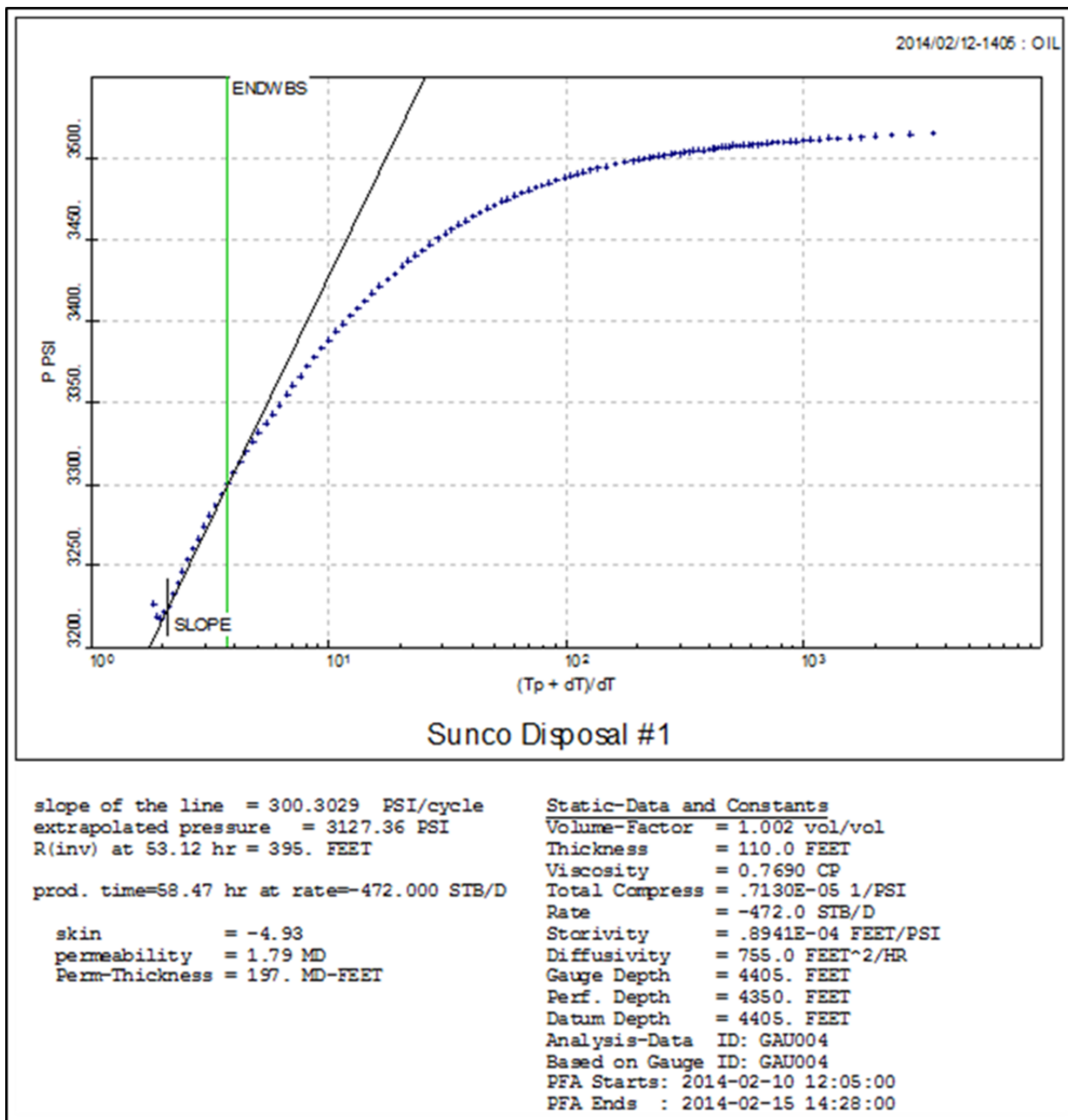
- Estimated Kw (permeability) = 2.58 md
- Fracture half-length = 234 feet
- Estimated extrapolated pressure = 3159 psig





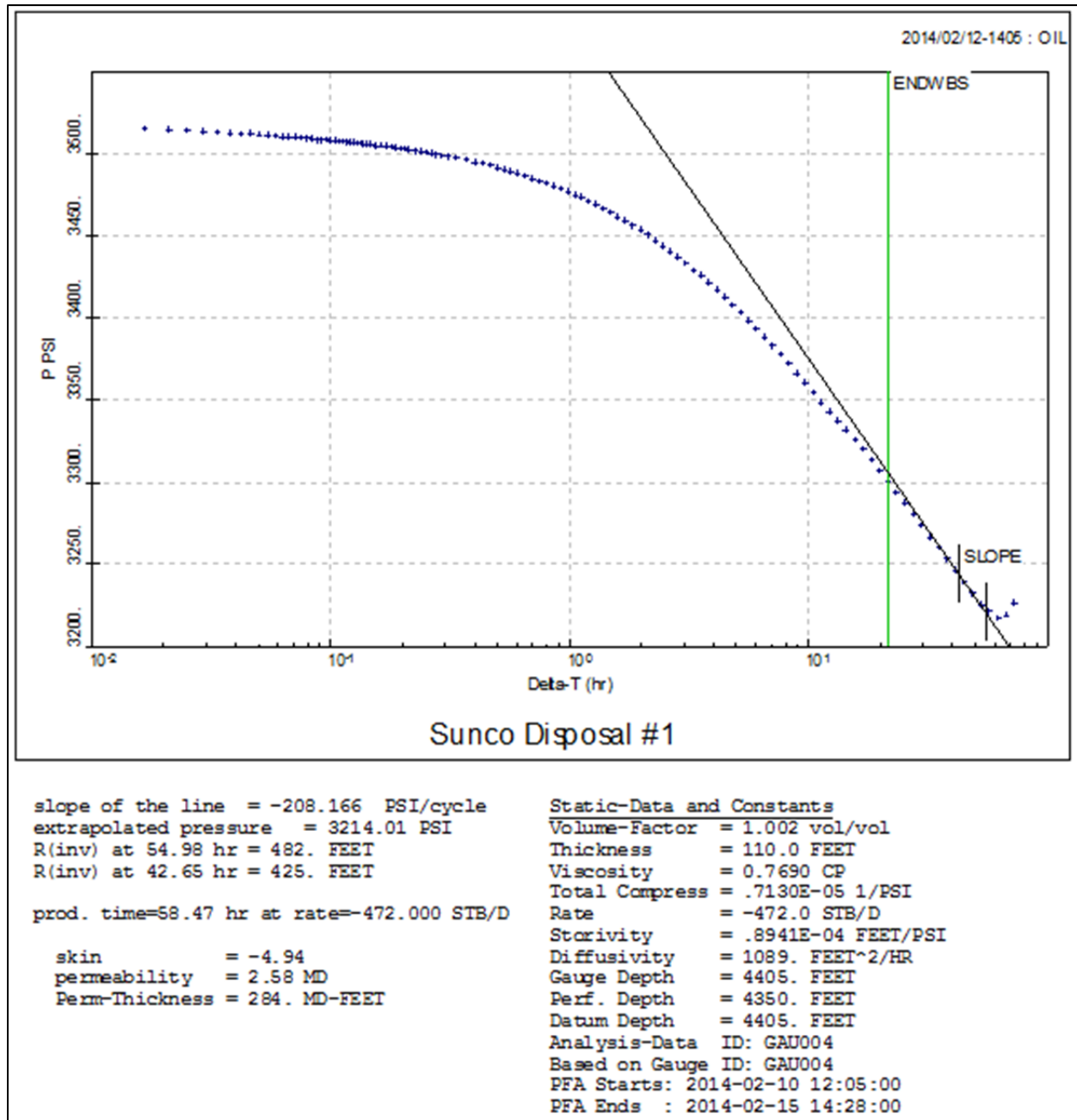
ENLARGED PLOTS:

HORNER PLOT:



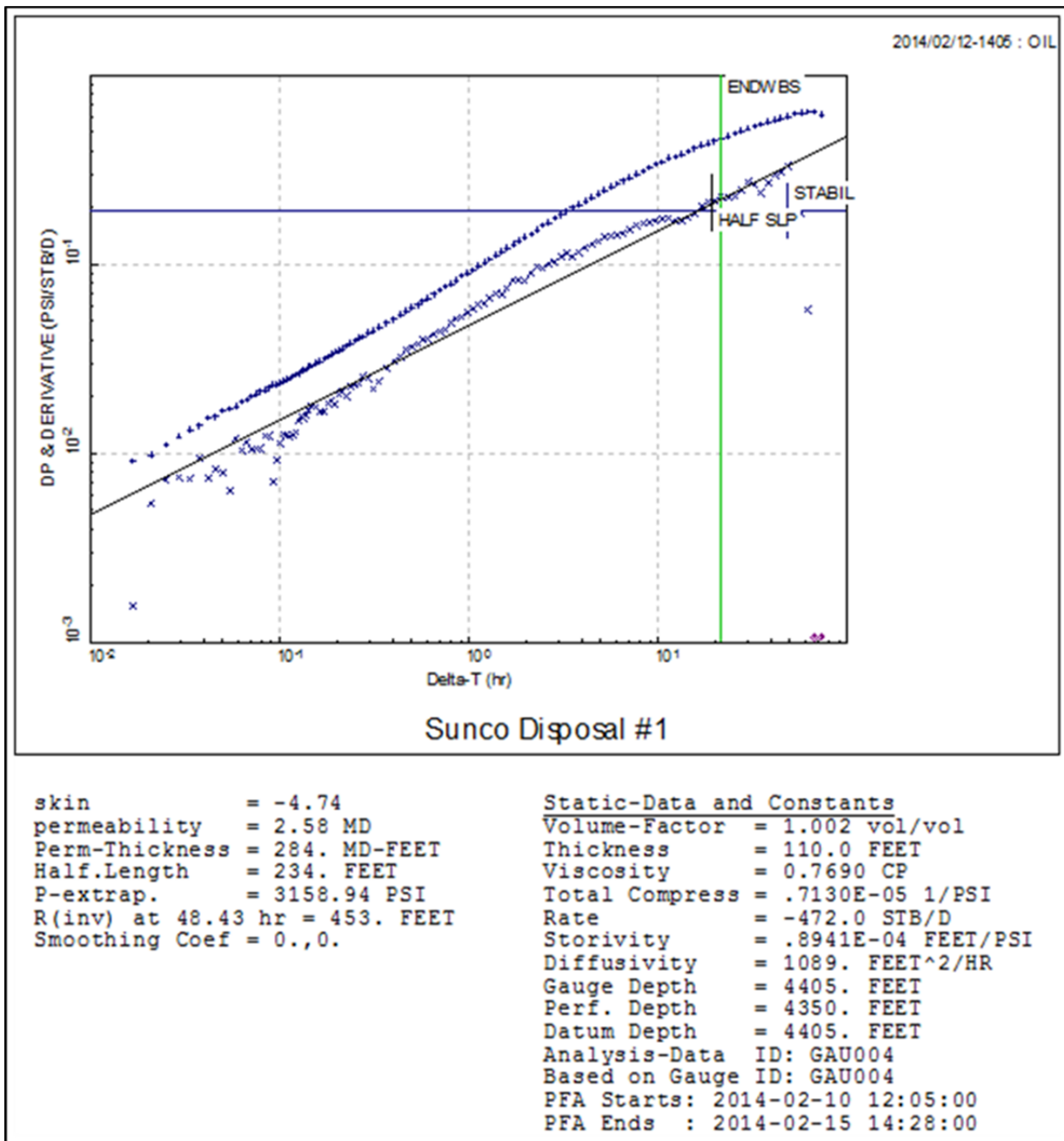


MDH PLOT:





DERIVATIVE PLOT:



State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



July 9, 2014

Mr. Jeff Davis
Agua Moss LLC
P.O. Box 600
Farmington, New Mexico 87499

Re: SUNCO Disposal Well No. 1 (UICI-005) API# 30-045-28653 Fall-Off Test 2014 Review (San Juan County)

Mr. Davis:

The New Mexico Oil Conservation Division (OCD) completed its review of the Fall-Off Test (FOT) conducted in February of 2014 and in consideration of subsequent communications, supplemental analysis, and revisions received on June 27, 2014.

OCD met with Agua Moss LLC (owner) and representatives of Merrion Oil & Gas (operator) in Santa Fe on May 22, 2014 where OCD communicated some preliminary observations on the above subject FOT with a request for the operator to resubmit some information and propose a date for the next FOT. OCD hereby **approves** the proposed date of April of 2015 for the next FOT.

OCD has the following FOT observations, comments, recommendations and conclusions:

Observations:

- 1) The FOT showed a pressure differential from pseudo-state injection at shut-off until the end of monitoring of ~ 293 psi.
- 2) A pseudo steady-state injection rate (PSSIR) of 13.5 gpm was utilized for the FOT by the operator that is ~ 10% of the PSSIR used in the 2010 FOT (~ 130 gpm), and did not appear to adequately stress the injection zone enough to generate accurate "Horner" and "Log-Log Derivative Pressure" (i.e., create the pressure buildup and fall-off needed to generate a typical log-log derivative pressure curve, radial condition and/or to observe any boundary conditions) Plots to derive accurate injection zone characteristics.
- 3) It is interesting that at such a marginal PSSIR (~ 13.5 gpm) the pressure in the injection zone realized a significant pressure differential or drop of ~ 293 psi. While it is good to realize the pressure drop, there may be some concern by the operator about the well's ability to handle higher injection rates, i.e., 130 gpm, within the OCD Permit Maximum Surface Injection Pressure (MSIP) limit of 2,400 psi. The quarterly injection reports 2013 – 2014 seem to indicate increasing MSIPs under marginal injection rates. The section, "Recommendations" No. 1 below may be necessary.
- 4) The radius of influence from the FOT was calculated to be only ~ 386 ft. from the well. Based on the Horner Plot, a marginally increasing slope with flat plateau or radial flow condition was achieved at ~ 1,000 hrs.

Comments:

- 1) FOTs are not considered to be Mechanical Integrity Tests. FOTs are valuable in assessing changes in injection zone and/or well bore conditions over the operating life of the injection well.
- 2) The growth of any fracture(s) should not be occurring under the prescribed MSIP and operating conditions. The half-fracture calculation indicated that the fracture decreased in size from the size calculated during FOT 2010, which does not typically occur. Half-fracture lengths should not be decreasing in size, since once a fracture is propagated, the length remains constant until growth occurs.
- 3) Based on the submitted Horner Plot, attainment of a radial flow condition appears to be questionable.
- 4) Table 1 Daily Injection Volumes are lacking units to discern true volumes and flow rate values represented in the table.
- 5) OCD believes that increasing the pseudo steady-state injection rate to ~ 4,500 bbl/day or 130 gpm will stress the injection zone and create the pressure build-up needed to obtain accurate injection zone characteristics information, i.e., presence of boundaries, permeability, radial flow, etc.

Recommendations:

- 1) Operators typically clean up the wellbore before conducting a FOT to ensure it is the injection zone that is being evaluated and not the wellbore.
- 2) The operator should plan of increasing the pseudo steady-state injection rate to about 130 gpm (similar to the 2010 FOT) for the next FOT. A review of the historical plot of injection rate vs. the surface injection pressure over time may help the operator to evaluate section "Recommendations" No. 1 above and whether the well is capable of handling 130 gpm.
- 3) The Horner Plot is a semi-log plot. Based on the operator submittal, the Y-Axis (Pressure) was not logarithmic.

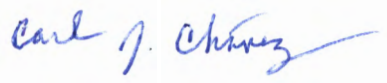
Conclusions:

- 1) The accuracy of the derived injection zone characteristics is in question based on the FOT.
- 2) The PSSIR needs to be ramped up to the rate achieved in the FOT 2010 (~ 130 gpm) in order to stress the injection zone enough to exhibit pressure build-up, radial flow condition, and identify any boundary conditions that may be present at significant distance from the well. Past FOTs have identified boundary conditions.
- 3) Fractured flow conditions generally result in a linear flow condition with half-fracture size estimation, which may verify that any fractures are not growing under operational conditions.
- 4) OCD notices that the injection zone appears to be accepting fluids at the operator's marginal rates of injection and within the MSIP stipulated in the OCD Permit. However, OCD is unsure the formation could handle higher rates of injection if the injection volume and rate increased significantly, i.e., 130 gpm.
- 5) However, OCD noticed the bottom hole pressure differential was ~ 293 psi, which was significant, but was realized at a marginal injection rate of ~ 13.5 gpm. While the pressure drop is good (> 100 psi), there may be concerns about achieving a maximum injection rates into the well under operational conditions based on increasing pressure buildup in the injection well.
- 6) The proposed FOT for April of 2015 appears to be in order. Once the operator achieves better FOT results, another FOT may not be required for the duration of the permit.

Please contact me at (505)-476-3490 or E-mail CarlJ.Chavez@state.nm.us if you have any questions.
Thank you.

July 9, 2014
Page 3

Respectfully,

A handwritten signature in blue ink, reading "Carl J. Chávez", with a long horizontal flourish extending to the right.

Carl J. Chávez
Environmental Engineer

CC: OCD Aztec Office

Chavez, Carl J, EMNRD

From: Ryan Davis <rdavis@merrion.bz>
Sent: Friday, June 27, 2014 4:07 PM
To: Chavez, Carl J, EMNRD
Cc: Philana Thompson; Jeff Davis; George Sharpe
Subject: Re: Sunco Disposal MIT/FOT
Attachments: 2014-06-27 Sunco (Supplemental Analysis).pdf; 2014-06-27 Sunco (2014 FOT-Revised).pdf

Carl,

We have review and revised the 2014 falloff test for the Sunco SWD #1 Class I disposal. Attached you will find a supplemental analysis performed to calculate the frac half length and compare results from previous tests. This analysis along with some other minor revisions were inserted into the revised report, also attached.

Summary of revisions and findings:

- The 2010 Key FOT injection rate was 4500 bwpd and they did achieve radial flow.
- The lower perm is attributed to the lower injection rate. Perm is dependent on the slope of the Horner plot and rate.
- The bottom hole pressure was added to the pressure/rate plot.
- The pressure/rate plot was extended to show the injection period and falloff period.
- Correct units seemed to be found on all plots and calculations
 - *if there are any specific examples of incorrect units or lack of units, please provide and we will correct
- The analysis indicated we reached radical during the 2014 test

Moving forward we would like to proposed performing the next falloff test in the spring of 2015 (April 2015) with results submitted by June 2015.

Please let me know if you have any questions.

Thanks,

Ryan Davis

Operations Manager



O:505.324.5335

C:505.215.3292

On Tue, Apr 15, 2014 at 4:38 PM, Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us> wrote:

Ryan:

Received. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

O: [\(505\) 476-3490](tel:(505)476-3490)

E-mail: CarlJ.Chavez@State.NM.US

Web: <http://www.emnrd.state.nm.us/ocd/>

“Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?” To see how, please go to: “Pollution Prevention & Waste Minimization” at <http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>



From: Ryan Davis [mailto:rdavis@merrion.bz]

Sent: Tuesday, April 15, 2014 1:17 PM

To: Chavez, Carl J, EMNRD

Cc: Philana Thompson; Jeff Davis

Subject: Re: Sunco Disposal MIT/FOT

Carl,

Attached is the 2014 Falloff Test for the Sunco SWD #1 operated by Agua Moss, LLC. The analysis was performed by George Sharpe, who performs Merrion's reservoir engineering. Please let us know if you have any questions. Sorry for the delay.

Thanks,

Ryan Davis

Operations Manager



O:[505.324.5335](tel:505.324.5335)

C:[505.215.3292](tel:505.215.3292)

On Tue, Apr 15, 2014 at 9:29 AM, Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us> wrote:

As long as it does not exceed 2MB, OCD's ISP should accept the email w/ attachment. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

O: [\(505\) 476-3490](tel:(505)476-3490)

E-mail: CarlJ.Chavez@State.NM.US

Web: <http://www.emnrd.state.nm.us/ocd/>

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From: Philana Thompson [mailto:pthompson@merrion.bz]
Sent: Tuesday, April 15, 2014 9:28 AM

To: Chavez, Carl J, EMNRD

Cc: Ryan Davis; Jeff Davis

Subject: Re: Sunco Disposal MIT/FOT

carl i am in albq at a air quality training. i think ryan was just going to scan it in so he can email it.

Philana Thompson

Merrion Oil & Gas

Sent from my iPhone

On Apr 15, 2014, at 9:26 AM, "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us> wrote:

Ryan:

Good morning. Agua Moss has a FTP folder with OCD's SFTP Website and I know Philana is familiar with it. You should be able to create a "FOT" folder under Agua Moss and paste the pdf document into the folder for OCD retrieval.

Please let me know once you have placed the document in the folder. I will confirm when I access it.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

O: [\(505\) 476-3490](tel:5054763490)

E-mail: CarlJ.Chavez@State.NM.US

Web: <http://www.emnrd.state.nm.us/ocd/>

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<image001.png>

From: Ryan Davis [<mailto:rdavis@merrion.bz>]

Sent: Monday, April 14, 2014 4:32 PM

To: Chavez, Carl J, EMNRD

Cc: Philana Thompson; Jeff Davis

Subject: Re: Sunco Disposal MIT/FOT

Carl,

I ran into a couple snags today. I will have the final copy of the FOT results ready to ship out tomorrow. Re-organizing a few things to match up with your template for the report components and making sure everything is referenced. Can I email the final copy directly to you?

Thanks,

Ryan Davis

Operations Manager

<~WRD000.jpg>

O:[505.324.5335](tel:505.324.5335)

C:[505.215.3292](tel:505.215.3292)

On Fri, Apr 11, 2014 at 7:31 AM, Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us> wrote:

Ryan:

No problem. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

O: [\(505\) 476-3490](tel:(505)476-3490)

E-mail: CarlJ.Chavez@State.NM.US

Web: <http://www.emnrd.state.nm.us/ocd/>

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<image001.png>

From: Ryan Davis [mailto:rdavis@merrion.bz]

Sent: Friday, April 11, 2014 7:26 AM

To: Chavez, Carl J, EMNRD

Cc: jeff davis; Philana Thompson; Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD
Subject: Re: Sunco Disposal MIT/FOT

Carl,

My apologies on the delayed submission of the FOT. The data has been analyzed and has been on my desk for review. We will have the FOT results submitted to the NMOCD by end of business Monday 04/14/2014. Again my apologies for the delay.

Ryan Davis

C: [505.215.3292](tel:505.215.3292)

Merrion Oil & Gas

Sent from my iPhone

On Apr 11, 2014, at 6:34 AM, "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us> wrote:

Jeff:

Good morning. OCD requests to know the status of the Fall-Off Test?

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

O: [505\) 476-3490](tel:505.476.3490)

E-mail: CarlJ.Chavez@State.NM.US

Web: <http://www.emnrd.state.nm.us/ocd/>

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<image001.png>

From: jeff davis [<mailto:jdaguamoss@hotmail.com>]
Sent: Friday, February 07, 2014 1:58 PM
To: Chavez, Carl J, EMNRD
Cc: Ryan Davis; Philana Thompson
Subject: Sunco Disposal MIT/FOT

Carl, Just dropping you line to let you know that we have finish the remedial work on our well and will resume with the MIT Monday the 10th of Feb. Fallowed with the FOT. I have let the Farmington office know as well. Any questions or concerns please let me know. Thanx Jeff Davis Manager Agua Moss
[505 330 1617](tel:5053301617)



June 25, 2014

Supplemental Analysis

Sunco Saltwater Disposal Well #1

UIC Permit # UICI-5-0

Section 2 T29N R12W API 30-045-28653

San Juan County, NM

To whom it may concern:

At the request of the NMOCD, a supplemental analysis was done to a) include fracture diagnostics, and b) to discuss the differences in the analysis results from this March 2014 falloff compared to the 2010 and other past falloff tests.

Fracture Analysis Results

Attached is a revised derivative plot and a fracture diagnostic plot. It appears that from 9 hours to approximately 53 hours into the test, the flow is characteristic of a finite conductivity fracture. Based on the 53 hours to begin radial flow, the fracture half length was calculated to be 336 feet.

Comparison with past Falloff Tests

	<u>2014</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>
Inj Rate – BPD	739	4500	??	??	??
P* - psi	3135	3231	3242	3176	3258
K – md	3.36	13.6	10.2	20.7	17.5
S	-4.1	-7.18	-7.23	-6.79	-6.93
Radius of Inv - ft	386'	1450	1250	1750	1620
Frac 1/2 lngth – ft	336'	893	926	596	688
Boundary	none seen	dual	755'	987'	none

Agua Moss did not conduct the prior tests and is relying on the 2010 report submitted by Key Energy, the prior operator, for the prior results. In comparing the results, there are a number of observations to make:

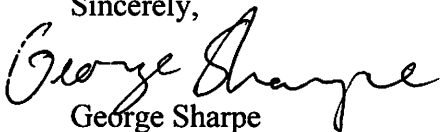
1. Pressure transient analysis is not an exact science, and the results are non-unique. All the calculated parameters vary significantly from year to year. One interpretation sees a boundary, the next one sees TWO boundaries, and one sees no boundary. The bottom line is that two different interpreters may come up with different results looking at the same data set, and even the same interpreter will come up with different results as data sets vary from year to year. Therefore, to a great extent, one must make qualitative conclusions from the analysis, without putting too much weight into the absolute numbers.

2. This well had been shut in for a period of time before the latest falloff test was performed by Agua Moss. The slightly lower P^* suggests that there has been some pressure dissipation in the reservoir during the shut in time. That is a good sign, indicating the disposal zone has a lot of capacity to accept fluids.
3. The injection rate in the 2010 test was 4500 BPD, while we were only able to inject 739 BPD during the 2014 test. Because the injection rate drives the calculations, the *calculated* permeability was less and the *calculated* skin factor was greater than in past tests. All *calculated* radius are driven by the permeability used in the equation. Because the permeability used in the 2014 analysis was significantly less than prior analysis, *the calculated* radius of investigation and *fracture* half length both come up significantly lower.

In summary, it appears that the disposal zone is in good shape and can take lots of water. As long as the surface pressure limitations keep us below fracture pressure, injecting into the well at the current injection rates will not damage the reservoir or migrate into other zones.

Please let me know if you have any questions or need further information.

Sincerely,

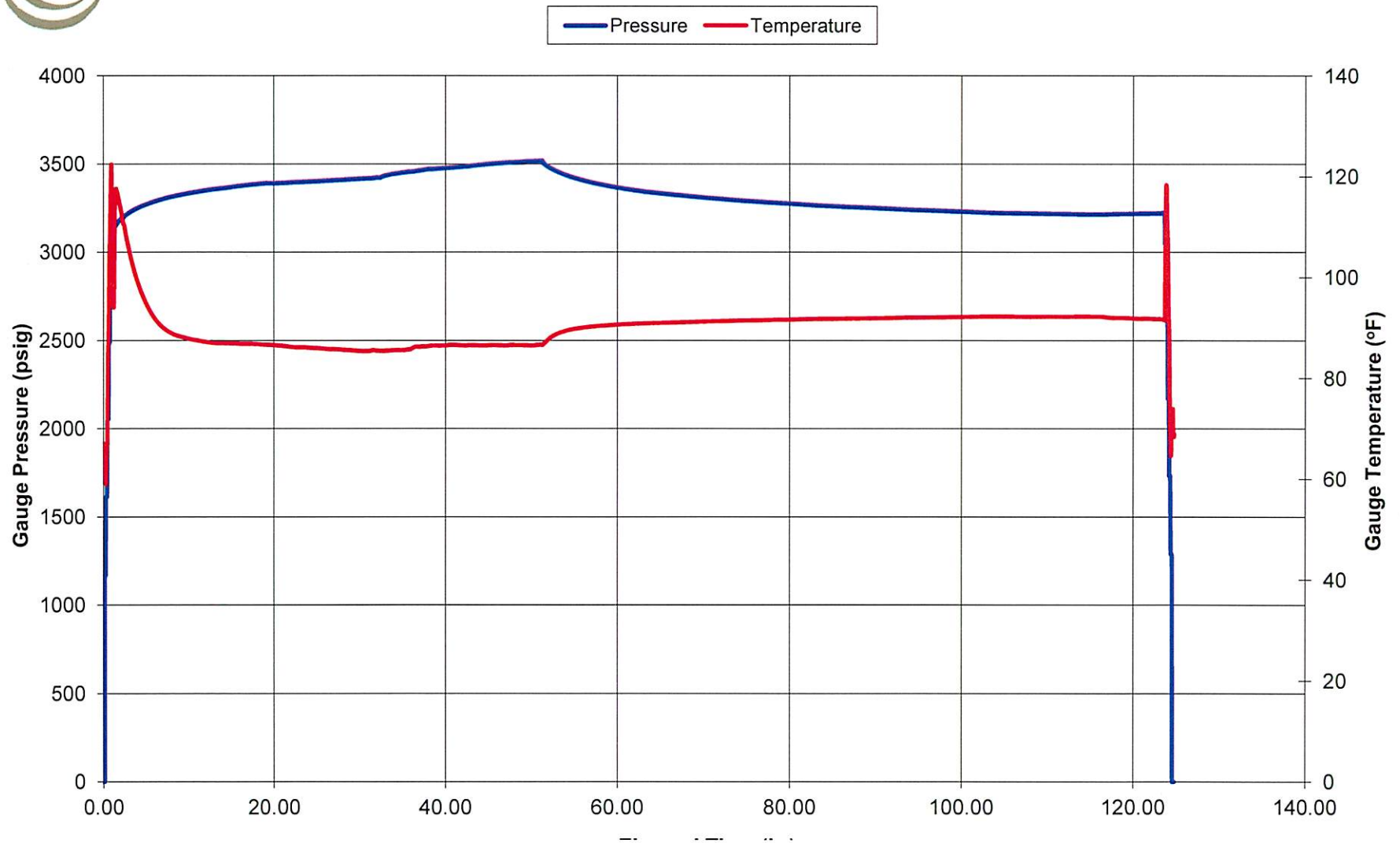


George Sharpe
Manager, Oil & Gas Investments
505-324-5314
gsharp@merriion.bz

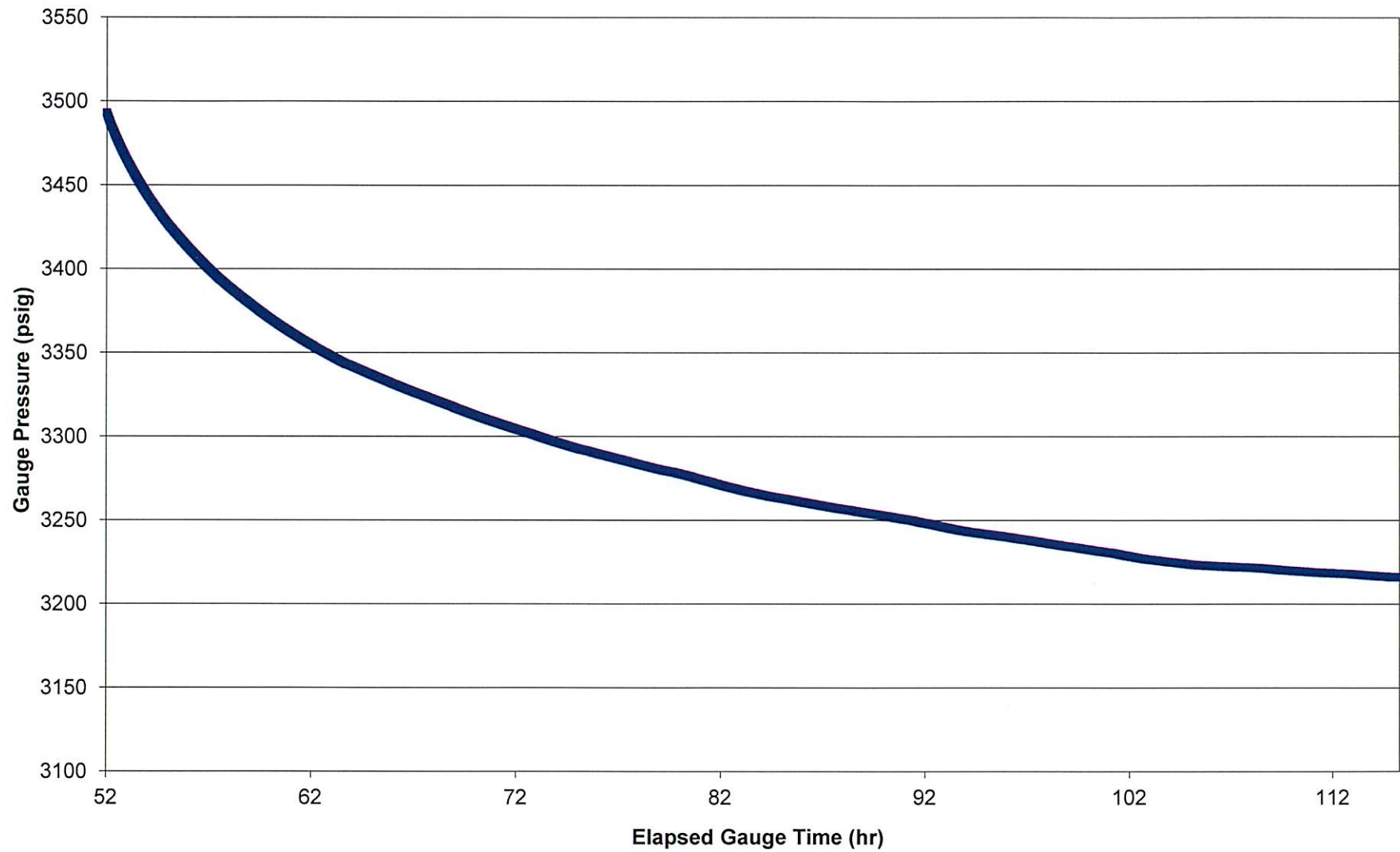
Falloff Test Calculations					BHP	3,520	
Lease Name		Sunco SWD					
Field Name		Mesaverde					
Test Date		02/10/14					
Cum Injection		1,539	Bbls				
Injection Period		50	hours				
Ave Inj Rate		739	BWD	Cum Inj	1.54E+03	Bbl	
Water specific gravity		1.00		Rate	739	Bbl/day	
			Inj Time	50	hrs	Average pres	3,328 psi
			Water vis	1.0000	cp	Drainage radius	2,980 ft
			Bw	1.00000	RB/ surf bbl		
Reservoir temp		173	°F				
Acres		640				Compressibility water	3.00E-06
I. Calculation of kh (md-ft) and k (md)						Compress formation	3.65E-06
Slope (psi/cycle)		325	(1)			System Comp.	0.000007
Pwf		3,520	psi	KH	369.587	md-ft	
Pressure star (		3,135	psi	Kw	3.360	md	
Net thickness		110	ft	KH/u	370		
II. Calculation of Skin Effect and Pressure Loss Due to Skin							
Porosity		0.200	frac				
Well bore radius		0.33	ft	Skin	-4.12	LN(rwa/rw)	
P one hour		3,700	(2)	Pseudo skin	(1,166)	psi	
Water saturation		1.00	frac	Flow Efficiency	403%	(Pwf-Dpskin - Pstatic)/(Pwf-Pstatic)	
Injection Time		50	hr				
Time to Reach Radial		0.003	hr	(200000+12000*S)*Ct/(kh/u)			
Radius of Investigation		326	ft	0.029*(kt/Por*u*Ct)^.5			
Shut In Time		70	hr				
Time to Reach Radial		0.001717	hr	170000*Ct*exp^(.14*S)/(kh/u)			
Radius of Investigation		386	ft	0.029*(kt/Por*u*Ct)^.5			
Time to end of Frac Flow		53	hr				
Frac Half Length		336		0.029*(kt/Por*u*Ct)^.5			
Radial flow reached in less than one hour. Horner straight line starts 53 hours							
Finite Conductivity Fracture of approximately 336' half length							



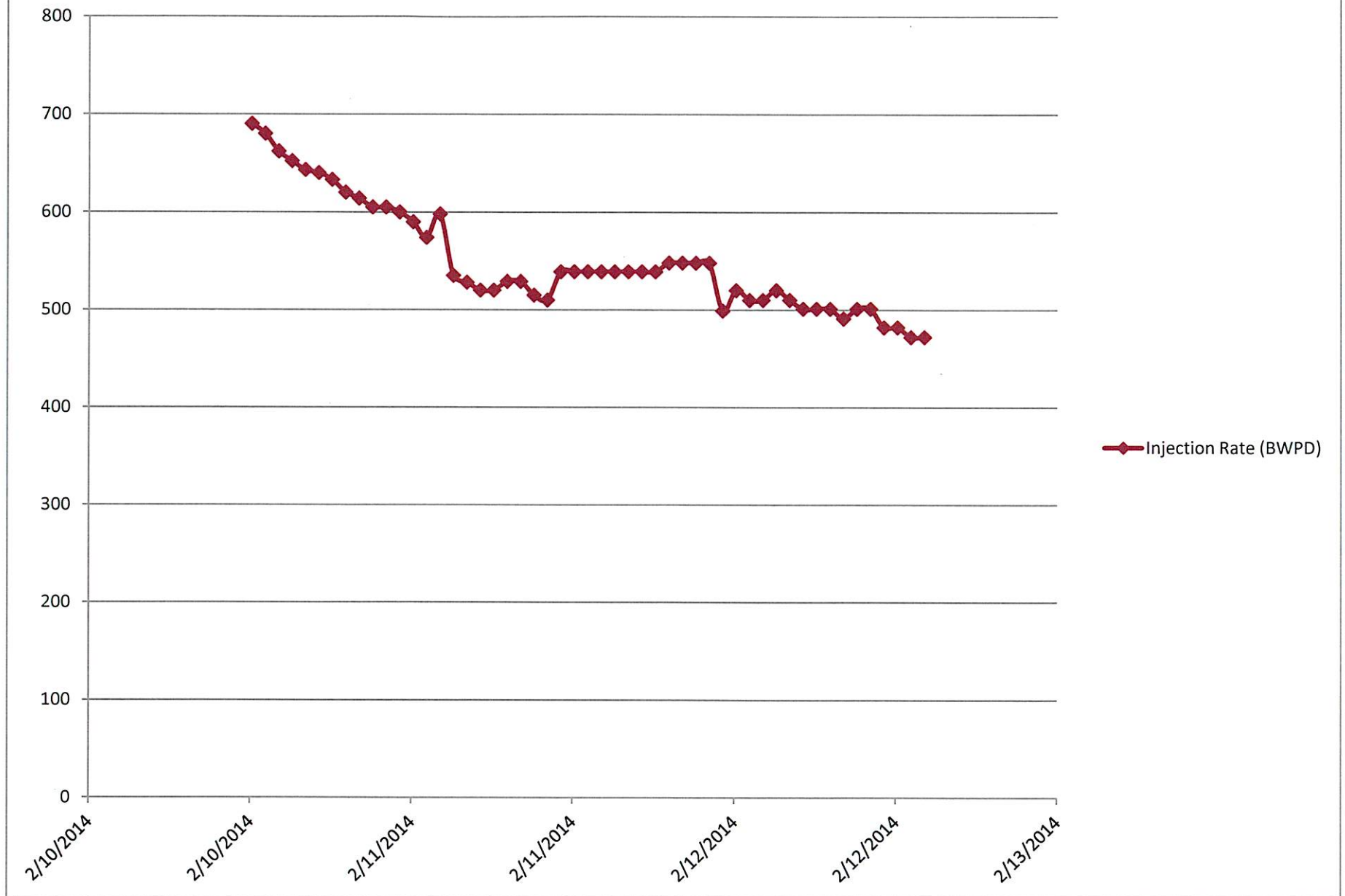
Sunco SWD #1 Falloff - February 2014



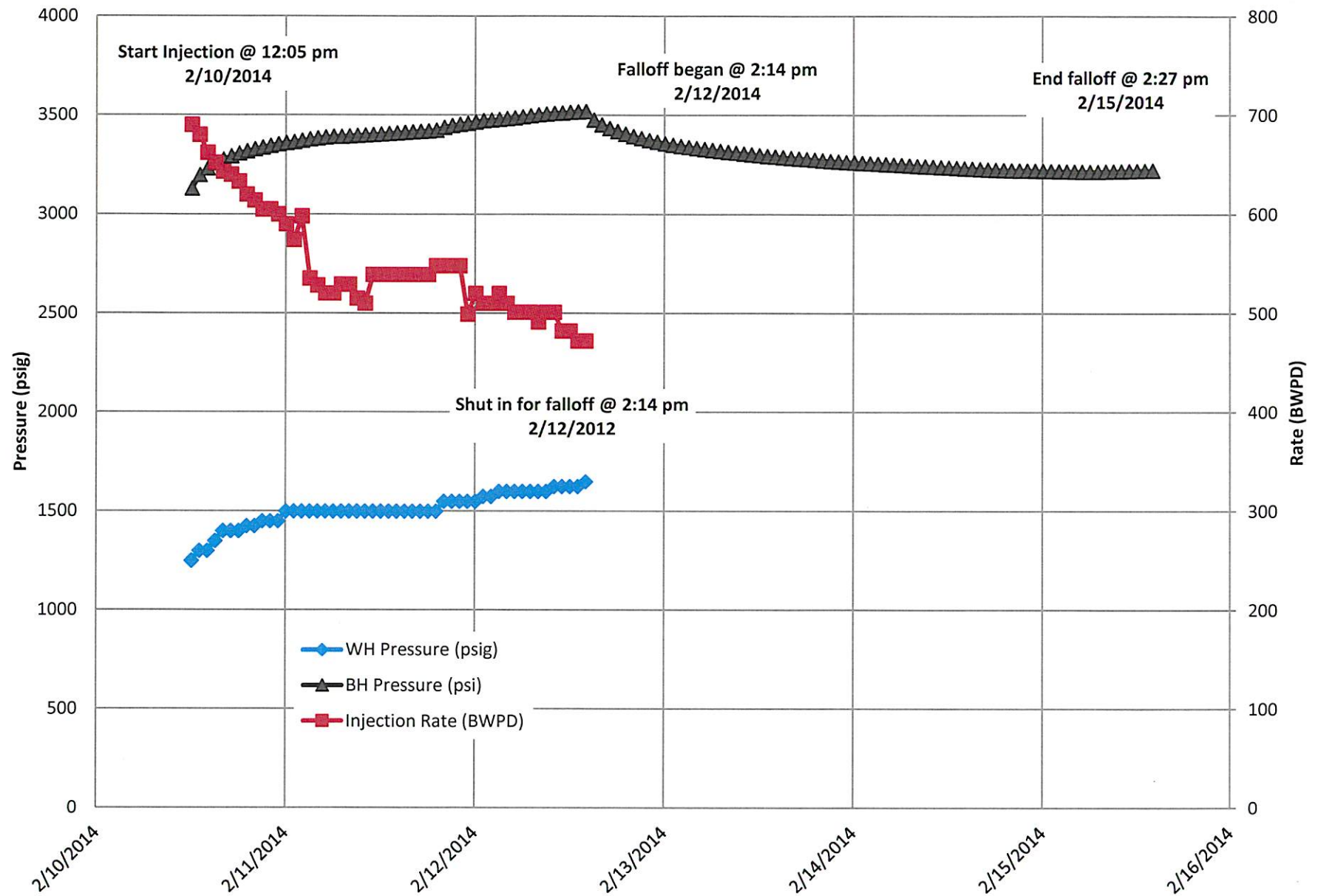
Sunco SWD #1 Falloff - February 2014



Injection Rate vs. Time

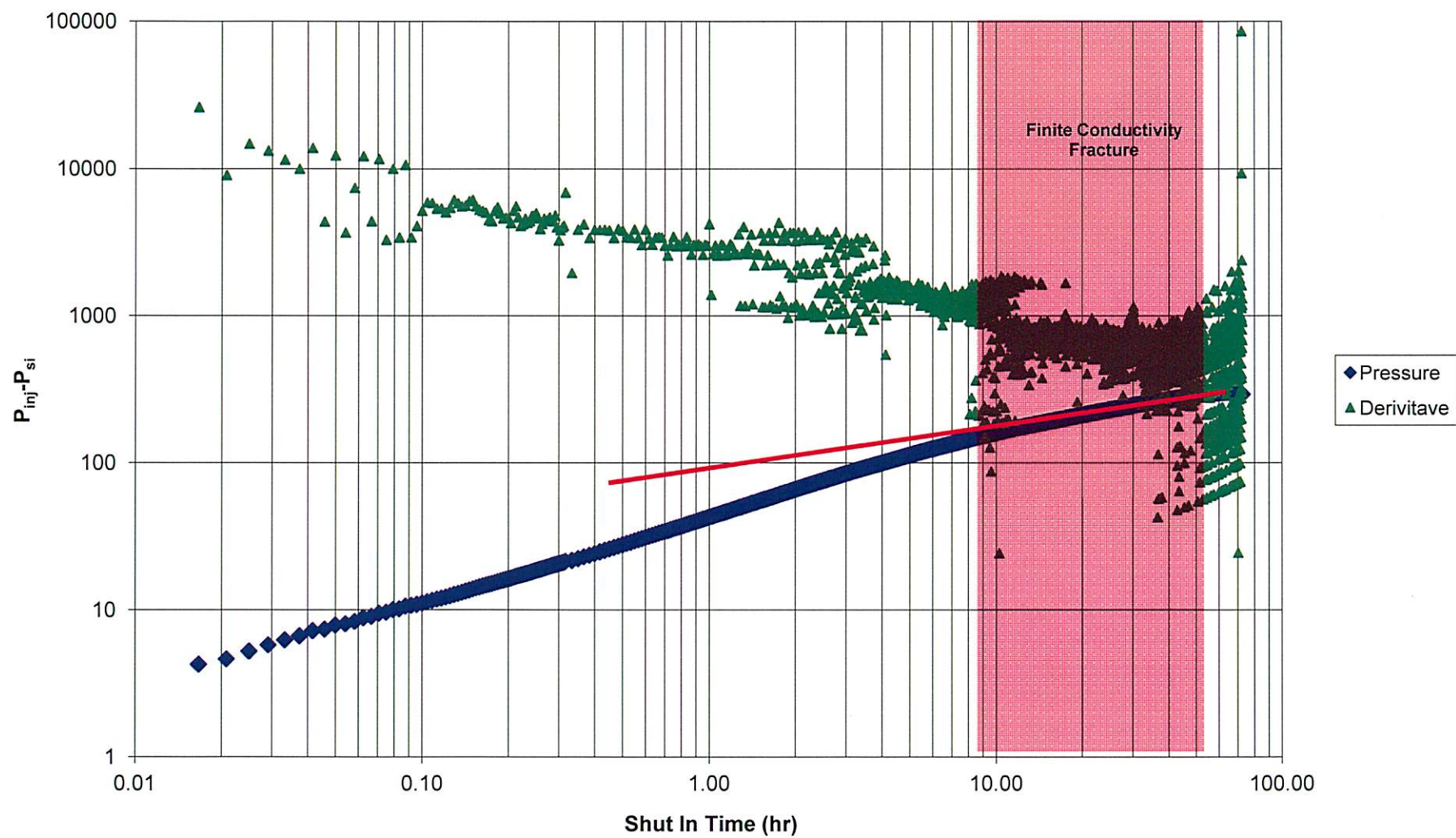


Surface Pressure and Rate



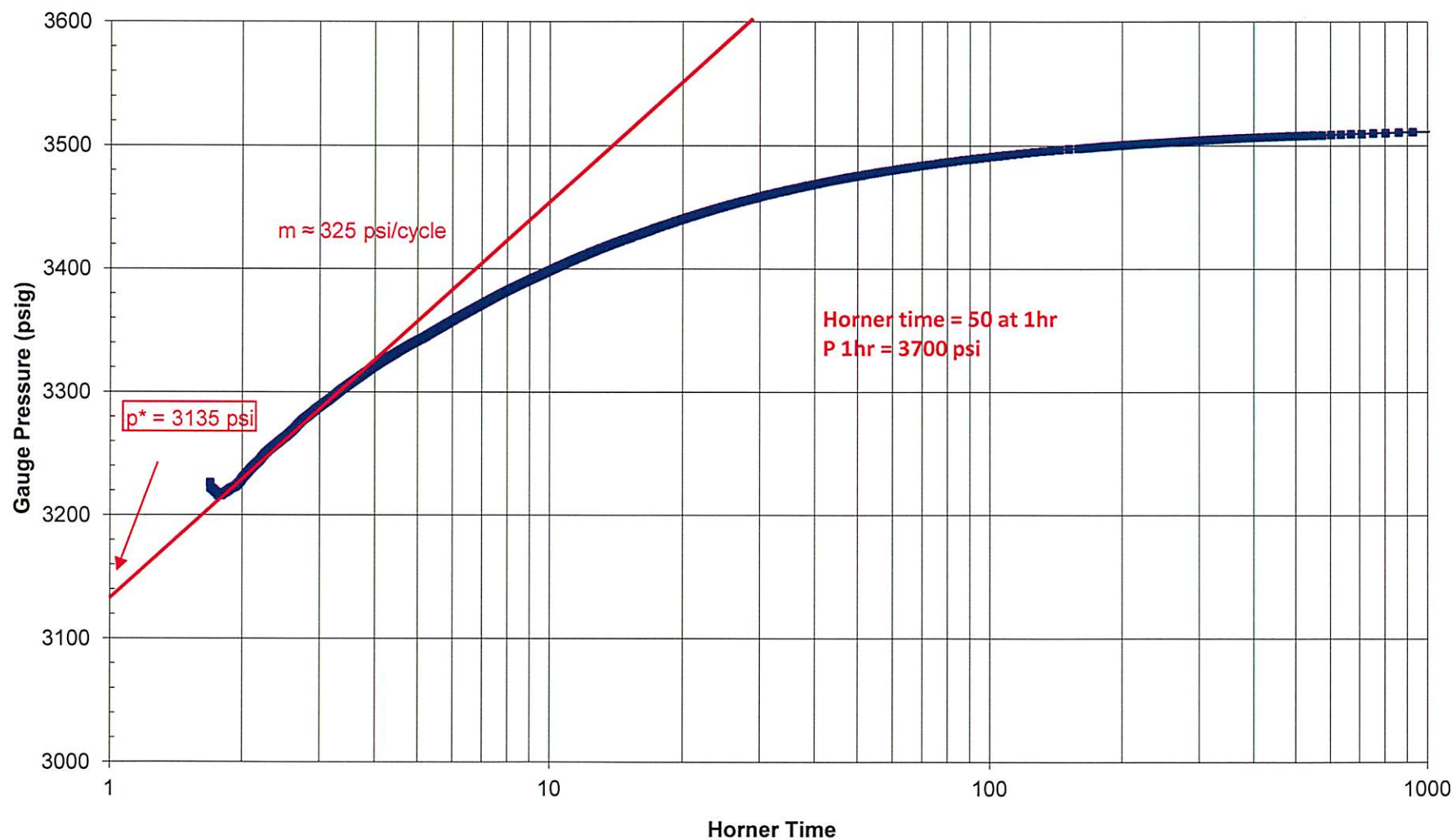


Sunco SWD Derivative Plot

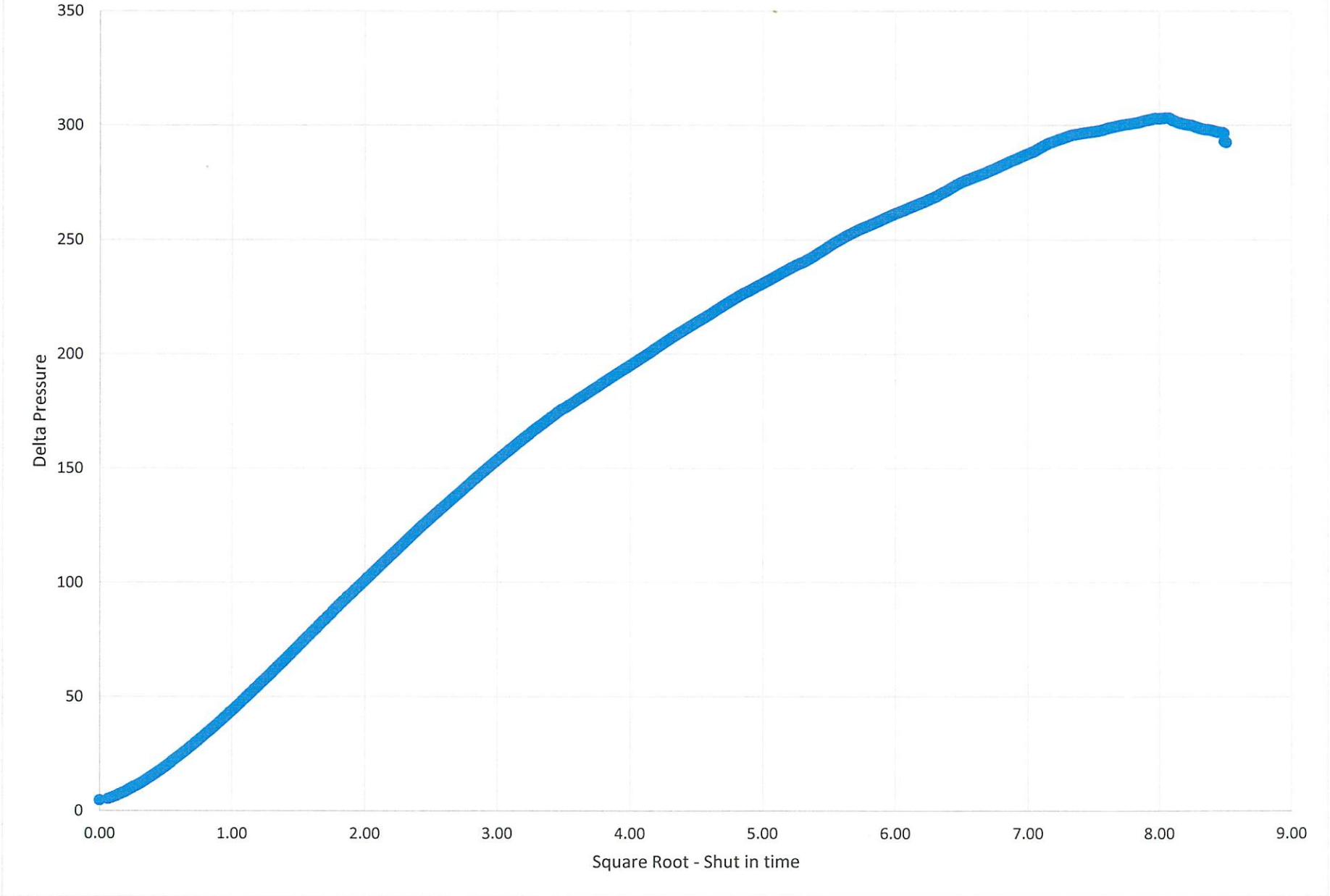




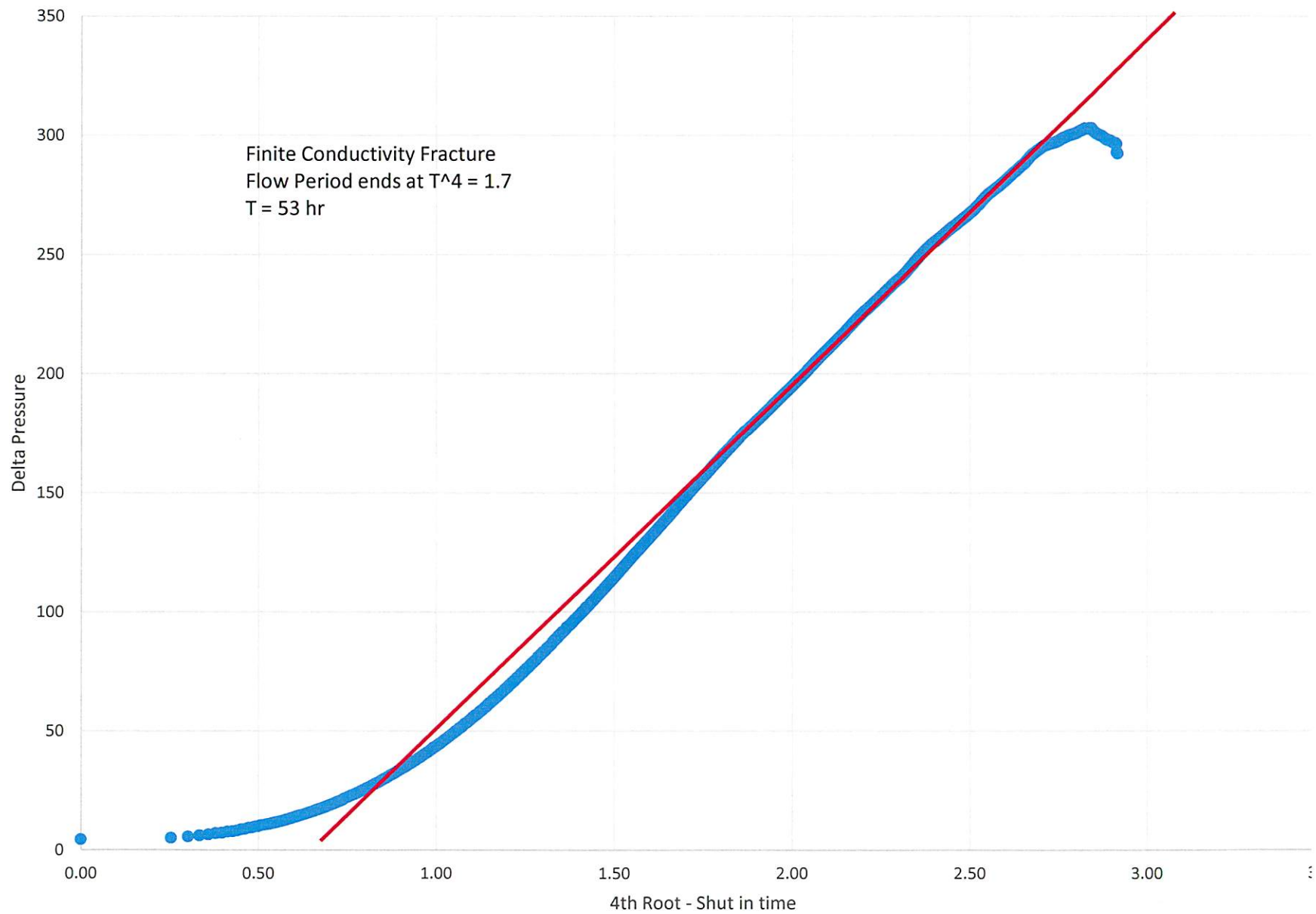
Sunco Disposal Well Horner Plot



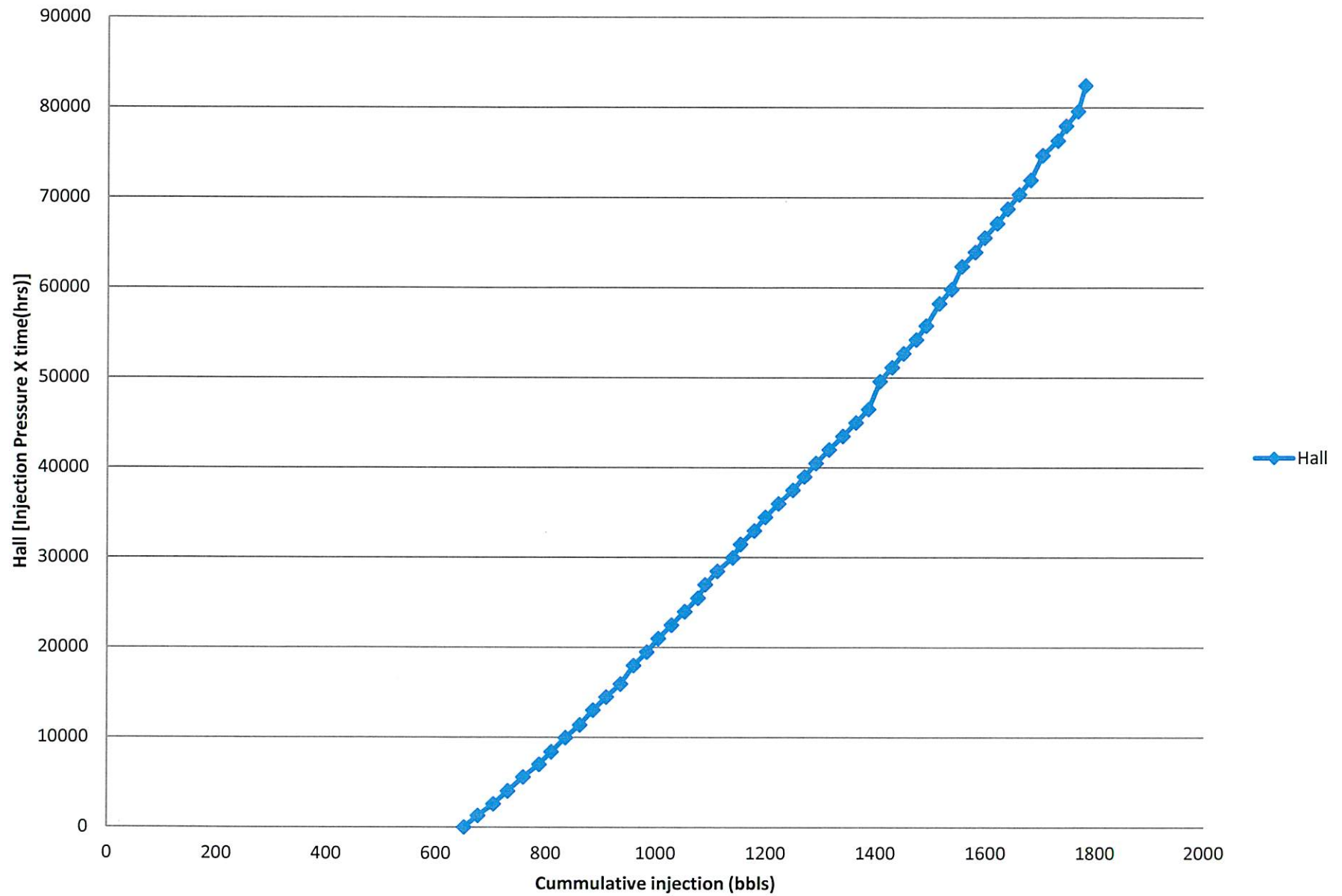
Fracture Plot - DP vs Sqr Root Time



Fracture Plot - DP vs 4th Root Time



Hall Plot



Sunco SWD #1
30-045-28653
Class I Disposal: UICI-5-0
2014 Falloff Test

Agua Moss, LLC
P.O Box 600
Farmington, NM 87499
ORGID 247130

Report Components:

1. Facility Operator Information
 - a. Agua Moss, LLC
 - b. PO Box 600 Farmington, NM 87499
 - c. OGRID 247130
2. Well Information:
 - a. UIC Permit # UICI-5-0
 - b. Class I
 - c. Sunco Disposal #1
 - d. 30-045-28653
 - e. UL E, Sec 2, T29N, R12W 1595 FNL & 1005 FWL San Juan County
3. Current Wellbore Diagram: **Attached**
4. Copy of Electronic Log: **Attached**
5. Copy of Porosity Log: **Attached**
6. NO PVT data necessary, injected fluid is fresh-to-slightly saline water. No significant hydrocarbons present that would alter the density, compressibility and/or viscosity of the fluid.
7. The Agua Moss, LLC internal Daily Injection Reports were used to determine the appropriate injection history to use for the analysis. A summary of those reports (November 2013 through January 2014) are attached.
8. Approximately 132,329,914 bbls has been injected into the point lookout formation utilizing the Sunco SWD #1 from 1994 through March 2014 (see attached). The offset well McGrath SWD #4 API 30-045-25923 was plugged 7/25/2013. Cumulative injection 1994-7/2013 27,746,479 bbls.
9. Pressure Gauges information: (see attached)
 - a. SP-2000 Memory Pressure Gauge
 - b. Pressure range: **0-5000 psig**
 - c. Last Calibration: **2/27/13**
10. 1 Mile Area of Review (AOR):
 - a. Well list: **See attached**
 - b. Well status: **See attached**
 - c. The McGrath #4 was the only offset well that was injecting into the Point Lookout formation within 1 mile. This well was plugged 7/25/2013. **See attached P&A report.**
11. Geological information was provided in the last Permit renewal submitted and approved in 2012.
12. Offset Wells: One offset well that was completed in the same injection interval was the McGrath #4 (see #10). This well was plugged 7/2013 and therefore was not impacted.
13. Chronological listing of the daily, testing activities (Event Summary) attached
 - a. Date of Test: **2/10/2014 thru 02/15/2014**
 - b. Time of the injection period: **50 hours**
 - c. Type of injection fluid: **Produced water**
 - d. Final injection pressure & temp prior to shutting in the well: **3519 psi, 86.6 °F**

- e. Total shut-in time: **72 hours**
 - f. Final static pressure & temp at the end of the fall-off portion of the test: **3226 psi, 91.7 °F**
14. Location of the shut in valve: **A wing valve located on the well's Christmas Tree was closed to begin the FOT**
 15. See attached falloff test calculations:
 16. Any pressure or temperature anomaly: **None seen**
 17. See falloff test calculations
 18. Plots attached
 19. Results Comparison attached
 20. The raw test data will be kept on file for a period of 3-year and will be made available to the NMOCD upon written request.

Wellbore Schematic:

Agua Moss, LLC

Wellbore Schematic

Sunco No. 1, SWD

Current Wellbore Configuration

Location: 1595' fml & 1005' fwl
Sec 2, T29N, R12W
San Juan Co, New Mexico

July 12th, 2013

Elevation: 5,859' GL
5,872' RKB

By: J. Ryan Davis

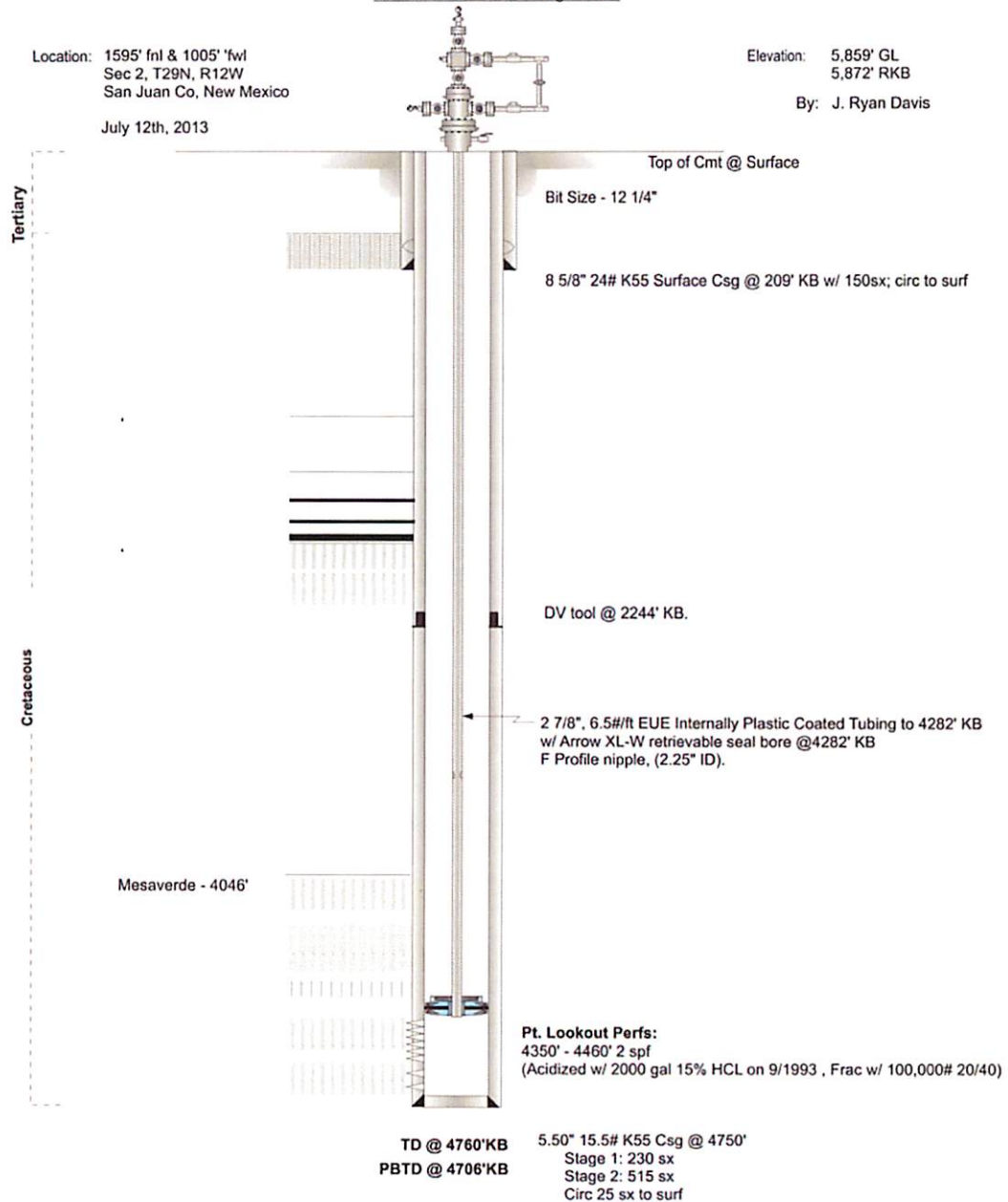
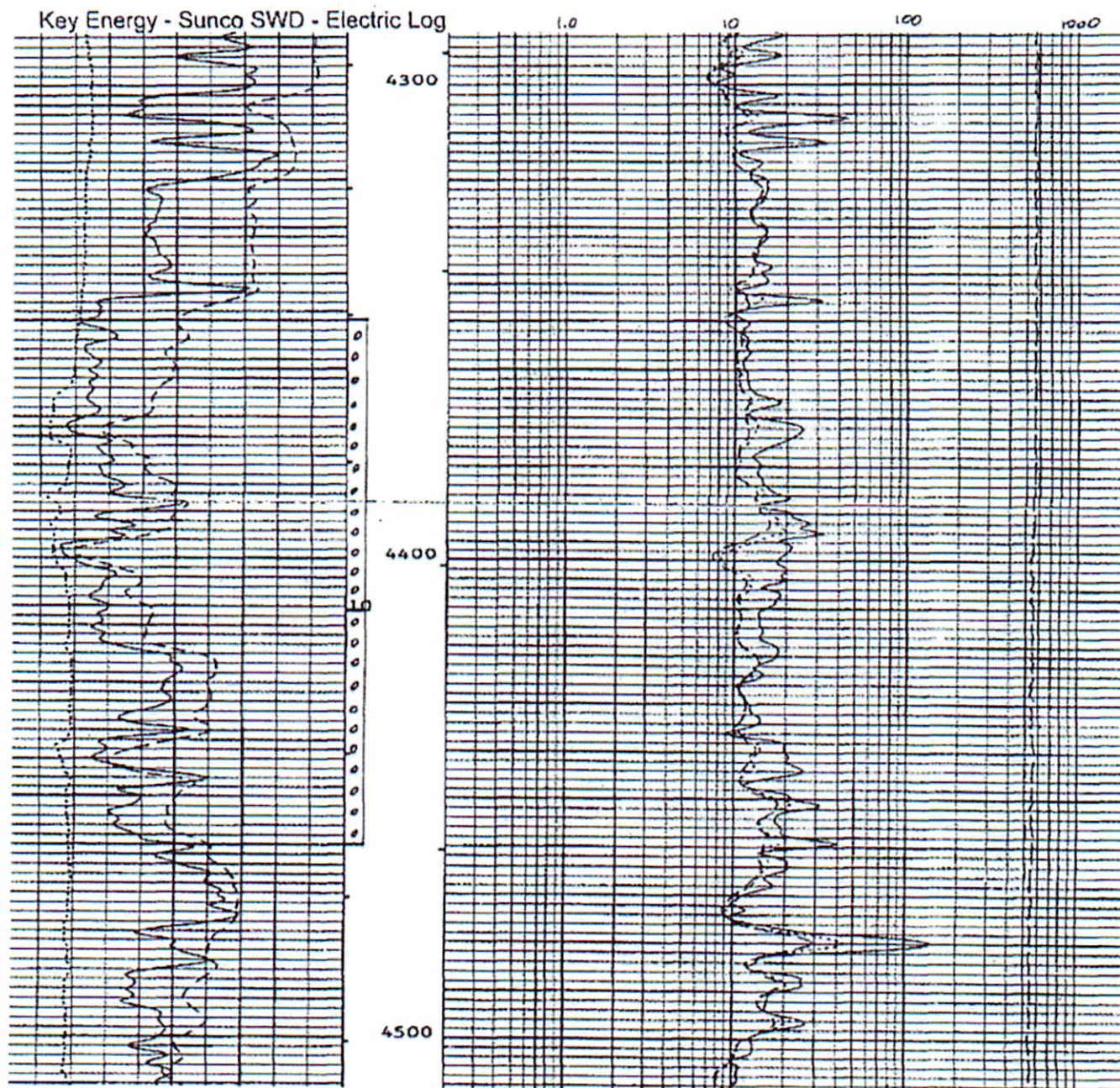


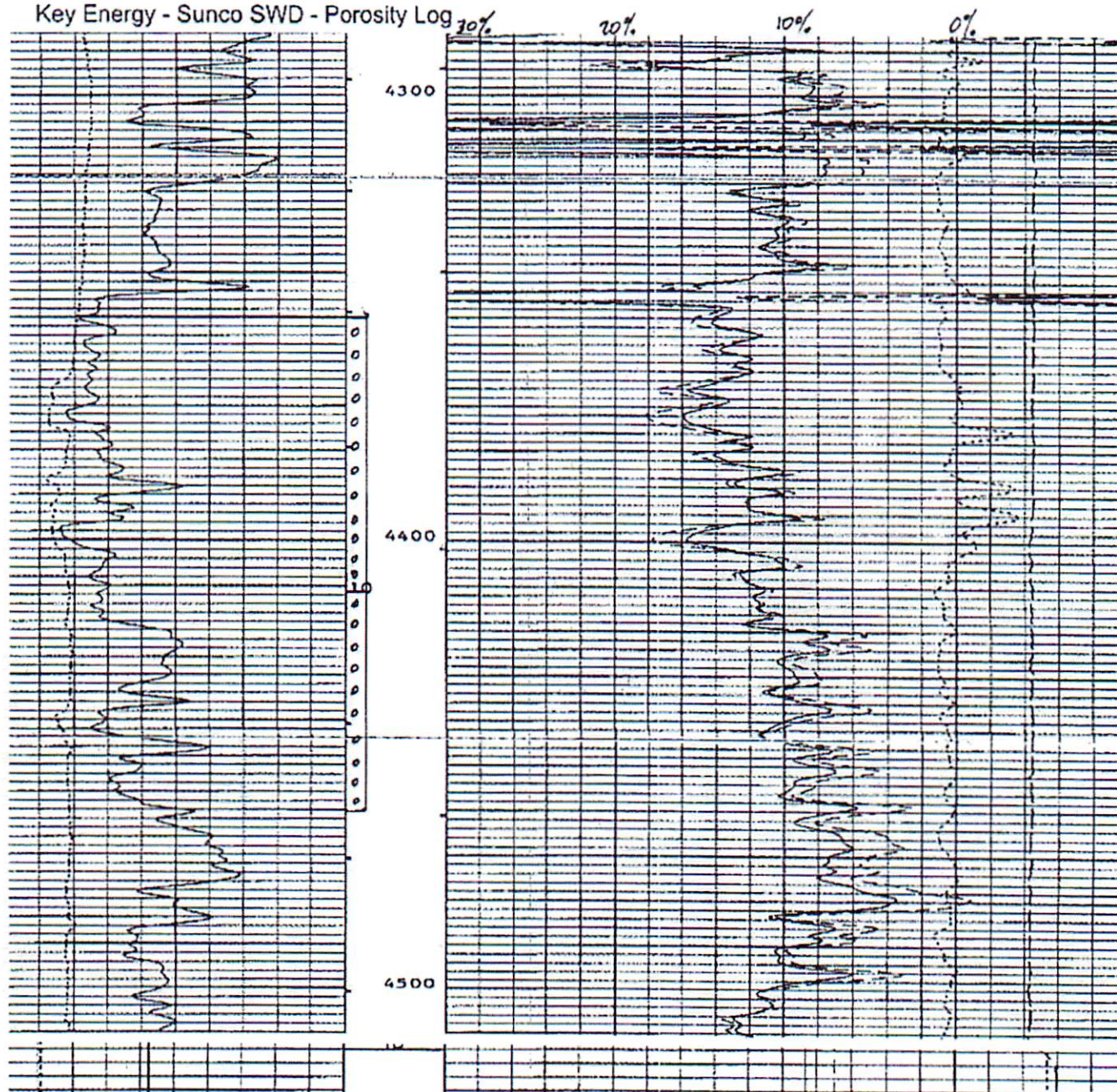
Figure 1: Wellbore Schematic

Key Energy - Sunco SWD - Electric Log



		TENS(LBF)	
		10000	0.0
CAL(IN)		SFLU(OHMM)	
3.0000	16.000	20000	2000.0
GR(GAP)		ILD(OHMM)	
2.0	200.00	20000	2000.0
SP(MV)		ILM(OHMM)	
80.00	20.000	20000	2000.0

Key Energy - Sunco SWD - Porosity Log



5"/100'

CP 32.6

FILE 6

01-FEB-1992 20:21

(UP)

		DPHQ(G/C3)	
		2500	25000
		TENS(LBF)	
		10000	0.0
CALI(IN.)		RHO(B(G/C3))	
5.0000	16.000	2.0000	3.0000
GR(GAP)		DPHI(V/V)	
0.0	200.00	30000	-1000

Daily Rate History:

Table 1: Daily Injection Volumes

Injection Volumes								
	Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow
11/1/2013			12/1/2013			1/1/2014		
11/2/2013			12/2/2013	932	27.18	1/2/2014		
11/3/2013			12/3/2013	2178	63.53	1/3/2014		
11/4/2013	661	19.28	12/4/2013	1517	44.25	1/4/2014		
11/5/2013			12/5/2013	197	5.75	1/5/2014		
11/6/2013	421	12.28	12/6/2013	497	14.50	1/6/2014		
11/7/2013	354	10.33	12/7/2013			1/7/2014		
11/8/2013	196	5.72	12/8/2013			1/8/2014		
11/9/2013			12/9/2013			1/9/2014		
11/10/2013			12/10/2013			1/10/2014		
11/11/2013	195	5.69	12/11/2013			1/11/2014		
11/12/2013	217	6.33	12/12/2013	169	4.93	1/12/2014		
11/13/2013	213	6.21	12/13/2013	473	13.80	1/13/2014		
11/14/2013	570	16.63	12/14/2013			1/14/2014		
11/15/2013			12/15/2013			1/15/2014		
11/16/2013			12/16/2013	110	3.21	1/16/2014		
11/17/2013			12/17/2013	130	3.79	1/17/2014		
11/18/2013	385	11.23	12/18/2013	256	7.47	1/18/2014		
11/19/2013	308	8.98	12/19/2013			1/19/2014		
11/20/2013	353	10.30	12/20/2013			1/20/2014		
11/21/2013			12/21/2013			1/21/2014	26	0.76
11/22/2013	359	10.47	12/22/2013			1/22/2014	37	1.08
11/23/2013			12/23/2013			1/23/2014		
11/24/2013			12/24/2013			1/24/2014		
11/25/2013			12/25/2013			1/25/2014		
11/26/2013	310	9.04	12/26/2013			1/26/2014		
11/27/2013	446	13.01	12/27/2013			1/27/2014		
11/28/2013			12/28/2013			1/28/2014		
11/29/2013	807	23.54	12/29/2013			1/29/2014		
11/30/2013			12/30/2013			1/30/2014		
			12/31/2013			1/31/2014		
Avg	386.33	11.27		645.90	18.84	AVG	31.50	0.92
Min	807.00	23.54		2178.00	63.53	MAX	37.00	1.08
Max	195.00	5.69		110.00	3.21	MIN	26.00	0.76
Month Total	5795			6459			63	

Table 2: Wellhead and Annular Pressures

Wellhead & Annular Pressures								
	WH	AP		WH	AP		WH	AP
11/1/13	1600.00	210.00	12/1/13			1/1/14	1400.00	250.00
11/2/13			12/2/13	1950.00	50.00	1/2/14	1400.00	250.00
11/3/13			12/3/13	2050.00	50.00	1/3/14	1400.00	250.00
11/4/13	1850.00	45.00	12/4/13	2050.00	50.00	1/4/14		
11/5/13	1600.00	320.00	12/5/13	1900.00	50.00	1/5/14		
11/6/13	1650.00	170.00	12/6/13	1900.00	50.00	1/6/14	1400.00	250.00
11/7/13	1850.00	110.00	12/7/13			1/7/14	1400.00	250.00
11/8/13	1650.00	230.00	12/8/13			1/8/14	1400.00	250.00
11/9/13			12/9/13	1600.00	100.00	1/9/14	1400.00	250.00
11/10/13			12/10/13	1450.00	120.00	1/10/14	1400.00	250.00
11/11/13	1600.00	280.00	12/11/13	1400.00	150.00	1/11/14		
11/12/13	1600.00	280.00	12/12/13	1650.00	50.00	1/12/14		
11/13/13	1650.00	150.00	12/13/13	1800.00	50.00	1/13/14	1200.00	250.00
11/14/13	1850.00	50.00	12/14/13			1/14/14	1200.00	250.00
11/15/13	1600.00	250.00	12/15/13			1/15/14	1200.00	250.00
11/16/13			12/16/13	1650.00	50.00	1/16/14	1200.00	250.00
11/17/13			12/17/13	1700.00	0.00	1/17/14	1200.00	250.00
11/18/13	1700.00	170.00	12/18/13	1600.00	0.00	1/18/14		
11/19/13	1650.00	250.00	12/19/13	1500.00	50.00	1/19/14		
11/20/13	1850.00	75.00	12/20/13	1450.00	100.00	1/20/14	1200.00	250.00
11/21/13	1600.00	250.00	12/21/13			1/21/14	1200.00	250.00
11/22/13	1850.00	50.00	12/22/13			1/22/14	1250.00	250.00
11/23/13			12/23/13	1450.00	150.00	1/23/14	550.00	250.00
11/24/13			12/24/13	1450.00	150.00	1/24/14	1250.00	250.00
11/25/13	1450.00	350.00	12/25/13			1/25/14		
11/26/13	1650.00	110.00	12/26/13	1400.00	150.00	1/26/14		
11/27/13	1850.00	40.00	12/27/13	1400.00	150.00	1/27/14	1350.00	250.00
11/28/13	1600.00	80.00	12/28/13			1/28/14	1350.00	250.00
11/29/13	1800.00	50.00	12/29/13			1/29/14	1350.00	250.00
11/30/13			12/30/13	1400.00	200.00	1/30/14	1350.00	250.00
			12/31/13	1400.00	250.00	1/31/14	1350.00	250.00
AVG	1690.48	167.62	AVG	1626.19	93.81	AVG	1278.26	250.00
MIN	1450.00	40.00	MIN	1400.00	0.00	MIN	550.00	250.00
MAX	1850.00	350.00	MAX	2050.00	250.00	MAX	1400.00	250.00

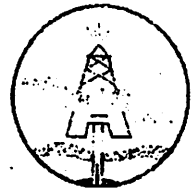
2013 Quarterly Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maximum Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	13059140	
Jan-2013	1630	1900	1450	9	15	2	100	100	100	306	530	62	2758	13061898	
Feb-2013	1758	1950	1500	12	16	7	100	100	100	414	555	228	4554	13066452	
Mar-2013	1743	1950	1500	11	19	0	100	100	100	381	643	1	4192	13070644	
													Previous Quarter	13070644	
Apr-2013	1968	2250	1600	23	37	1	100	100	100	803	1265	36	17665	13088309	
May-2013	1950	2150	1700	12	31	2	100	100	100	407	1054	61	7725	13096034	
Jun-2013	1955	2200	1550	12	33	5	50	50	50	401	1130	162	7214	13103248	
													Previous Quarter	13103248	
Jul-2013	1765	2000	1500	9	16	2	75	160	40	299	550	83	5080	13108328	
Aug-2013	1643	1900	1500	9	22	4	122	200	55	325	764	145	4551	13112879	
Sep-2013	1676	1900	1450	11	22	1	161	220	75	362	753	33	5431	13118310	
													Previous Quarter	13118310	
Oct-2013	1702	1850	1600	11	21	5	145	320	30	361	724	159	6143	13124453	
Nov-2013	1690	1850	1450	11	24	6	168	350	40	386	807	195	5795	13130248	
Dec-2013	1626	2050	1400	19	64	3	94	250	0	646	2178	110	6459	13136707	
													Total for year	77567	13214274

2014 Quarterly Injection Report

Total for year	9320	13232914
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SP-2000



Downhole Memory Pressure Gauge

The SP-2000 downhole memory pressure gauge is controlled by an internal microprocessor and powerful software.

The SP-2000 can stay downhole and collect data for hours or days; depending on your application. It is slimline and operates fully from battery power.

The microprocessor is capable of detecting the correct pressure and temperature and adjust the sampling rate automatically (once programmed for the test application).

The SP-2000 is tough, dependable, simple, and intelligent. If your job requires gauges that are reliable yet rugged and simple to use, the SP-2000 memory gauge, with its Hybrid-Quartz sensor is the one for you. It is so simple that a paper clip can be used to program it by changing the switch settings for the Type and Duration of test.

With the use of our simple, menu driven software, you can retrieve and report the gauge data (using a compatible computer and printer) from the tool once it is removed from the well.

Advanced reporting features are available such as data printouts, gradient reports, gradient plots and most of the standard time vs. pressure/temperature plot formats.

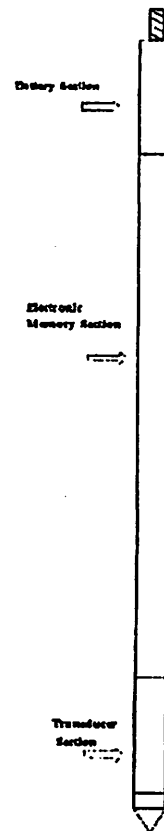
Micro-Smart Systems offers complete Well Test Interpretation, utilizing Fekete's "F.A.S.T. Well Test"™ software. This powerful state-of-the-art software includes data preparation, various analysis methods, analytical reservoir modeling and deliverability.

Micro-Smart Systems is the *SMART* choice for cutting-edge technology and superior customer support. We can save you time, money, and help you keep your customers satisfied.

SMART Features:

The technological features of the SP-2000 are:

- Dual EEPROM Memory
- Tool performs internal tests and delivers audible signal to confirm operation
- Multiple-run data storage capability
- User friendly software
- Convert from memory to SRO gauge with simple module change
- Compatible with Micro-Smart's production logging tools
- Standard ASCII data storage format
- Switch selectable programming without the use of a computer
- Selectable switches for duration in *DAYS* and *TYPE of TEST*
- Custom computer programming
 - up to 15 time periods
 - specify time interval, sampling rate, and ΔP switching.



"SMART AND SIMPLE"

SPECIFICATIONS:

Memory Capacity: 48,000 data sets (main memory) 2,000 data sets (backup memory) (time, pressure, temp.)	Pressure Ranges: 2,500 psi (17,000 KPA) 5,000 psi (34,000 KPA) 10,000 psi (68,000 KPA) 15,000 psi (102,000 KPA) 20,000 psi (136,000 KPA)
Sampling Intervals: 1.875 seconds to 64 minutes (in binary multiples)	Weight: 14 lbs. (5.9 Kg)
Diameter: 1.25 inch (31.2 mm)	Operating Temp.: 32° F to 325° F 10° C to 160° C
Resolution: Pressure .01 psi Temp. .04° F	Power: 13.5v (9 "C" cell Alkaline) 14.4v (4 "C" cell Lithium)
Accuracy: Pressure $\pm .05\%$ Full Scale Temp. $\pm 1^\circ F$ Time $\pm .05\%$	Length: 53 in. (1.3 m) plus battery pack 24 in. (.6 m) for 9 cell pack 16 in. (.4 m) for 4 cell pack

Customer MERRION OIL AND GAS
Street 610 REILLY AVENUE
City/State FARMINGTON, NM 87401
Country USA
Service Company TEFTELLER, INC.

Well Name SUNCO SWD NO. 1
Well Location SAN JUAN COUNTY, NM
Field / Pool
Status (Oil, Gas, Other) SALT WATER DISPOSAL

Test Type INJECTION & FALL-OFF TESTS

Date of Test 2-10-14

Producing Interval 4350' - 4460'

Recorder Depth 4405'

Recorder Position 4405'

Shut In Date Start: 2-10-2014

Stop: 2-15-2014

Duration: 125 HRS. TANDEM ELEC. MEMORY INST. TIME
Bottom Hole Temperature 87 DEGREES @ 4405'

Gauge Identification

Gauge Manufacturer MICRO-SMART SYSTEMS
Serial Number 240
Model Number SP2000
Pressure Range
Battery Type
Calibration I.D.
Last Calibration 2/27/13

Gauge Setup Parameters

Probe Set Up Time 2/10/14 10:50: 0
Time Delay to First Reading
Test Type Selection INJECTION & FALL-OFF TESTS
Test Duration Selection 125 HRS. TANDEM ELEC. MEMORY INST. TIME

AOR Sunco Disposal #1 updated 7/15/2013

Item 7b2												Surface Casing				INT Casing			Production Casing					
API	Well Name	Well #	Current Operator	Type	Lease	Status	Sec	TWN	RNG	UL	Spud Date	TD	size	depth	Sacks TOC	size	depth	Sacks TOC	size	depth	Sacks TOC	Perfs	Packer	PLUGGED
30-045-08851	ALLEN A	#001	BP America	Gas	Private	Active	1	29N	12W	D	3/12/1961	6785	8.265	264	200 surf				4.5	6785	300 surf	6518-6718		
30-045-26214	ALLEN A	#001E	BP America	Gas	Federal	Active	1	29N	12W	L	3/22/1985	5825	8.625	318	225 surf				5.5	6622	820 surf	6425-6602		
30-045-32346	CORNELL	#002R	Energen Resources	Gas	Federal	Active	1	29N	12W	M	7/22/2004	2152	7	137	90 surf				4.5	2151	310 surf	1702-1926		
30-045-08656	Cornell	2	Energen Resources	Gas	Federal	Plugged	1	29N	12W	M	10/2/1955	1996	8.625	97	75 surf				5.5	1950	100 surf	1711-1936		9/15/2005
30-045-08793	Pre-Ongard		Southern union	Gas	Private	Plugged	1	29N	12W	E	3/16/1948	2125												3/16/1948
30-045-32241	BECK	#001R	Burlington	Gas	Private	Active	2	29N	12W	G	12/1/2004	2225	7	135	34 surf				4.5	2221	262 surf	1774-2077		
30-045-33811	BECK	#001S	Burlington	Gas	Private	Active	2	29N	12W	D	8/17/2006	2200	7	162	85 surf				4.5	2195	255 surf	1730-1951		
30-045-31580	CORNELL COM	#500	Burlington	Gas	Federal	Active	2	29N	12W	N	7/14/2003	2136	7	139	44 surf	6.25	2126		4.5	2126	258 surf	1658-1878		
30-045-33573	CORNELL COM	#500S	Burlington	Gas	Private	Plugged	2	29N	12W	P	3/18/2006	2210	7	132	34 surf	6.25	2210		4.5	2198	279 surf	1754-1939 1743-1924		1/23/2013
30-045-08714	CORNELL SRC	#007	Burlington	Gas	Federal	Active	2	29N	12W	L	7/29/1944	2107	16	42	10 surf	5.5	1978		3.5	2106	250 surf	1976-2010		
30-045-08844	KATTLER	#001	Burlington	Gas	Private	Plugged	2	29N	12W	C	1/26/1945	2069	10	846	surf	5.5	1960		3.5	2050	205 surf	1961-2007		5/29/2012
30-045-08704	MCGRATH B	#001	Burlington	Gas	Private	Active	2	29N	12W	J	11/19/1961	6720	8.625	318	225 surf				4.5	1865	1065 surf	6489-6596		
30-045-08713	McGrath SRC	#001	Burlington	Gas	Private	Plugged	2	29n	12w	j	7/7/1973	2136	13 & 10.75	550 & 864	2 sx mud 4 sx mud	8.625	1526	5 sx mud	5.50 & 3.50	2020 2136	12 sx mud 140 surf	2020-2136 2012-2078		6/10/1998
30-045-30486	MCGRATH SRC	#001R	Burlington	Gas	Private	Plugged, Not Released	2	29N	12W	J	3/23/2001	2235	8.625	53	12 surf				2.875	2228	425 surf	2010-2157		6/25/2010
30-045-08797	Pre-Ongard		Southland	Gas	Private	Plugged	2	29n	12w	g	4/14/1948	2125												2/23/1984
30-045-28653	SUNCO DISPOSAL	#001	Agua Moss	Salt Water Disposal	Private	Active	2	29N	12W	E	1/28/1992	4760	8.625	209	150 surf				5.5	4760	1010 surf	4350-4460	4282 10/15/07	4350-4460 TA'd
30-045-08839	YOUNG	#001	Burlington	Gas	Private	Active	2	29N	12W	D	8/1/1961	6740	8.625	307	275 surf				4.5	6739	700 surf	6446-6644		
30-045-08709	MCGRATH	#003	Burlington	Gas	Private	Plugged	3	29N	12W	J	3/4/1945	2040	13.375	675	2 surf	8.625 INT 1 5.5 INT 2	1460 1928	4 surf 58 surf	3.5	2011	110 surf	1872-1912 1922-1937	1871-1876	3/1/2013
30-045-33580	MCGRATH	#003S	Burlington	Gas	Private	Active	3	29N	12W	B	7/13/2007	2132	7	218	150 surf				4.5	2112	289 surf	1692-1904		
30-045-08712	MCGRATH A	#001	Burlington	Gas	Private	Active	3	29N	12W	I	3/14/1964	6689	8.625	307	250 surf				4.5	6688	500 surf	6432-6524		
30-045-08711	Pre-Ongard		Union Texas	Gas	Private	Plugged	3	29N	12W	K	6/25/1955	1940												11/10/1964
30-045-32931	WALKER	#100S	Burlington	Gas	Private	TA'd 10/09	3	29N	12W	F	8/14/2005	2120	7	144	61 surf				4.5	2117	238 surf	1621-1885		

AOR Sunco Disposal #1 updated 7/15/2013

30-045-08823	Walker SRC	1	Burlington	Gas	Private	Plugged	3	29N	12W	G	2/25/1943	2050	16	21	20 surf	5.5	1930		3.5	2050	175 surf	1938-1974		10/12/2009
30-045-23889	BECK A	#001E	Burlington	Gas	Federal	Active	10	29N	12W	B	1/5/1981	6514	8.625	240	150 surf				4.5	6514	765 surf	6277-6454		
30-045-30381	CORNELL	#100	Burlington	Gas	Federal	Active	10	29N	12W	B	1/7/2003	1968	7	147	55 surf				4.5	1959	229 surf	1543-1704 1744 1800		
30-045-23758	Pre-Ongard		Southland	Gas	Federal	Plugged	10	29N	12W	A	12/19/1980	1870											2/10/1984	
30-045-08615	CORNELL	#006	Burlington	Gas	Federal	Active	11	29N	12W	C	11/7/1955	1839	8.625	106	70 surf	5.5	1811		3.5	2022	181 surf	1811-1839		
30-045-31581	CORNELL	#101	Burlington	Gas	Federal	Active	11	29N	12W	D	10/7/2003	2008	7	140	35 surf				4.5	2000	270 surf	1726-1764		
30-045-13092	CORNELL C	#001	BP America	Gas	Federal	Active	11	29N	12W	D	12/6/1961	6604	8.625	250	150 surf				4.5	6604	300 surf	6298-6483		
30-045-26141	DUFF GAS COM	#001E	Burlington	Gas	Federal	Active	34	30N	12W	G	11/20/1984	6608	8.625	316	295 surf				4.5	6608	1000 surf	6396-6576 04'RC to FC 1492-1870		
30-045-08950	HUDSON	2	Burlington	Gas	Federal	Plugged	34	30N	12W	P	7/17/1946	2137	15.5	38	20 surf	10 & 8.625	1217 1618	99 surf	5.5	1961	40 surf	1728-1938 1962-2008	2128	9/26/2008
30-045-08945	MCGRATH C	#001	Burlington	Gas	Federal	Plugged	34	30n	12W	p	2/7/1963	6637	8.625	323	225 surf				4.5	6637	925 surf	6367-6576		4/29/2009
30-045-08955	Pre-Ongard		Aztec O&G	Gas	Private	Plugged	34	30N	12W	N	11/1/1944	1965											10/29/1977	
30-045-25923	McGrath	#004	Burlington	SWD	Federal	Plugged	34	30N	12W	B	9/4/1984	4700	8.625	231	230	5.5	4698	460	3.5	4198		4272-4374 4238-4197		7/25/2013
30-045-08946	CARNAHAN COM	#001	Holcomb Oil & Gas	Gas	Private	Active	35	30N	12W	P	12/19/1960	6778	8.625	301	200 surf				4.5	6760	445 surf	6521-6708 94 RC to FC 1824-2037		
30-045-25844	CARNAHAN COM	#002	Merrion Oil & Gas	Gas	Private	Active	35	30N	12W	P	6/15/1984	6780	8.625	230	170 surf				4.5	6777	1425 surf	6529-6714		
30-045-11770	HUDSON J	#003	Burlington	Gas	Federal	Active	35	30N	12W	E	7/22/1966	6750	8.625	306	250 surf				4.5	6750	750 surf	6460-6680 01' RC to FC 1784-1994		
30-045-20140	Pre-Ongard		Southland	Gas	Federal	Plugged	35	30N	12W	L	9/7/1967	DH											6/9/1982	
30-045-28177	FC STATE COM	#024	Burlington	Gas	State	Active	36	30N	12W	M	10/9/1990	6608	8.625	316	250 surf				4.5	6609	6000 surf	1492-1870		DK ZA 9/2002 6396-6576

AOR Statement:

All tracts within the AOR were reviewed for activity that had ensued since the 2012 report was submitted in 2013. Since the last report one well was plugged and abandoned. P&A report is attached.

RECEIVED

Form 3160-5
(August 2007)

AUG 22 2013

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFarmington Field Office
Bureau of Land Management

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

5. Lease Serial No.

SF-077922

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☐ Oil Well☒ Gas Well☐ Other

2. Name of Operator

Burlington Resources Oil & Gas Company LP

3a. Address

PO Box 4289, Farmington, NM 87499

3b. Phone No. (include area code)

(505) 326-9700

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

McGrath SWD 4

9. API Well No.

30-045-25923

10. Field and Pool or Exploratory Area

Mesaverde SWD

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface Unit B (NWNE), 800' FNL & 1730' FEL, Sec.34, T30N, R12W

11. Country or Parish, State

San Juan New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☒ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

7/12/13 The 4197' packer in procedure is not holding, asked permission to pump plug from 4374' to end of tbg @ 4213'.

Called Steve Mason w/ BLM & Charlie Perrin w/ OCD. Both gave verbal approval.

7/16/13 The packer in hole was supposed to shut off water, asked approval to shoot tbg off @ 3896' & set 150' plug on top of it.

Called Steve Mason w/ BLM & Charlie Perrin w/ OCD. Both gave verbal approval.

7/19/13 Plug 4&5 need to be combined as there is only 120' between them. Bill Diers on site w/ BLM, Called Brandon Powell w/ Ocd and got verbal approval.

7/19/2013 2nd call. Surface perms @ 281' PT to 1000#-OK. Tied onto Bradenhead & pumped 5 bbl's water down (145') PT to 500# and test was good. Bill Diers on site w/ BLM wants to perf @ 125', run in tbg and circ to surface inside and in annulus. Called Brando Powell w/ OCD & got verbal approval.

The subject well was P&A'd on 7/25/13 per the above notifications and the attached reports.

RCVD AUG 26 '13
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Kenny Davis

Title Staff Regulatory Technician

8/22/2013

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instruction on page 2)

NMOCDA

RECEIVED FOR RECORD

AUG 22 2013

FARMINGTON FIELD OFFICE

all

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979

Farmington, New Mexico 87499

505-325-2627 *fax: 505-325-1211

Burlington Resources
McGrath SWD 4

July 22, 2013
Page 1 of 2

800' FNL and 1730' FEL, Section 34, T-30-N, R-12-W
San Juan County, NM
Lease Number: SF-077922
API #30-045-25923

Plug and Abandonment Report Notified NMOCD and BLM on 7/8/13

Plug and Abandonment Summary:

Plug #1 with 40 sxs (47.2 cf) Class B cement inside casing to 4212'. Tag TOC at 3896'.

Plug #2 with 17 sxs (20.06 cf) Class B cement with 2% CaCl inside casing from 3893' to 3743' disp with 13.8# mud to cover the Mesaverde top.

Plug #2a with 23 sxs (27.14 cf) Class B cement inside casing from 3893' to 3690' disp with 13.8# mud to cover the Mesaverde top.

Plug #2b with CR at 3485' spot 88 sxs (103.84 cf) Class B cement inside casing with 59 sxs in annulus, 6 sxs below CR, 23 sxs above CR TOC at 3282' to cover the Mesaverde top.

Plug #3 with CR at 2594' spot 48 sxs (56.64 cf) Class B cement inside casing from 2644' to 2489', 30 sxs in annulus, 6 sxs below CR, 12 sxs above CR TOC at 2489' to cover the Chacra top.

Plug #4 (original plug #3 and plugs 4&5 combined) with 49 sxs (57.82 cf) Class B cement inside casing from 1940' to 1508' to cover the Pictured Cliffs, Fruitland Coal tops.

Plug #6 with 36 sxs (42.48 cf) Class B cement inside casing from 628' to 311' to cover the Kirtland and Ojo Alamo tops.

Plug #7 with 37 sxs (43.66 cf) Class B cement inside casing from 281' to surface to cover the surface casing shoe.

Plug #8 with 30 sxs Class B cement top off casings and install P&A marker.

Plugging Work Details:

7/10/13 Rode rig equipment to location. Spot in. Bump test H2S equipment. Check well pressures: tubing 600 PSI, casing 160 PSI and bradenhead TSTM. RU relief lines and blow well down. ND wellhead. NU BOP and noticed tubing started blowing. Shut in tubing. Pressured up to 1000 PSI. Attempt to blow well down. Wait on Phoenix. RU Phoenix and retrieve plug in tubing. RIH and set another plug at 4212'. Pressure still at 1000 PSI. Wait on orders. RIH and retrieve plug at 4212'. RIH and set another plug on/off tool at 4198'. Pressure still the same. SI well. SDFD. Note: Procedure change approved BLM/ NMOCD.

7/11/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. RU relief lines attempt to blow well down. SI well and wait on orders. RU Phoenix and RIH retrieve plug. Pump 80 bbls of water establish a rate of 2 bpm at 1200 PSI, SI tubing. Wait on acid. RU Baker Petrolite. Pump 500 gals acid with 1 bbl flush. RU pump to tubing and pump 24 bbls to spot acid at 2800'. SI tubing. Wait 30 minutes and pump 2 bbls to 3130'. SI well. SDFD.

7/12/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. Pump 10 bbls flush acid past packer and SI well. RU Phoenix. RIH and set plug at 4212' below packer. POH. Open tubing still flowing. SI pressure at 1040 PSI. Note: Procedure change approved BLM/NMOCD. Spot plug #1a with estimated TOC at 4212'. SI well. SDFD.

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979

Farmington, New Mexico 87499

505-325-2627 *fax: 505-325-1211

Burlington Resources
McGrath SWD 4

July 22, 2013
Page 2 of 2

Plugging Work Details (continued):

- 7/15/13 Bump test H2S equipment. Check well pressures: tubing 420 PSI, casing and bradenhead 0 PSI. RU relief lines tubing blew right down. SI for an hour and 0 PSI. Start mixing gel to VISC at 13.8#. Check pressure on tubing 0 PSI. Attempt to release off packer at 4196' unable to release. Wait on orders to jet cut tubing. SI well. SDFD.
- 7/16/13 Bump test H2S equipment. Open up well; no pressures. RU relief lines. RU Wireline Specialties. Tag TOC at 3896'. Note: Procedure change approved BLM/ NMOC. RIH and cut tubing at 3893'. Pull tubing hanger. Establish circulation. Pump 60 bbls 13.8# mud. SI casing attempt to pressure test pump 4 bbls no pressure, pulled 1 joint discover need slip grip elevators. Wait on elevators. Regulator broken. SI well. SDFD.
- 7/17/13 Bump test H2S equipment. Open up well; no pressures. Establish circulation. Spot plug #1 with estimated TOC at 3743'. LD 1 joint, 2-6' subs, 2-4' sub, LD 118 joints (119 joints total) EUE 9.3# 3-1/2" at 3893'. Tally 124 joints 2-3/8" tubing, EUE 4.7#, A-Plus tubing. Tag top of 3.5" cut at 3893'. Establish circulation. SI casing attempt to pressure test to 820 PSI bled down to 780 PSI. Spot plug #1a with estimated TOC at 3690'. SI well. SDFD.
- 7/18/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 3781'. RIH with 5.5" GR to 1362' unable to get down. Perforate 3 HSC squeeze holes at 3535'. Attempt to get rate, pumped 35 bbls 13.8# mud, no pressure. TIH with 5.5" string mill to 3507'. TIH with 5.5" DHS CR and set at 3485'. Pressure test tubing to 1000 PSI. Reverse circulate with 96 bbls till clean returns. Establish rate of 1.5 bpm at 900 PSI. Pressure test casing to 800 PSI, OK. Spot plug #2 with estimated TOC at 3282'. Reverse circulate from 3254' to 2644'. SI well. SDFD.
- 7/19/13 Bump test H2S equipment. Open up well; no pressures. Perforate 3 HSC squeeze holes at 2644'. Establish rate of 1 bpm at 1100 PSI. TIH with 5.5" DHS CR and set at 2594'. Establish circulation. Spot plug #3 with estimated TOC at 2489'. Reverse circulate 11 bbls from 2470' to 1960'. Establish circulation. Note: Procedure change approved BLM/NMOC. Spot plug #4 (combined 4&5) with estimated TOC at 1508'. Reverse circulate with 8 bbls from 1471' to 620'. Spot plug #6 with estimated TOC at 311'. Perforate 3 HSC squeeze holes at 281'. Attempt to get circulation pressured up to 1000 PSI. Bradenhead pressured to 500 PSI. Note: Procedure change approved BLM/ NMOC. Perforate 3 HSC squeeze holes at 125'. Establish circulation. Spot plug #7 with estimated TOC at surface. SI well. SDFD.
- 7/22/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 8'. ND BOP and dig out wellhead. RU High Desert. Cut off wellhead. Top off casings. Spot plug #6 and install P&A marker. RD and MOL.

Jim Morris, MSCI representative, was on location.
Bill Diers, BLM representative, was on location.

 *
 * E V E N T S U M M A R Y *
 *

COMPANY : MERRION OIL AND GAS

PAGE : B1

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Key Event	Pressure Psig	Temp Deg F
02/10	11:00:00	10.0000	PRESSURED UP LUBRICATOR	1155.33	63.63
02/10	11:06:00	16.0000	SURFACE STOP	1173.12	59.30
02/10	11:16:00	26.0000	STOP @ 1000'	1619.74	66.57
02/10	11:26:00	36.0000	STOP @ 2000'	2060.16	86.75
02/10	11:36:00	46.0000	STOP @ 3000'	2498.36	106.04
02/10	11:46:15	56.2500	STOP @ 4000'	2944.10	121.75
02/10	11:50:15	60.2500	TANDEM ELEC. MEMORY INST. @ 4405'	3105.52	115.43
02/12	14:12:00	3082.0000	STOPPED INJECTING	3507.25	86.82
02/12	14:27:00	3097.0000	WELL SHUT IN FOR FALL-OFF	3496.22	87.15
02/12	14:42:00	3112.0000	BEGAN FALL-OFF	3487.49	87.58
02/15	14:27:00	7417.0000	TANDEM ELEC. MEMORY INST. OFF BOTTOM	3226.56	91.53
02/15	14:38:15	7428.2500	STOP @ 4000'	3045.47	118.35
02/15	14:48:00	7438.0000	STOP @ 3000'	2609.30	107.69
02/15	14:58:15	7448.2500	STOP @ 2000'	2172.31	90.25
02/15	15:08:00	7458.0000	STOP @ 1000'	1734.52	69.62
02/15	15:19:00	7469.0000	SURFACE STOP	1284.64	71.90



March 25, 2014

Sunco Saltwater Disposal Well #1
UIC Permit # UICI-5-0
Section 2 T29N R12W API 30-045-28653
San Juan County, NM
Falloff Test Analysis

To whom it may concern:

This report summarizes the analysis of an injection falloff test on the Sunco SWD conducted in March of 2014.

Procedure

Tandem electronic gauges were run in the subject well. The initial BHP was 3105 psi at a depth of 4405'. A total of 1537 Bbls of water was injected over 50 hours at an average injection rate of 739 BWPD. Final bottom hole injection pressure was 3520 psi. Injection was then shut in, and the bottom hole pressure was monitored for another 50 hours. Final BHP was 3226 psi at the end of the test.

Analysis Results

1. $P^* = 3135$ psi
2. $K = 3.36$ md
3. $S = -4.1$
4. Radius of investigation = 386'
5. No boundary seen during test

Please call if you require more information or if you have any questions.

Sincerely,

George Sharpe

George Sharpe
Manager, Oil & Gas Investments
505-324-5314
gsharp@merrion.bz



June 25, 2014

Supplemental Analysis

Sunco Saltwater Disposal Well #1

UIC Permit # UICI-5-0

Section 2 T29N R12W API 30-045-28653

San Juan County, NM

To whom it may concern:

At the request of the NMOCD, a supplemental analysis was done to a) include fracture diagnostics, and b) to discuss the differences in the analysis results from this March 2014 falloff compared to the 2010 and other past falloff tests.

Fracture Analysis Results

Attached is a revised derivative plot and a fracture diagnostic plot. It appears that from 9 hours to approximately 53 hours into the test, the flow is characteristic of a finite conductivity fracture. Based on the 53 hours to begin radial flow, the fracture half length was calculated to be 336 feet.

Comparison with past Falloff Tests

	<u>2014</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>
Inj Rate – BPD	739	4500	??	??	??
P* - psi	3135	3231	3242	3176	3258
K – md	3.36	13.6	10.2	20.7	17.5
S	-4.1	-7.18	-7.23	-6.79	-6.93
Radius of Inv - ft	386'	1450	1250	1750	1620
Frac 1/2 lngth – ft	336'	893	926	596	688
Boundary	none seen	dual	755'	987'	none

Agua Moss did not conduct the prior tests and is relying on the 2010 report submitted by Key Energy, the prior operator, for the prior results. In comparing the results, there are a number of observations to make:

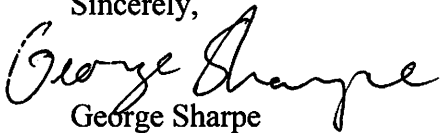
1. Pressure transient analysis is not an exact science, and the results are non-unique. All the calculated parameters vary significantly from year to year. One interpretation sees a boundary, the next one sees TWO boundaries, and one sees no boundary. The bottom line is that two different interpreters may come up with different results looking at the same data set, and even the same interpreter will come up with different results as data sets vary from year to year. Therefore, to a great extent, one must make qualitative conclusions from the analysis, without putting too much weight into the absolute numbers.

2. This well had been shut in for a period of time before the latest falloff test was performed by Agua Moss. The slightly lower P^* suggests that there has been some pressure dissipation in the reservoir during the shut in time. That is a good sign, indicating the disposal zone has a lot of capacity to accept fluids.
3. The injection rate in the 2010 test was 4500 BPD, while we were only able to inject 739 BPD during the 2014 test. Because the injection rate drives the calculations, the *calculated* permeability was less and the *calculated* skin factor was greater than in past tests. All *calculated* radius are driven by the permeability used in the equation. Because the permeability used in the 2014 analysis was significantly less than prior analysis, *the calculated* radius of investigation and *fracture* half length both come up significantly lower.

In summary, it appears that the disposal zone is in good shape and can take lots of water. As long as the surface pressure limitations keep us below fracture pressure, injecting into the well at the current injection rates will not damage the reservoir or migrate into other zones.

Please let me know if you have any questions or need further information.

Sincerely,

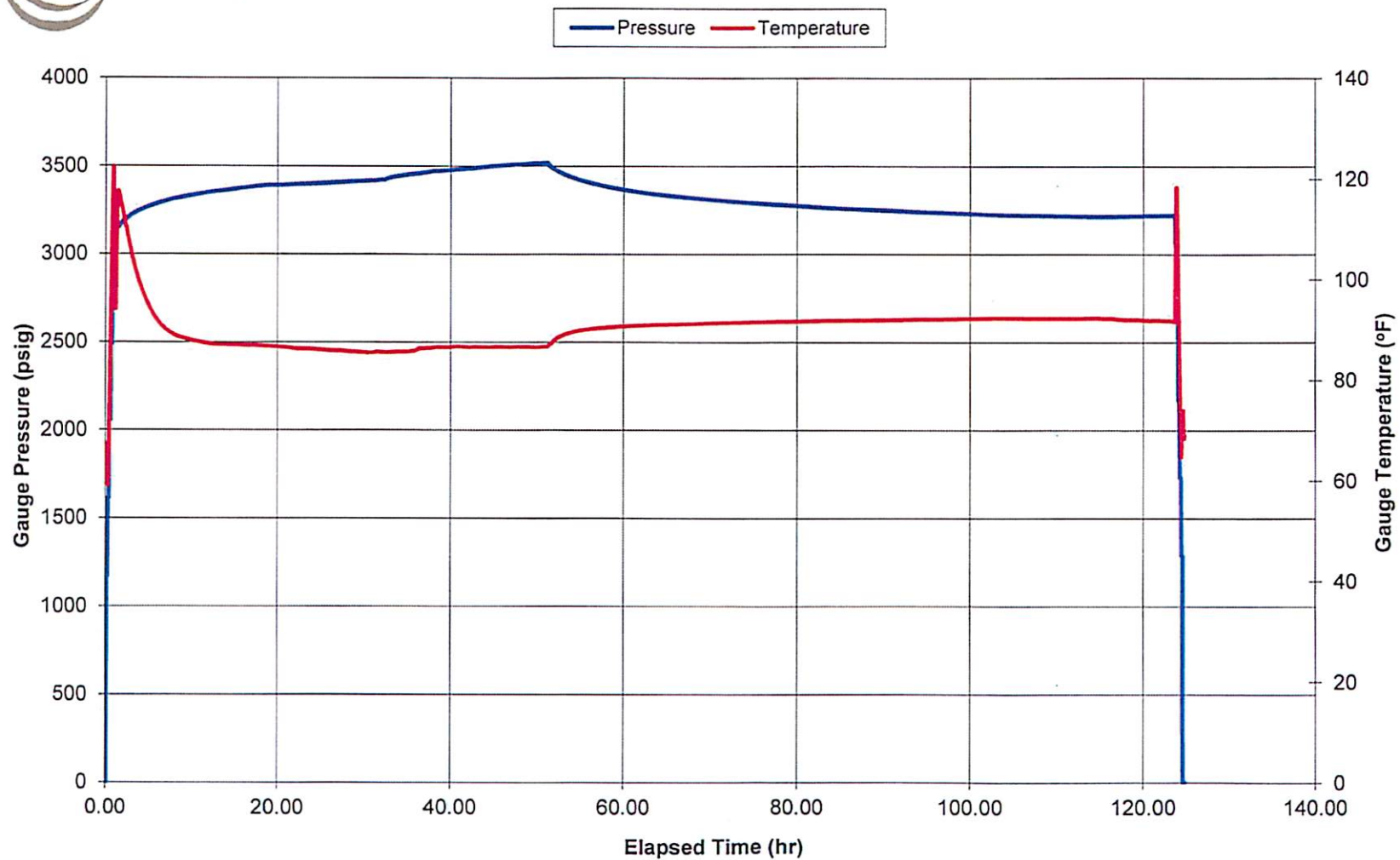


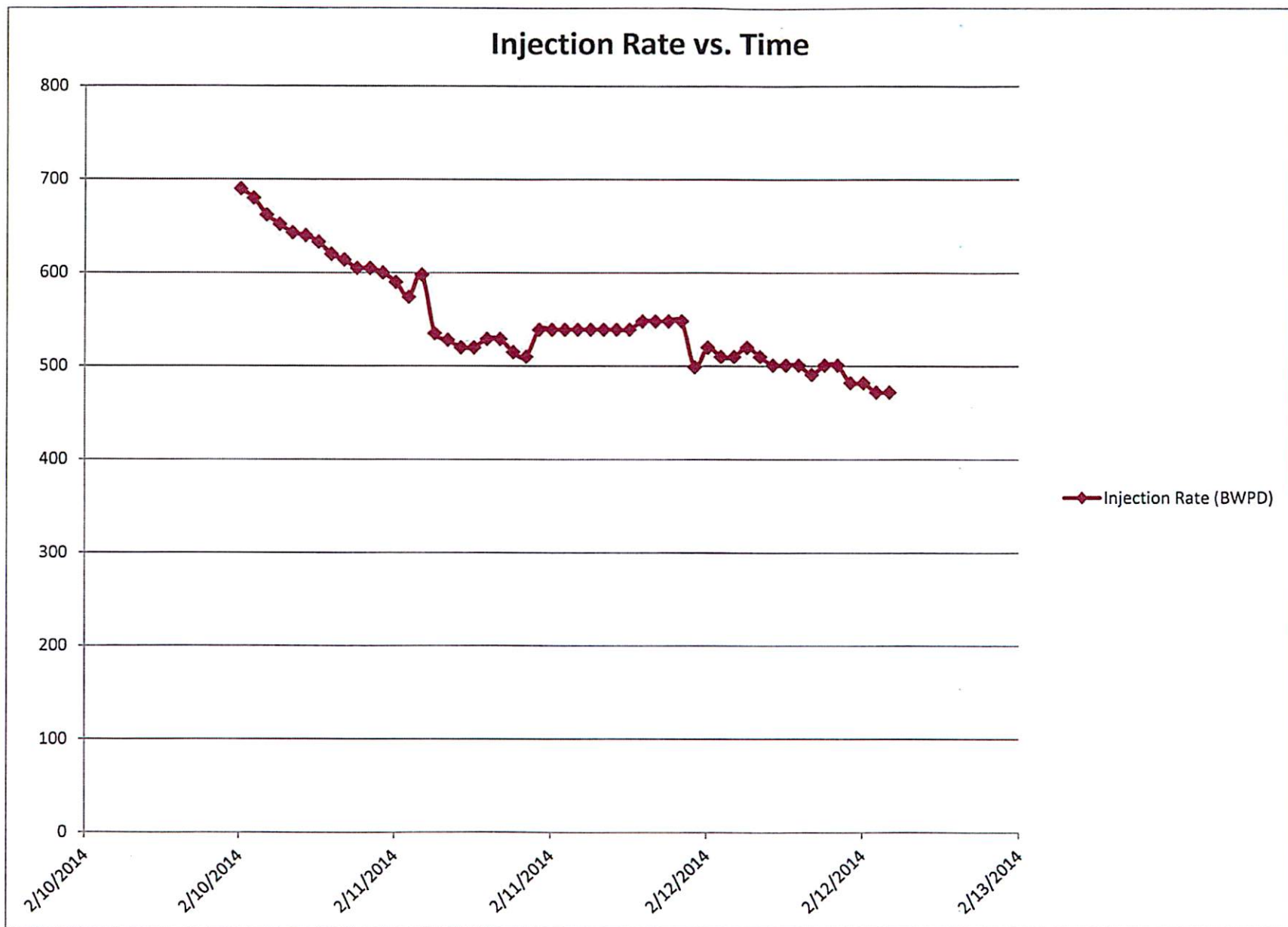
George Sharpe
Manager, Oil & Gas Investments
505-324-5314
gsharp@merrion.bz

Falloff Test Calculations					BHP	3,520	
Lease Name	Sunco SWD						
Field Name	Mesaverde						
Test Date	02/10/14						
Cum Injection	1,539	Bbls					
Injection Period	50	hours					
Ave Inj Rate	739	BWD	Cum Inj	1.54E+03	Bbl		
Water specific gravity	1.00		Rate	739	Bbl/day		
			Inj Time	50	hrs	Average pres	3,328 psi
			Water vis	1.0000	cp	Drainage radius	2,980 ft
			Bw	1.00000	RB/ surf bbl		
Reservoir temp	173	°F					
Acres	640					Compressibility water	3.00E-06
I. Calculation of kh (md-ft) and k (md)						Compress formation	3.65E-06
Slope (psi/cycle)	325	(1)				System Comp.	0.000007
Pwf	3,520	psi	KH	369.587	md-ft		
Pressure star (	3,135	psi	Kw	3.360	md		
Net thickness	110	ft	KH/u	370			
II. Calculation of Skin Effect and Pressure Loss Due to Skin							
Porosity	0.200	frac					
Well bore radius	0.33	ft	Skin	-4.12	LN(rwa/rw)		
P one hour	3,700	(2)	Pseudo skin	(1,166)	psi		
Water saturation	1.00	frac	Flow Efficiency	403%	(Pwf-Dpskin - Pstatic)/(Pwf-Pstatic)		
Injection Time	50	hr					
Time to Reach Radial	0.003	hr	(200000+12000*S)*Ct/(kh/u)				
Radius of Investigation	326	ft	0.029*(kt/Por*u*Ct)^.5				
Shut In Time	70	hr					
Time to Reach Radial	0.001717	hr	170000*Ct*exp^(.14*S)/(kh/u)				
Radius of Investigation	386	ft	0.029*(kt/Por*u*Ct)^.5				
Time to end of Frac Flow	53	hr					
Frac Half Length	336		0.029*(kt/Por*u*Ct)^.5				
Radial flow reached in less than one hour. Horner straight line starts 53 hours							
Finite Conductivity Fracture of approximately 336' half length							

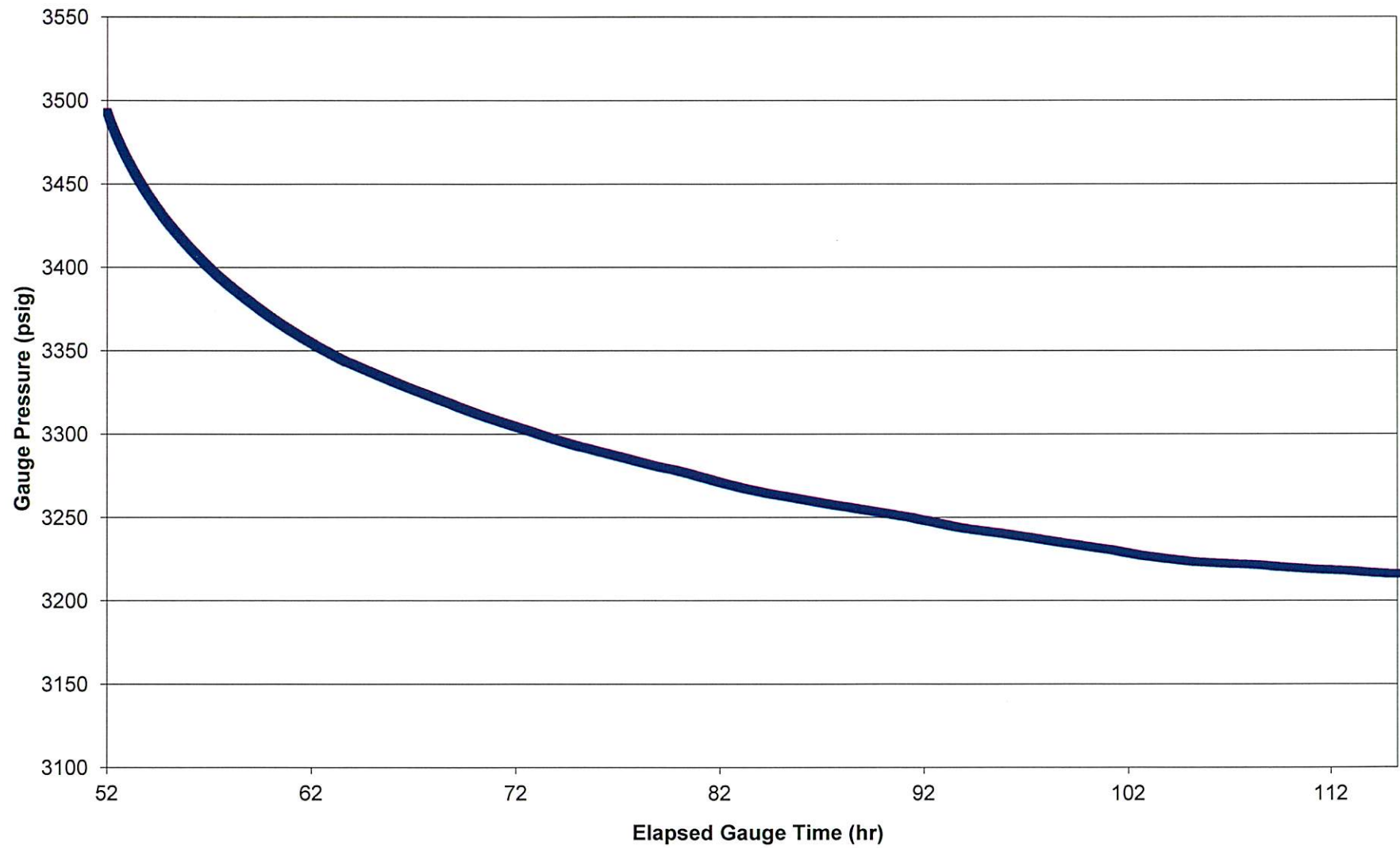


Sunco SWD #1 Falloff - February 2014

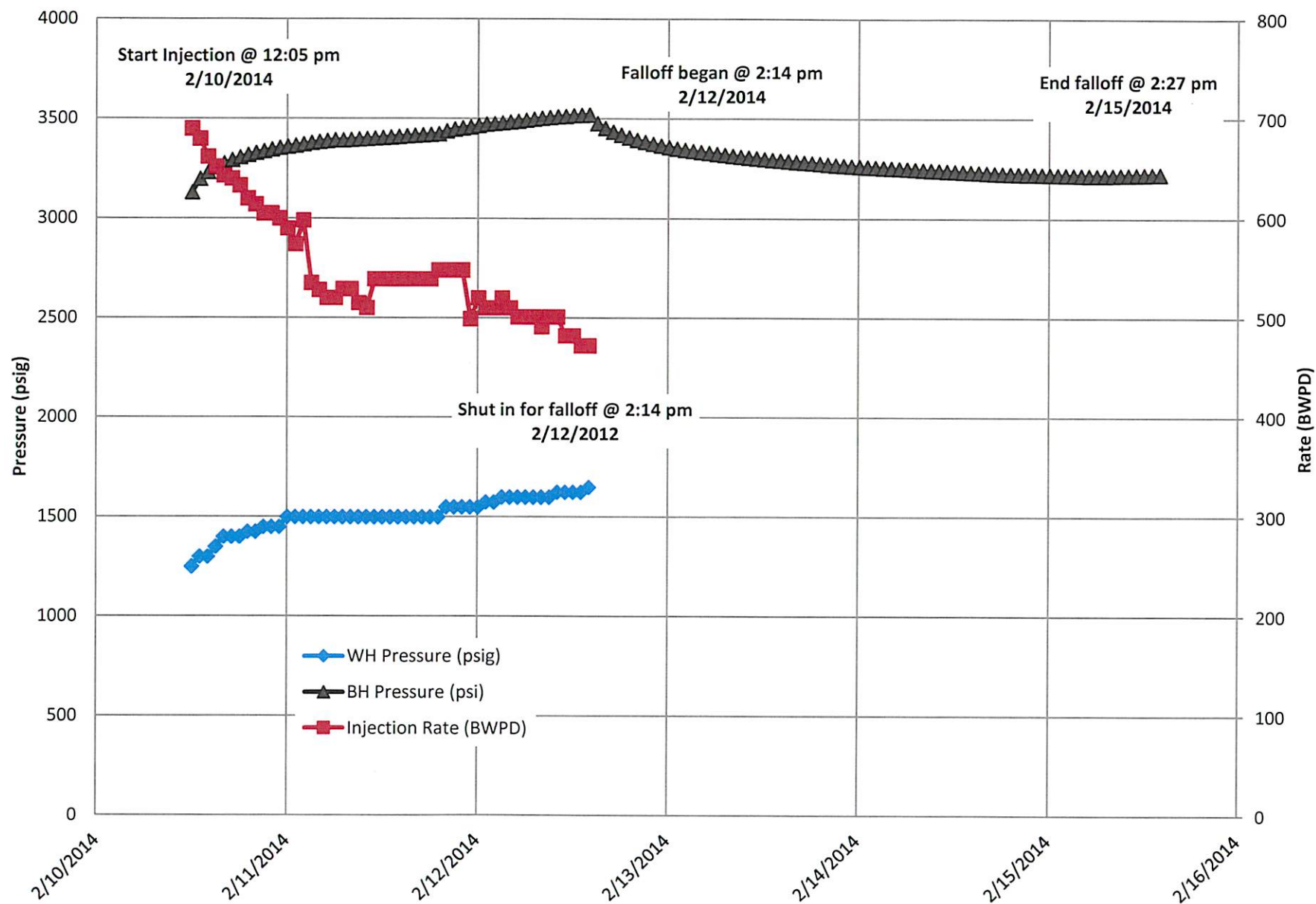




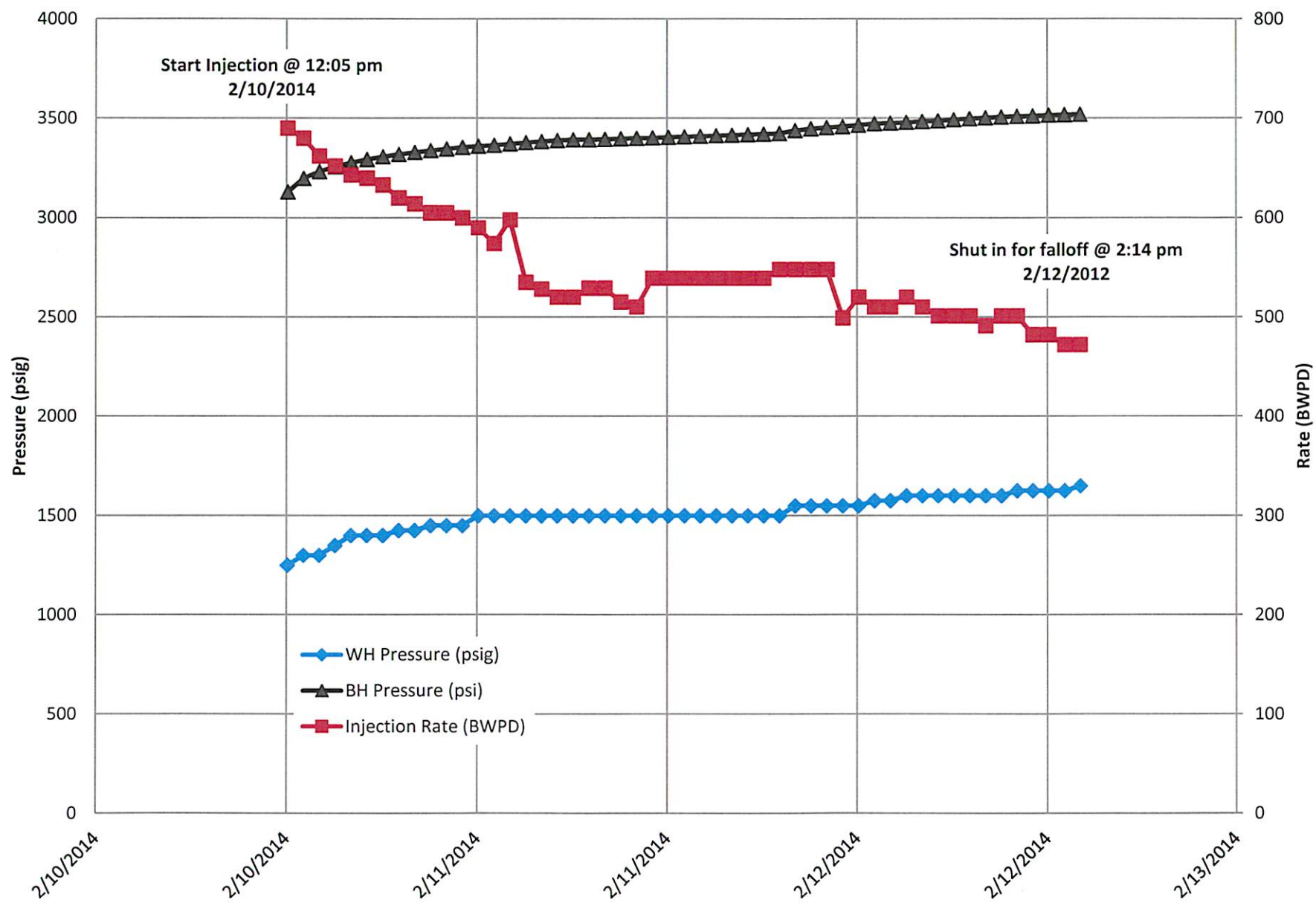
Sunco SWD #1 Falloff - February 2014



Pressure and Rate

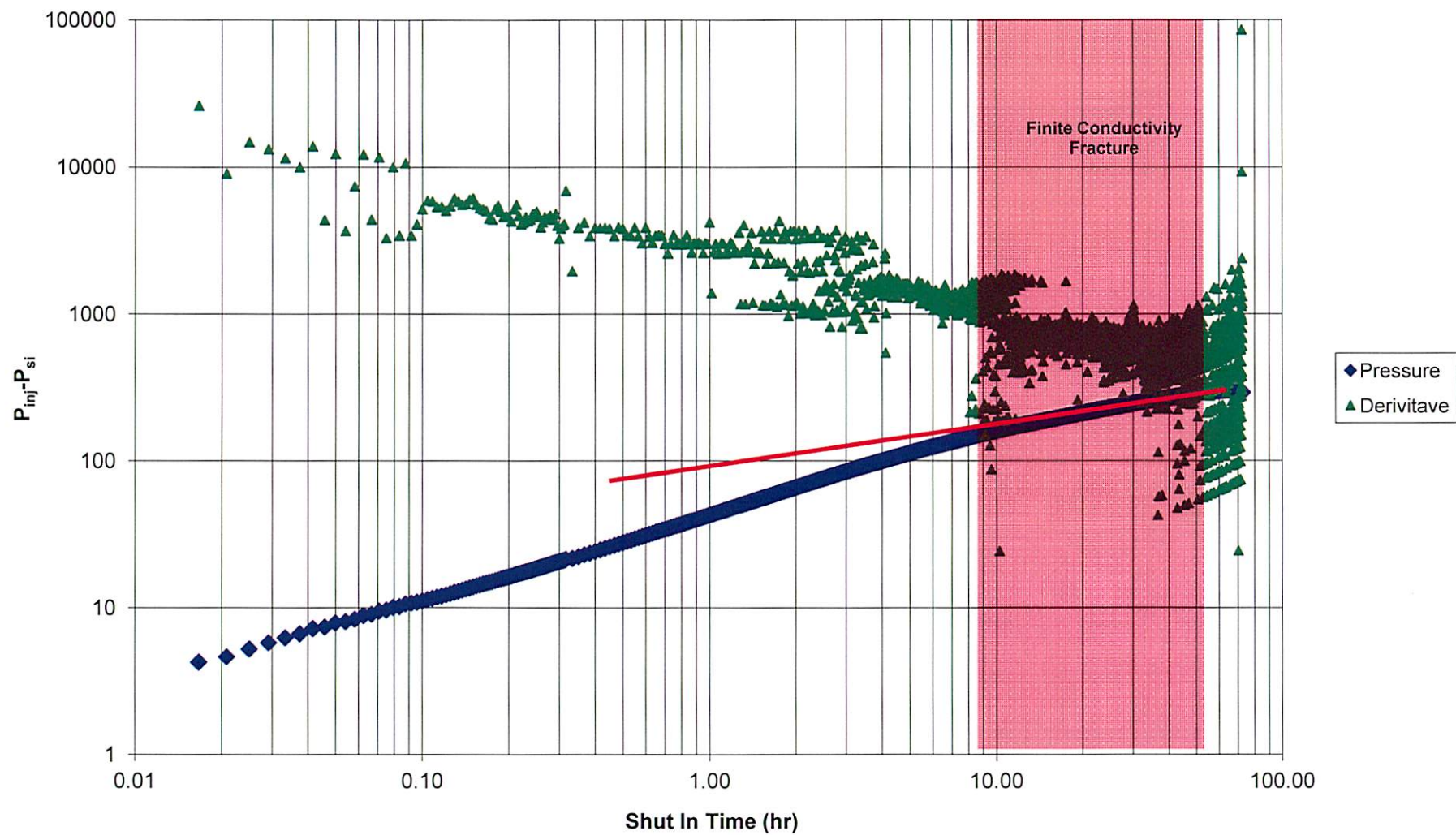


Pressure and Rate



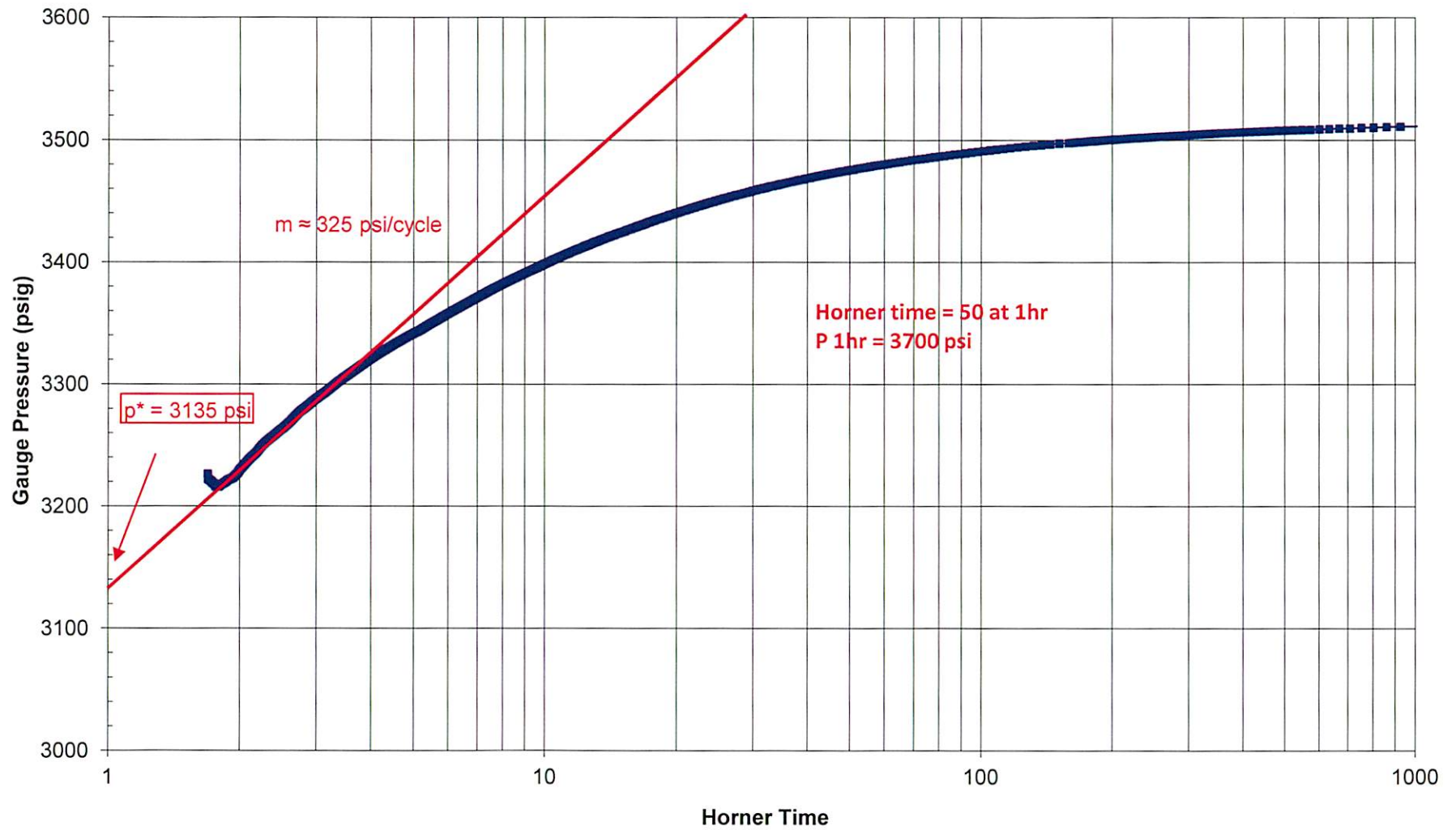


Sunco SWD Derivative Plot





Sunco Disposal Well Horner Plot

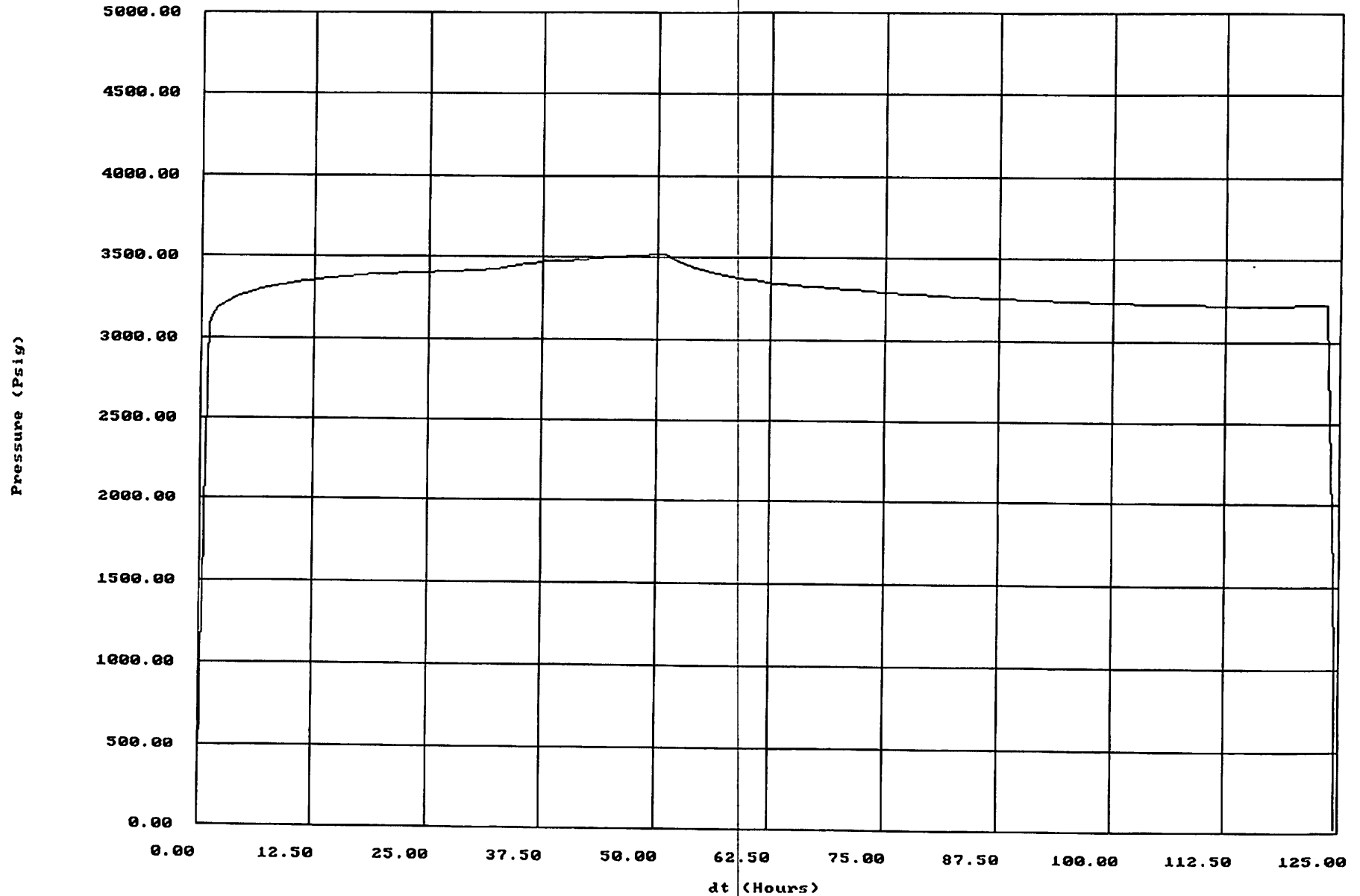


MERRION OIL AND GAS

Pressure vs dt

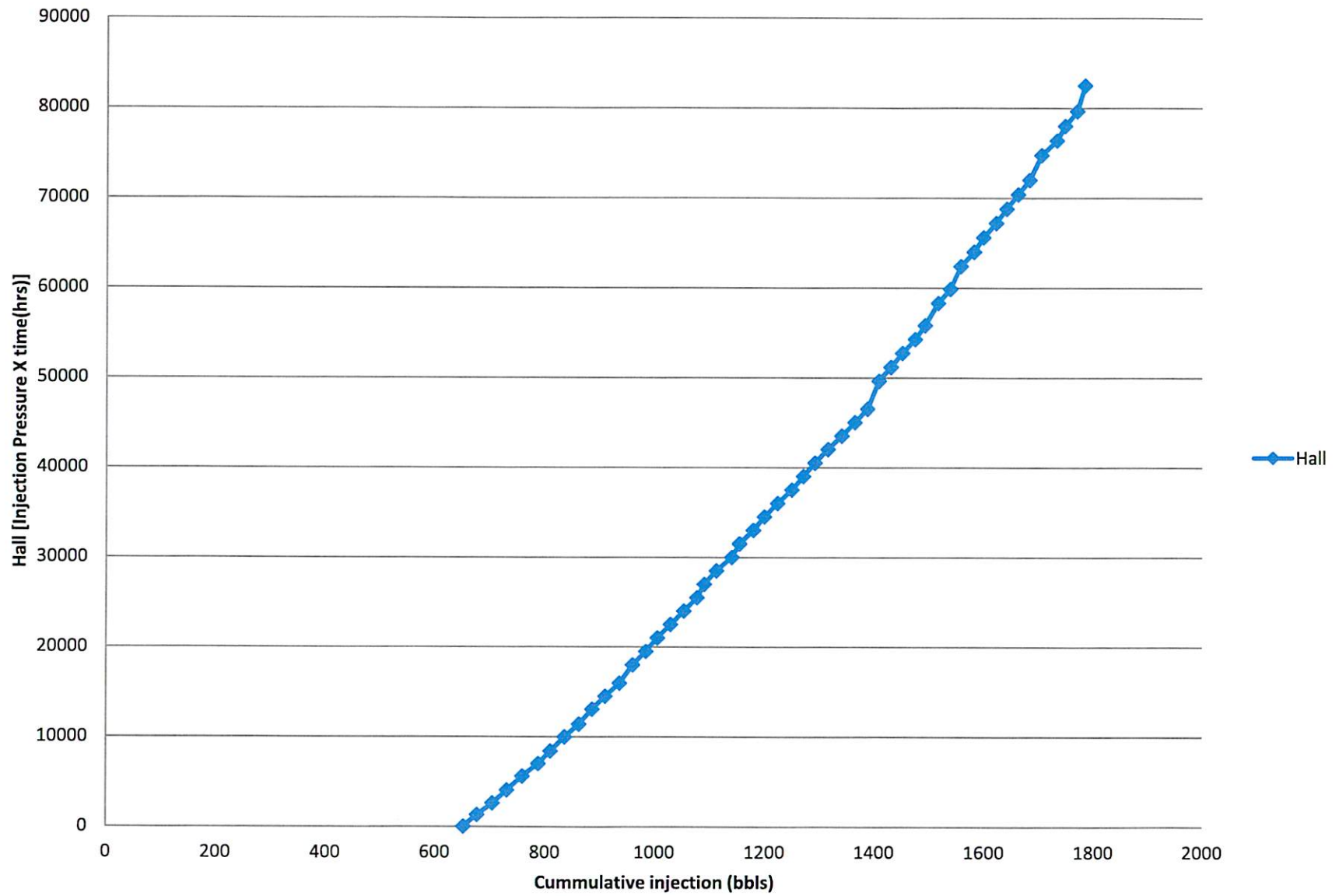
SUNCO SWD NO. 1
SAN JUAN COUNTY, NM
F240217.RED

TEFTELLER, INC.
2-10-14
INJECTION & FALL-OFF TESTS



108 K

Hall Plot



Data Comparison:

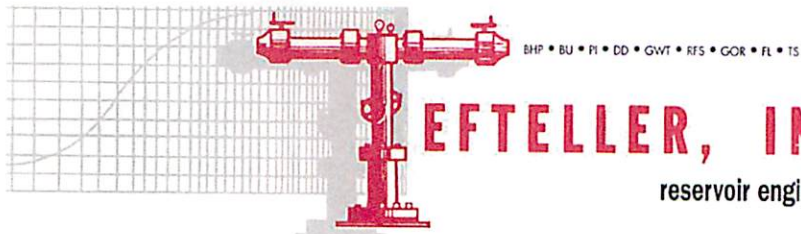
Due to the lack of data from previous falloff tests we were not able to compare all of parameters to the current results:

Table 1: 2014 to 2010 Result Comparison

Parameter	2014	2010
Reservoir Pressure	3135 psi	3231 psi
Permeability	3.36 md	13.6 md
Transmissibility (kh/ μ)	370	-
Skin	-4.1	-7.18
Boundary	None seen	648 ft, 1520 ft
Radius fo investigation	386 ft	1450 ft

Data:

The raw test data obtain during the 2014 falloff test and used for the analysis will be kept on file for a period of three (3) years and will be available upon request.



EFTELLER, INC.

reservoir engineering

P. O. Box 1198
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(505) 325-1731
Fax (505) 325-1148

FARMINGTON, NEW MEXICO/
GRAND JUNCTION, COLORADO

2332 Interstate Ave.
Grand Junction, CO 81505
(970) 241-0403
Fax (970) 241-7634

MERRION OIL AND GAS

SUNCO SWD NO. 1

FEBRUARY 10 – 15, 2014

Serving the Rocky Mountains and the Western Slope



Customer MERRION OIL AND GAS
Street 610 REILLY AVENUE
City/State..... FARMINGTON, NM 87401
Country USA
Service Company TEFTELLER, INC.

Well Name SUNCO SWD NO. 1
Well Location SAN JUAN COUNTY, NM
Field / Pool
Status (Oil, Gas, Other) SALT WATER DISPOSAL

Test Type INJECTION & FALL-OFF TESTS
Date of Test 2-10-14
Producing Interval 4350' - 4460'
Recorder Depth 4405'
Recorder Position 4405'
Shut In Date Start: 2-10-2014
Stop: 2-15-2014
Duration: 125 HRS. TANDEM ELEC. MEMORY INST. TIME
Bottom Hole Temperature 87 DEGREES @ 4405'

Gauge Identification

Gauge Manufacturer MICRO-SMART SYSTEMS
Serial Number 240
Model Number SP2000
Pressure Range
Battery Type
Calibration I.D.
Last Calibration 2/27/13

Gauge Setup Parameters

Probe Set Up Time 2/10/14 10:50: 0
Time Delay to First Reading
Test Type Selection INJECTION & FALL-OFF TESTS
Test Duration Selection 125 HRS. TANDEM ELEC. MEMORY INST. TIME

 *
 * E V E N T S U M M A R Y *
 *

COMPANY : MERRION OIL AND GAS

PAGE : B1

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Key Event	Pressure	Temp
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm		Psig	Deg F
02/10	11:00:00	10.0000	PRESSURED UP LUBRICATOR	1155.33	63.63
02/10	11:06:00	16.0000	SURFACE STOP	1173.12	59.30
02/10	11:16:00	26.0000	STOP @ 1000'	1619.74	66.57
02/10	11:26:00	36.0000	STOP @ 2000'	2060.16	86.75
02/10	11:36:00	46.0000	STOP @ 3000'	2498.36	106.04
02/10	11:46:15	56.2500	STOP @ 4000'	2944.10	121.75
02/10	11:50:15	60.2500	TANDEM ELEC. MEMORY INST. @ 4405'	3105.52	115.43
02/12	14:12:00	3082.0000	STOPPED INJECTING	3507.25	86.82
02/12	14:27:00	3097.0000	WELL SHUT IN FOR FALL-OFF	3496.22	87.15
02/12	14:42:00	3112.0000	BEGAN FALL-OFF	3487.49	87.58
02/15	14:27:00	7417.0000	TANDEM ELEC. MEMORY INST. OFF BOTTOM	3226.56	91.53
02/15	14:38:15	7428.2500	STOP @ 4000'	3045.47	118.35
02/15	14:48:00	7438.0000	STOP @ 3000'	2609.30	107.69
02/15	14:58:15	7448.2500	STOP @ 2000'	2172.31	90.25
02/15	15:08:00	7458.0000	STOP @ 1000'	1734.52	69.62
02/15	15:19:00	7469.0000	SURFACE STOP	1284.64	71.90

COMPANY: MERRION OIL AND GAS

PAGE 1 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/10	10:50:00	.0000	.01	67.04		
02/10	10:58:00	8.0000	.01	63.82	.00	
02/10	10:59:00	9.0000	.01	63.55	.00	
02/10	11:00:00	10.0000	1155.33	63.63	1155.32	PRESSURED UP LUBRICATOR
02/10	11:03:45	13.7500	1168.16	60.60	12.82	
02/10	11:06:00	16.0000	1173.12	59.30	4.96	SURFACE STOP
02/10	11:06:15	16.2500	1195.28	59.23	22.16	
02/10	11:06:30	16.5000	1231.11	59.20	35.83	
02/10	11:06:45	16.7500	1269.09	59.18	37.98	
02/10	11:07:00	17.0000	1306.40	59.16	37.31	
02/10	11:07:15	17.2500	1353.51	59.14	47.11	
02/10	11:07:30	17.5000	1386.12	59.12	32.62	
02/10	11:07:45	17.7500	1424.78	59.10	38.66	
02/10	11:08:00	18.0000	1464.78	59.08	40.00	
02/10	11:08:15	18.2500	1508.54	59.05	43.76	
02/10	11:08:30	18.5000	1553.37	59.03	44.83	
02/10	11:08:45	18.7500	1585.86	59.01	32.49	
02/10	11:09:00	19.0000	1601.30	58.99	15.44	
02/10	11:09:15	19.2500	1611.44	59.23	10.14	
02/10	11:11:15	21.2500	1613.09	62.28	1.66	
02/10	11:14:15	24.2500	1613.07	65.37	-.02	
02/10	11:16:00	26.0000	1619.74	66.57	6.66	STOP @ 1000'
02/10	11:16:15	26.2500	1659.01	66.72	39.27	
02/10	11:16:30	26.5000	1695.87	66.87	36.86	
02/10	11:16:45	26.7500	1729.37	67.04	33.50	
02/10	11:17:00	27.0000	1763.28	67.19	33.90	
02/10	11:17:15	27.2500	1806.58	67.34	43.30	
02/10	11:17:30	27.5000	1849.21	67.50	42.63	
02/10	11:17:45	27.7500	1893.85	67.65	44.64	
02/10	11:18:00	28.0000	1933.80	67.80	39.95	
02/10	11:18:15	28.2500	1974.34	68.21	40.54	
02/10	11:18:30	28.5000	2006.16	69.06	31.82	
02/10	11:18:45	28.7500	2044.15	69.90	37.99	
02/10	11:19:45	29.7500	2053.70	73.25	9.55	
02/10	11:20:45	30.7500	2053.71	76.62	.00	
02/10	11:22:00	32.0000	2053.55	80.05	-.15	
02/10	11:23:30	33.5000	2053.31	83.52	-.24	
02/10	11:26:00	36.0000	2060.16	86.75	6.85	STOP @ 2000'
02/10	11:26:15	36.2500	2099.09	86.96	38.94	
02/10	11:26:30	36.5000	2141.97	87.37	42.88	
02/10	11:26:45	36.7500	2172.79	87.78	30.81	
02/10	11:27:00	37.0000	2206.42	88.19	33.63	
02/10	11:27:15	37.2500	2243.93	88.60	37.51	
02/10	11:27:30	37.5000	2280.64	89.01	36.71	
02/10	11:27:45	37.7500	2318.56	89.41	37.92	
02/10	11:28:00	38.0000	2362.65	89.82	44.08	
02/10	11:28:15	38.2500	2419.07	90.23	56.42	
02/10	11:28:30	38.5000	2465.57	90.64	46.50	
02/10	11:28:45	38.7500	2484.17	91.05	18.60	
02/10	11:30:00	40.0000	2492.62	94.66	8.45	
02/10	11:31:00	41.0000	2492.04	97.84	-.59	
02/10	11:32:00	42.0000	2491.84	101.02	-.20	
02/10	11:34:15	44.2500	2491.54	104.23	-.30	
02/10	11:36:00	46.0000	2498.36	106.04	6.81	STOP @ 3000'
02/10	11:36:15	46.2500	2545.42	106.24	47.06	
02/10	11:36:30	46.5000	2589.53	106.45	44.11	
02/10	11:36:45	46.7500	2630.83	106.65	41.30	
02/10	11:37:00	47.0000	2669.46	106.86	38.63	
02/10	11:37:15	47.2500	2705.26	107.07	35.81	
02/10	11:37:30	47.5000	2738.93	107.28	33.66	
02/10	11:37:45	47.7500	2775.81	107.48	36.89	
02/10	11:38:00	48.0000	2808.55	107.68	32.73	
02/10	11:38:15	48.2500	2838.10	108.07	29.55	
02/10	11:38:30	48.5000	2863.10	108.69	25.01	
02/10	11:38:45	48.7500	2890.92	109.31	27.82	

COMPANY: MERRION OIL AND GAS

PAGE 2 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/10	11:39:00	49.0000	2917.00	109.92	26.08	
02/10	11:40:15	50.2500	2929.53	113.01	12.53	
02/10	11:41:45	51.7500	2929.50	116.37	-.03	
02/10	11:43:45	53.7500	2929.26	119.78	-.24	
02/10	11:46:15	56.2500	2944.10	121.75	14.84	STOP @ 4000'
02/10	11:46:30	56.5000	2961.41	121.91	17.31	
02/10	11:46:45	56.7500	2984.22	122.07	22.80	
02/10	11:47:00	57.0000	2996.31	122.23	12.09	
02/10	11:47:15	57.2500	3011.49	122.37	15.18	
02/10	11:47:30	57.5000	3029.05	121.88	17.56	
02/10	11:47:45	57.7500	3044.47	121.37	15.42	
02/10	11:48:00	58.0000	3067.25	120.88	22.78	
02/10	11:48:15	58.2500	3081.33	120.38	14.08	
02/10	11:48:30	58.5000	3091.13	119.88	9.80	
02/10	11:50:15	60.2500	3105.52	115.43	14.39	TANDEM ELEC. MEMORY INST. @ 4405'
02/10	11:51:00	61.0000	3105.32	111.96	-.20	
02/10	11:51:45	61.7500	3105.50	108.50	.17	
02/10	11:52:30	62.5000	3105.88	105.04	.39	
02/10	11:53:15	63.2500	3106.42	102.02	.53	
02/10	11:55:00	65.0000	3110.98	98.76	4.57	
02/10	11:57:45	67.7500	3112.87	95.60	1.88	
02/10	12:05:00	75.0000	3130.16	95.35	17.30	
02/10	12:05:15	75.2500	3130.90	95.77	.74	
02/10	12:06:15	76.2500	3133.00	99.06	2.10	
02/10	12:07:15	77.2500	3135.39	102.35	2.38	
02/10	12:08:15	78.2500	3137.21	105.73	1.82	
02/10	12:09:30	79.5000	3139.69	109.17	2.48	
02/10	12:10:45	80.7500	3141.53	112.61	1.84	
02/10	12:13:15	83.2500	3145.59	115.83	4.06	
02/10	12:26:30	96.5000	3162.93	116.96	17.34	
02/10	12:26:45	96.7500	3163.30	116.93	.37	
02/10	12:41:45	111.7500	3178.94	115.02	15.64	
02/10	12:56:45	126.7500	3191.78	112.95	12.84	
02/10	13:11:45	141.7500	3199.17	110.55	7.40	
02/10	13:27:00	157.0000	3210.64	108.77	11.47	
02/10	13:42:00	172.0000	3219.85	106.66	9.21	
02/10	13:57:00	187.0000	3227.86	104.76	8.01	
02/10	14:12:00	202.0000	3235.50	103.02	7.64	
02/10	14:27:00	217.0000	3242.28	101.40	6.78	
02/10	14:42:00	232.0000	3248.41	99.96	6.13	
02/10	14:57:00	247.0000	3254.22	98.66	5.82	
02/10	15:12:00	262.0000	3259.55	97.49	5.33	
02/10	15:27:00	277.0000	3264.67	96.41	5.12	
02/10	15:42:00	292.0000	3269.37	95.41	4.70	
02/10	15:57:00	307.0000	3273.98	94.51	4.61	
02/10	16:12:00	322.0000	3278.66	93.68	4.68	
02/10	16:27:00	337.0000	3283.02	92.91	4.35	
02/10	16:42:00	352.0000	3287.10	92.22	4.08	
02/10	16:57:00	367.0000	3291.05	91.65	3.95	
02/10	17:12:00	382.0000	3294.86	91.11	3.81	
02/10	17:27:00	397.0000	3298.41	90.64	3.55	
02/10	17:42:00	412.0000	3301.90	90.24	3.49	
02/10	17:57:00	427.0000	3305.21	89.88	3.31	
02/10	18:12:00	442.0000	3308.63	89.56	3.42	
02/10	18:27:00	457.0000	3311.53	89.27	2.90	
02/10	18:42:00	472.0000	3314.65	89.03	3.12	
02/10	18:57:00	487.0000	3317.38	88.80	2.72	
02/10	19:12:00	502.0000	3319.93	88.60	2.55	
02/10	19:27:00	517.0000	3322.36	88.45	2.43	
02/10	19:42:00	532.0000	3324.86	88.33	2.50	
02/10	19:57:00	547.0000	3327.29	88.21	2.43	
02/10	20:12:00	562.0000	3329.72	88.09	2.43	
02/10	20:27:00	577.0000	3331.95	87.98	2.23	
02/10	20:42:00	592.0000	3334.36	87.88	2.41	
02/10	20:57:00	607.0000	3336.62	87.77	2.26	

COMPANY: MERRION OIL AND GAS

PAGE 3 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/10	21:12:00	622.0000	3338.75	87.68	2.13	
02/10	21:27:00	637.0000	3340.83	87.61	2.08	
02/10	21:42:00	652.0000	3342.77	87.54	1.94	
02/10	21:57:00	667.0000	3344.91	87.44	2.14	
02/10	22:12:00	682.0000	3346.98	87.36	2.07	
02/10	22:27:00	697.0000	3348.71	87.29	1.73	
02/10	22:42:00	712.0000	3350.84	87.23	2.13	
02/10	22:57:00	727.0000	3352.87	87.15	2.03	
02/10	23:12:00	742.0000	3354.66	87.08	1.79	
02/10	23:27:00	757.0000	3356.25	87.01	1.59	
02/10	23:42:00	772.0000	3357.88	86.99	1.63	
02/10	23:57:00	787.0000	3359.49	86.96	1.61	
02/11	00:12:00	802.0000	3360.79	86.95	1.30	
02/11	00:27:00	817.0000	3362.13	86.95	1.34	
02/11	00:42:00	832.0000	3363.32	86.95	1.19	
02/11	00:57:00	847.0000	3364.87	86.93	1.54	
02/11	01:12:00	862.0000	3366.35	86.92	1.48	
02/11	01:27:00	877.0000	3367.84	86.90	1.49	
02/11	01:42:00	892.0000	3370.15	86.89	2.30	
02/11	01:57:00	907.0000	3371.55	86.91	1.41	
02/11	02:12:00	922.0000	3373.22	86.89	1.66	
02/11	02:27:00	937.0000	3375.14	86.86	1.93	
02/11	02:42:00	952.0000	3376.72	86.84	1.58	
02/11	02:57:00	967.0000	3378.21	86.80	1.49	
02/11	03:12:00	982.0000	3379.58	86.80	1.37	
02/11	03:27:00	997.0000	3380.83	86.80	1.25	
02/11	03:42:00	1012.0000	3382.25	86.81	1.42	
02/11	03:57:00	1027.0000	3383.56	86.82	1.32	
02/11	04:12:00	1042.0000	3385.05	86.80	1.49	
02/11	04:27:00	1057.0000	3386.22	86.77	1.17	
02/11	04:42:00	1072.0000	3387.33	86.75	1.11	
02/11	04:57:00	1087.0000	3388.41	86.73	1.08	
02/11	05:12:00	1102.0000	3389.55	86.70	1.14	
02/11	05:27:00	1117.0000	3390.65	86.68	1.09	
02/11	05:42:00	1132.0000	3391.68	86.66	1.03	
02/11	05:57:00	1147.0000	3392.97	86.63	1.29	
02/11	06:12:00	1162.0000	3392.18	86.61	-.79	
02/11	06:27:00	1177.0000	3391.90	86.58	-.28	
02/11	06:42:00	1192.0000	3391.87	86.58	-.03	
02/11	06:57:00	1207.0000	3392.16	86.53	.29	
02/11	07:12:00	1222.0000	3392.66	86.49	.50	
02/11	07:27:00	1237.0000	3393.22	86.45	.56	
02/11	07:42:00	1252.0000	3393.83	86.43	.61	
02/11	07:57:00	1267.0000	3394.45	86.38	.62	
02/11	08:12:00	1282.0000	3395.10	86.34	.65	
02/11	08:27:00	1297.0000	3395.92	86.28	.83	
02/11	08:42:00	1312.0000	3396.63	86.21	.70	
02/11	08:57:00	1327.0000	3397.37	86.17	.75	
02/11	09:12:00	1342.0000	3397.97	86.13	.60	
02/11	09:27:00	1357.0000	3398.44	86.10	.47	
02/11	09:42:00	1372.0000	3398.81	86.10	.37	
02/11	09:57:00	1387.0000	3399.29	86.10	.48	
02/11	10:12:00	1402.0000	3399.79	86.10	.50	
02/11	10:27:00	1417.0000	3400.39	86.10	.59	
02/11	10:42:00	1432.0000	3400.89	86.08	.50	
02/11	10:57:00	1447.0000	3401.34	86.03	.46	
02/11	11:12:00	1462.0000	3401.94	86.00	.60	
02/11	11:27:00	1477.0000	3402.61	85.96	.67	
02/11	11:42:00	1492.0000	3403.25	85.96	.64	
02/11	11:57:00	1507.0000	3403.90	85.94	.65	
02/11	12:12:00	1522.0000	3404.58	85.91	.69	
02/11	12:27:00	1537.0000	3405.29	85.87	.71	
02/11	12:42:00	1552.0000	3405.99	85.83	.70	
02/11	12:57:00	1567.0000	3406.73	85.79	.75	
02/11	13:12:00	1582.0000	3407.51	85.75	.78	

COMPANY: MERRION OIL AND GAS

PAGE 4 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/11	13:27:00	1597.0000	3408.15	85.74	.64	
02/11	13:42:00	1612.0000	3408.79	85.76	.65	
02/11	13:57:00	1627.0000	3409.42	85.75	.63	
02/11	14:12:00	1642.0000	3410.04	85.72	.61	
02/11	14:27:00	1657.0000	3410.73	85.69	.69	
02/11	14:42:00	1672.0000	3411.45	85.65	.72	
02/11	14:57:00	1687.0000	3412.13	85.61	.67	
02/11	15:12:00	1702.0000	3412.85	85.60	.72	
02/11	15:27:00	1717.0000	3413.79	85.54	.94	
02/11	15:42:00	1732.0000	3414.45	85.55	.66	
02/11	15:57:00	1747.0000	3415.19	85.51	.74	
02/11	16:12:00	1762.0000	3415.80	85.48	.61	
02/11	16:27:00	1777.0000	3416.38	85.45	.58	
02/11	16:42:00	1792.0000	3417.08	85.41	.70	
02/11	16:57:00	1807.0000	3417.68	85.39	.59	
02/11	17:12:00	1822.0000	3418.31	85.35	.64	
02/11	17:27:00	1837.0000	3418.99	85.35	.68	
02/11	17:42:00	1852.0000	3419.50	85.35	.51	
02/11	17:57:00	1867.0000	3419.78	85.36	.28	
02/11	18:12:00	1882.0000	3420.79	85.50	1.00	
02/11	18:27:00	1897.0000	3422.16	85.55	1.37	
02/11	18:42:00	1912.0000	3423.45	85.49	1.29	
02/11	18:57:00	1927.0000	3424.37	85.45	.92	
02/11	19:12:00	1942.0000	3423.42	85.41	-.95	
02/11	19:27:00	1957.0000	3429.67	85.39	6.25	
02/11	19:42:00	1972.0000	3433.52	85.41	3.86	
02/11	19:57:00	1987.0000	3436.99	85.43	3.47	
02/11	20:12:00	2002.0000	3439.78	85.46	2.79	
02/11	20:27:00	2017.0000	3442.36	85.50	2.58	
02/11	20:42:00	2032.0000	3444.63	85.53	2.27	
02/11	20:57:00	2047.0000	3446.70	85.53	2.07	
02/11	21:12:00	2062.0000	3447.96	85.53	1.26	
02/11	21:27:00	2077.0000	3449.51	85.53	1.55	
02/11	21:42:00	2092.0000	3451.49	85.53	1.98	
02/11	21:57:00	2107.0000	3453.22	85.55	1.72	
02/11	22:12:00	2122.0000	3454.89	85.61	1.67	
02/11	22:27:00	2137.0000	3456.92	85.66	2.03	
02/11	22:42:00	2152.0000	3457.45	85.69	.53	
02/11	22:57:00	2167.0000	3458.32	85.90	.87	
02/11	23:12:00	2182.0000	3459.42	86.13	1.10	
02/11	23:27:00	2197.0000	3461.93	86.23	2.51	
02/11	23:42:00	2212.0000	3464.15	86.22	2.22	
02/11	23:57:00	2227.0000	3465.20	86.22	1.05	
02/12	00:12:00	2242.0000	3467.22	86.26	2.02	
02/12	00:27:00	2257.0000	3469.25	86.25	2.03	
02/12	00:42:00	2272.0000	3471.63	86.31	2.38	
02/12	00:57:00	2287.0000	3473.76	86.38	2.13	
02/12	01:12:00	2302.0000	3472.85	86.42	-.91	
02/12	01:27:00	2317.0000	3473.38	86.43	.52	
02/12	01:42:00	2332.0000	3474.24	86.44	.86	
02/12	01:57:00	2347.0000	3475.36	86.42	1.13	
02/12	02:12:00	2362.0000	3476.27	86.42	.90	
02/12	02:27:00	2377.0000	3477.20	86.42	.93	
02/12	02:42:00	2392.0000	3478.05	86.43	.85	
02/12	02:57:00	2407.0000	3479.02	86.46	.97	
02/12	03:12:00	2422.0000	3479.89	86.54	.87	
02/12	03:27:00	2437.0000	3480.80	86.56	.91	
02/12	03:42:00	2452.0000	3481.69	86.58	.89	
02/12	03:57:00	2467.0000	3482.78	86.56	1.08	
02/12	04:12:00	2482.0000	3483.77	86.54	.99	
02/12	04:27:00	2497.0000	3484.64	86.51	.88	
02/12	04:42:00	2512.0000	3485.57	86.48	.92	
02/12	04:57:00	2527.0000	3486.44	86.46	.87	
02/12	05:12:00	2542.0000	3487.23	86.44	.79	
02/12	05:27:00	2557.0000	3488.02	86.51	.79	

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/12	05:42:00	2572.0000	3490.21	86.53	2.19	
02/12	05:57:00	2587.0000	3491.74	86.52	1.53	
02/12	06:12:00	2602.0000	3493.21	86.49	1.48	
02/12	06:27:00	2617.0000	3494.49	86.49	1.28	
02/12	06:42:00	2632.0000	3495.78	86.48	1.29	
02/12	06:57:00	2647.0000	3497.05	86.45	1.27	
02/12	07:12:00	2662.0000	3498.28	86.45	1.22	
02/12	07:27:00	2677.0000	3499.59	86.45	1.31	
02/12	07:42:00	2692.0000	3500.67	86.47	1.08	
02/12	07:57:00	2707.0000	3501.80	86.53	1.13	
02/12	08:12:00	2722.0000	3502.73	86.52	.92	
02/12	08:27:00	2737.0000	3503.73	86.53	1.01	
02/12	08:42:00	2752.0000	3504.59	86.53	.85	
02/12	08:57:00	2767.0000	3505.58	86.51	.99	
02/12	09:12:00	2782.0000	3506.52	86.50	.95	
02/12	09:27:00	2797.0000	3507.42	86.48	.90	
02/12	09:42:00	2812.0000	3508.30	86.46	.89	
02/12	09:57:00	2827.0000	3509.14	86.47	.83	
02/12	10:12:00	2842.0000	3509.93	86.53	.79	
02/12	10:27:00	2857.0000	3510.59	86.55	.66	
02/12	10:42:00	2872.0000	3511.08	86.54	.49	
02/12	10:57:00	2887.0000	3511.39	86.53	.31	
02/12	11:12:00	2902.0000	3511.93	86.53	.54	
02/12	11:27:00	2917.0000	3512.67	86.53	.74	
02/12	11:42:00	2932.0000	3513.76	86.53	1.09	
02/12	11:57:00	2947.0000	3514.70	86.51	.94	
02/12	12:12:00	2962.0000	3515.90	86.49	1.20	
02/12	12:27:00	2977.0000	3516.87	86.49	.96	
02/12	12:42:00	2992.0000	3516.62	86.46	-.24	
02/12	12:57:00	3007.0000	3516.78	86.46	.15	
02/12	13:12:00	3022.0000	3517.27	86.51	.49	
02/12	13:27:00	3037.0000	3517.79	86.57	.52	
02/12	13:42:00	3052.0000	3518.49	86.58	.70	
02/12	13:57:00	3067.0000	3519.27	86.59	.78	
02/12	14:12:00	3082.0000	3507.25	86.82	-12.02	STOPPED INJECTING
02/12	14:27:00	3097.0000	3496.22	87.15	-11.03	WELL SHUT IN FOR FALL-OFF
02/12	14:42:00	3112.0000	3487.49	87.58	-8.73	BEGAN FALL-OFF
02/12	14:57:00	3127.0000	3480.05	87.95	-7.43	
02/12	15:12:00	3142.0000	3473.19	88.25	-6.86	
02/12	15:27:00	3157.0000	3466.89	88.50	-6.30	
02/12	15:42:00	3172.0000	3460.99	88.71	-5.90	
02/12	15:57:00	3187.0000	3455.52	88.91	-5.47	
02/12	16:12:00	3202.0000	3450.57	89.05	-4.94	
02/12	16:27:00	3217.0000	3445.60	89.17	-4.97	
02/12	16:42:00	3232.0000	3440.70	89.32	-4.90	
02/12	16:57:00	3247.0000	3436.41	89.44	-4.30	
02/12	17:12:00	3262.0000	3432.19	89.56	-4.22	
02/12	17:27:00	3277.0000	3428.16	89.64	-4.02	
02/12	17:42:00	3292.0000	3424.40	89.72	-3.76	
02/12	17:57:00	3307.0000	3420.77	89.80	-3.64	
02/12	18:12:00	3322.0000	3417.16	89.85	-3.61	
02/12	18:27:00	3337.0000	3413.85	89.92	-3.31	
02/12	18:42:00	3352.0000	3410.46	89.98	-3.39	
02/12	18:57:00	3367.0000	3407.28	90.03	-3.19	
02/12	19:12:00	3382.0000	3404.16	90.08	-3.11	
02/12	19:27:00	3397.0000	3401.08	90.12	-3.09	
02/12	19:42:00	3412.0000	3398.14	90.17	-2.94	
02/12	19:57:00	3427.0000	3395.22	90.22	-2.92	
02/12	20:12:00	3442.0000	3392.63	90.25	-2.59	
02/12	20:27:00	3457.0000	3389.96	90.30	-2.67	
02/12	20:42:00	3472.0000	3387.45	90.32	-2.50	
02/12	20:57:00	3487.0000	3385.04	90.35	-2.41	
02/12	21:12:00	3502.0000	3382.62	90.38	-2.42	
02/12	21:27:00	3517.0000	3380.29	90.41	-2.34	
02/12	21:42:00	3532.0000	3377.87	90.45	-2.41	

COMPANY: MERRION OIL AND GAS

PAGE 6 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/12	21:57:00	3547.0000	3375.58	90.47	-2.29	
02/12	22:12:00	3562.0000	3373.31	90.52	-2.27	
02/12	22:27:00	3577.0000	3371.11	90.55	-2.20	
02/12	22:42:00	3592.0000	3368.92	90.57	-2.18	
02/12	22:57:00	3607.0000	3366.82	90.59	-2.10	
02/12	23:12:00	3622.0000	3364.83	90.63	-1.99	
02/12	23:27:00	3637.0000	3362.88	90.65	-1.95	
02/12	23:42:00	3652.0000	3361.07	90.67	-1.81	
02/12	23:57:00	3667.0000	3359.16	90.70	-1.91	
02/13	00:12:00	3682.0000	3357.31	90.71	-1.85	
02/13	00:27:00	3697.0000	3355.53	90.74	-1.78	
02/13	00:42:00	3712.0000	3353.56	90.76	-1.98	
02/13	00:57:00	3727.0000	3351.93	90.79	-1.63	
02/13	01:12:00	3742.0000	3350.27	90.80	-1.65	
02/13	01:27:00	3757.0000	3348.63	90.81	-1.65	
02/13	01:42:00	3772.0000	3346.84	90.83	-1.79	
02/13	01:57:00	3787.0000	3345.36	90.84	-1.48	
02/13	02:12:00	3802.0000	3343.82	90.88	-1.54	
02/13	02:27:00	3817.0000	3342.63	90.88	-1.19	
02/13	02:42:00	3832.0000	3341.31	90.88	-1.32	
02/13	02:57:00	3847.0000	3339.98	90.90	-1.33	
02/13	03:12:00	3862.0000	3338.61	90.90	-1.36	
02/13	03:27:00	3877.0000	3337.36	90.91	-1.26	
02/13	03:42:00	3892.0000	3336.04	90.93	-1.31	
02/13	03:57:00	3907.0000	3334.74	90.94	-1.30	
02/13	04:12:00	3922.0000	3333.48	90.95	-1.26	
02/13	04:27:00	3937.0000	3332.16	90.96	-1.32	
02/13	04:42:00	3952.0000	3330.92	90.98	-1.23	
02/13	04:57:00	3967.0000	3329.65	90.99	-1.27	
02/13	05:12:00	3982.0000	3328.41	91.00	-1.25	
02/13	05:27:00	3997.0000	3327.26	91.01	-1.15	
02/13	05:42:00	4012.0000	3326.10	91.03	-1.16	
02/13	05:57:00	4027.0000	3324.96	91.05	-1.14	
02/13	06:12:00	4042.0000	3323.78	91.05	-1.18	
02/13	06:27:00	4057.0000	3322.62	91.06	-1.16	
02/13	06:42:00	4072.0000	3321.43	91.07	-1.19	
02/13	06:57:00	4087.0000	3320.31	91.10	-1.12	
02/13	07:12:00	4102.0000	3319.17	91.11	-1.14	
02/13	07:27:00	4117.0000	3317.98	91.12	-1.20	
02/13	07:42:00	4132.0000	3316.69	91.13	-1.29	
02/13	07:57:00	4147.0000	3315.56	91.14	-1.13	
02/13	08:12:00	4162.0000	3314.39	91.17	-1.17	
02/13	08:27:00	4177.0000	3313.28	91.18	-1.10	
02/13	08:42:00	4192.0000	3312.15	91.20	-1.13	
02/13	08:57:00	4207.0000	3311.10	91.20	-1.05	
02/13	09:12:00	4222.0000	3310.01	91.23	-1.10	
02/13	09:27:00	4237.0000	3309.06	91.24	-.95	
02/13	09:42:00	4252.0000	3308.03	91.24	-1.04	
02/13	09:57:00	4267.0000	3307.01	91.26	-1.01	
02/13	10:12:00	4282.0000	3306.04	91.27	-.98	
02/13	10:27:00	4297.0000	3305.04	91.28	-.99	
02/13	10:42:00	4312.0000	3304.03	91.29	-1.01	
02/13	10:57:00	4327.0000	3303.15	91.29	-.89	
02/13	11:12:00	4342.0000	3302.18	91.31	-.97	
02/13	11:27:00	4357.0000	3301.18	91.32	-1.00	
02/13	11:42:00	4372.0000	3300.08	91.34	-1.10	
02/13	11:57:00	4387.0000	3299.13	91.36	-.94	
02/13	12:12:00	4402.0000	3298.09	91.37	-1.05	
02/13	12:27:00	4417.0000	3297.12	91.38	-.97	
02/13	12:42:00	4432.0000	3296.20	91.39	-.91	
02/13	12:57:00	4447.0000	3295.28	91.41	-.93	
02/13	13:12:00	4462.0000	3294.39	91.41	-.89	
02/13	13:27:00	4477.0000	3293.50	91.42	-.90	
02/13	13:42:00	4492.0000	3292.61	91.43	-.89	
02/13	13:57:00	4507.0000	3291.95	91.43	-.66	

COMPANY: MERRION OIL AND GAS

PAGE 7 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/13	14:12:00	4522.0000	3291.19	91.44	-.77	
02/13	14:27:00	4537.0000	3290.36	91.45	-.83	
02/13	14:42:00	4552.0000	3289.49	91.46	-.87	
02/13	14:57:00	4567.0000	3288.80	91.46	-.69	
02/13	15:12:00	4582.0000	3288.00	91.47	-.80	
02/13	15:27:00	4597.0000	3287.21	91.48	-.79	
02/13	15:42:00	4612.0000	3286.45	91.49	-.75	
02/13	15:57:00	4627.0000	3285.69	91.49	-.77	
02/13	16:12:00	4642.0000	3284.83	91.51	-.86	
02/13	16:27:00	4657.0000	3284.01	91.52	-.82	
02/13	16:42:00	4672.0000	3283.22	91.53	-.79	
02/13	16:57:00	4687.0000	3282.46	91.55	-.76	
02/13	17:12:00	4702.0000	3281.65	91.55	-.80	
02/13	17:27:00	4717.0000	3280.91	91.56	-.74	
02/13	17:42:00	4732.0000	3280.20	91.57	-.72	
02/13	17:57:00	4747.0000	3279.60	91.57	-.60	
02/13	18:12:00	4762.0000	3279.06	91.57	-.54	
02/13	18:27:00	4777.0000	3278.27	91.58	-.79	
02/13	18:42:00	4792.0000	3277.53	91.59	-.74	
02/13	18:57:00	4807.0000	3276.77	91.60	-.76	
02/13	19:12:00	4822.0000	3275.92	91.62	-.85	
02/13	19:27:00	4837.0000	3275.01	91.63	-.91	
02/13	19:42:00	4852.0000	3274.15	91.65	-.86	
02/13	19:57:00	4867.0000	3273.37	91.66	-.78	
02/13	20:12:00	4882.0000	3272.41	91.68	-.96	
02/13	20:27:00	4897.0000	3271.56	91.68	-.84	
02/13	20:42:00	4912.0000	3270.76	91.70	-.80	
02/13	20:57:00	4927.0000	3269.99	91.71	-.78	
02/13	21:12:00	4942.0000	3269.23	91.72	-.76	
02/13	21:27:00	4957.0000	3268.47	91.72	-.76	
02/13	21:42:00	4972.0000	3267.73	91.74	-.74	
02/13	21:57:00	4987.0000	3267.03	91.75	-.70	
02/13	22:12:00	5002.0000	3266.40	91.75	-.63	
02/13	22:27:00	5017.0000	3265.72	91.75	-.68	
02/13	22:42:00	5032.0000	3265.06	91.76	-.65	
02/13	22:57:00	5047.0000	3264.46	91.76	-.60	
02/13	23:12:00	5062.0000	3263.93	91.77	-.53	
02/13	23:27:00	5077.0000	3263.45	91.77	-.47	
02/13	23:42:00	5092.0000	3262.96	91.77	-.50	
02/13	23:57:00	5107.0000	3262.39	91.76	-.57	
02/14	00:12:00	5122.0000	3261.84	91.78	-.54	
02/14	00:27:00	5137.0000	3261.27	91.78	-.57	
02/14	00:42:00	5152.0000	3260.72	91.79	-.55	
02/14	00:57:00	5167.0000	3260.18	91.80	-.54	
02/14	01:12:00	5182.0000	3259.59	91.80	-.58	
02/14	01:27:00	5197.0000	3259.03	91.80	-.56	
02/14	01:42:00	5212.0000	3258.50	91.81	-.53	
02/14	01:57:00	5227.0000	3257.96	91.82	-.53	
02/14	02:12:00	5242.0000	3257.43	91.82	-.53	
02/14	02:27:00	5257.0000	3256.99	91.82	-.44	
02/14	02:42:00	5272.0000	3256.55	91.82	-.44	
02/14	02:57:00	5287.0000	3256.13	91.83	-.42	
02/14	03:12:00	5302.0000	3255.54	91.84	-.58	
02/14	03:27:00	5317.0000	3255.05	91.84	-.49	
02/14	03:42:00	5332.0000	3254.57	91.85	-.49	
02/14	03:57:00	5347.0000	3254.07	91.84	-.50	
02/14	04:12:00	5362.0000	3253.54	91.86	-.53	
02/14	04:27:00	5377.0000	3253.09	91.86	-.44	
02/14	04:42:00	5392.0000	3252.62	91.87	-.47	
02/14	04:57:00	5407.0000	3252.09	91.87	-.53	
02/14	05:12:00	5422.0000	3251.54	91.89	-.55	
02/14	05:27:00	5437.0000	3251.02	91.89	-.52	
02/14	05:42:00	5452.0000	3250.56	91.89	-.46	
02/14	05:57:00	5467.0000	3250.04	91.89	-.51	
02/14	06:12:00	5482.0000	3249.34	91.91	-.70	

COMPANY: MERRION OIL AND GAS

PAGE 8 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/14	06:27:00	5497.0000	3248.69	91.92	-.65	
02/14	06:42:00	5512.0000	3248.17	91.93	-.52	
02/14	06:57:00	5527.0000	3247.57	91.94	-.60	
02/14	07:12:00	5542.0000	3246.84	91.96	-.73	
02/14	07:27:00	5557.0000	3246.14	91.97	-.70	
02/14	07:42:00	5572.0000	3245.52	91.98	-.62	
02/14	07:57:00	5587.0000	3244.89	91.99	-.64	
02/14	08:12:00	5602.0000	3244.30	92.00	-.59	
02/14	08:27:00	5617.0000	3243.81	92.00	-.49	
02/14	08:42:00	5632.0000	3243.29	92.01	-.52	
02/14	08:57:00	5647.0000	3242.91	92.00	-.37	
02/14	09:12:00	5662.0000	3242.46	92.01	-.45	
02/14	09:27:00	5677.0000	3242.04	92.01	-.42	
02/14	09:42:00	5692.0000	3241.59	92.01	-.45	
02/14	09:57:00	5707.0000	3241.22	92.01	-.37	
02/14	10:12:00	5722.0000	3240.80	92.01	-.42	
02/14	10:27:00	5737.0000	3240.39	92.02	-.41	
02/14	10:42:00	5752.0000	3239.92	92.03	-.47	
02/14	10:57:00	5767.0000	3239.43	92.02	-.49	
02/14	11:12:00	5782.0000	3238.93	92.04	-.50	
02/14	11:27:00	5797.0000	3238.54	92.04	-.38	
02/14	11:42:00	5812.0000	3238.05	92.04	-.49	
02/14	11:57:00	5827.0000	3237.58	92.06	-.47	
02/14	12:12:00	5842.0000	3237.01	92.07	-.57	
02/14	12:27:00	5857.0000	3236.57	92.07	-.45	
02/14	12:42:00	5872.0000	3236.06	92.07	-.51	
02/14	12:57:00	5887.0000	3235.55	92.09	-.51	
02/14	13:12:00	5902.0000	3235.02	92.09	-.54	
02/14	13:27:00	5917.0000	3234.55	92.10	-.46	
02/14	13:42:00	5932.0000	3234.16	92.10	-.40	
02/14	13:57:00	5947.0000	3233.80	92.09	-.36	
02/14	14:12:00	5962.0000	3233.23	92.11	-.57	
02/14	14:27:00	5977.0000	3232.76	92.12	-.47	
02/14	14:42:00	5992.0000	3232.32	92.13	-.44	
02/14	14:57:00	6007.0000	3231.85	92.14	-.47	
02/14	15:12:00	6022.0000	3231.46	92.14	-.40	
02/14	15:27:00	6037.0000	3231.00	92.14	-.45	
02/14	15:42:00	6052.0000	3230.65	92.14	-.35	
02/14	15:57:00	6067.0000	3230.05	92.16	-.59	
02/14	16:12:00	6082.0000	3229.42	92.16	-.63	
02/14	16:27:00	6097.0000	3228.84	92.18	-.59	
02/14	16:42:00	6112.0000	3228.31	92.18	-.53	
02/14	16:57:00	6127.0000	3227.72	92.20	-.59	
02/14	17:12:00	6142.0000	3227.21	92.21	-.51	
02/14	17:27:00	6157.0000	3226.78	92.21	-.43	
02/14	17:42:00	6172.0000	3226.43	92.21	-.35	
02/14	17:57:00	6187.0000	3226.08	92.21	-.35	
02/14	18:12:00	6202.0000	3225.69	92.21	-.40	
02/14	18:27:00	6217.0000	3225.27	92.21	-.41	
02/14	18:42:00	6232.0000	3225.03	92.21	-.24	
02/14	18:57:00	6247.0000	3224.63	92.22	-.40	
02/14	19:12:00	6262.0000	3224.29	92.21	-.34	
02/14	19:27:00	6277.0000	3223.93	92.22	-.37	
02/14	19:42:00	6292.0000	3223.61	92.22	-.32	
02/14	19:57:00	6307.0000	3223.34	92.22	-.28	
02/14	20:12:00	6322.0000	3223.24	92.21	-.09	
02/14	20:27:00	6337.0000	3223.05	92.20	-.19	
02/14	20:42:00	6352.0000	3222.88	92.20	-.17	
02/14	20:57:00	6367.0000	3222.67	92.19	-.20	
02/14	21:12:00	6382.0000	3222.52	92.18	-.16	
02/14	21:27:00	6397.0000	3222.41	92.18	-.10	
02/14	21:42:00	6412.0000	3222.20	92.18	-.21	
02/14	21:57:00	6427.0000	3222.16	92.17	-.04	
02/14	22:12:00	6442.0000	3222.06	92.16	-.10	
02/14	22:27:00	6457.0000	3221.91	92.16	-.15	

COMPANY: MERRION OIL AND GAS

PAGE 9 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/14	22:42:00	6472.0000	3221.74	92.15	-.17	
02/14	22:57:00	6487.0000	3221.51	92.16	-.23	
02/14	23:12:00	6502.0000	3221.36	92.16	-.15	
02/14	23:27:00	6517.0000	3221.06	92.17	-.30	
02/14	23:42:00	6532.0000	3220.74	92.18	-.32	
02/14	23:57:00	6547.0000	3220.43	92.18	-.31	
02/15	00:12:00	6562.0000	3220.25	92.18	-.18	
02/15	00:27:00	6577.0000	3220.04	92.18	-.21	
02/15	00:42:00	6592.0000	3219.82	92.18	-.22	
02/15	00:57:00	6607.0000	3219.63	92.19	-.19	
02/15	01:12:00	6622.0000	3219.45	92.18	-.18	
02/15	01:27:00	6637.0000	3219.22	92.19	-.23	
02/15	01:42:00	6652.0000	3219.00	92.19	-.23	
02/15	01:57:00	6667.0000	3218.88	92.19	-.12	
02/15	02:12:00	6682.0000	3218.73	92.18	-.15	
02/15	02:27:00	6697.0000	3218.65	92.18	-.08	
02/15	02:42:00	6712.0000	3218.47	92.18	-.17	
02/15	02:57:00	6727.0000	3218.32	92.18	-.15	
02/15	03:12:00	6742.0000	3218.17	92.18	-.15	
02/15	03:27:00	6757.0000	3218.03	92.18	-.14	
02/15	03:42:00	6772.0000	3217.86	92.18	-.17	
02/15	03:57:00	6787.0000	3217.51	92.20	-.35	
02/15	04:12:00	6802.0000	3217.29	92.21	-.23	
02/15	04:27:00	6817.0000	3217.10	92.21	-.19	
02/15	04:42:00	6832.0000	3216.86	92.21	-.24	
02/15	04:57:00	6847.0000	3216.67	92.22	-.19	
02/15	05:12:00	6862.0000	3216.48	92.21	-.19	
02/15	05:27:00	6877.0000	3216.18	92.23	-.30	
02/15	05:42:00	6892.0000	3216.22	92.21	.03	
02/15	05:57:00	6907.0000	3216.24	92.19	.03	
02/15	06:12:00	6922.0000	3216.23	92.18	-.01	
02/15	06:27:00	6937.0000	3216.14	92.18	-.09	
02/15	06:42:00	6952.0000	3216.05	92.18	-.09	
02/15	06:57:00	6967.0000	3216.01	92.18	-.04	
02/15	07:12:00	6982.0000	3215.98	92.17	-.02	
02/15	07:27:00	6997.0000	3216.35	92.14	.37	
02/15	07:42:00	7012.0000	3216.89	92.06	.54	
02/15	07:57:00	7027.0000	3217.30	92.01	.41	
02/15	08:12:00	7042.0000	3217.69	91.99	.39	
02/15	08:27:00	7057.0000	3218.01	91.95	.32	
02/15	08:42:00	7072.0000	3218.30	91.94	.29	
02/15	08:57:00	7087.0000	3218.42	91.94	.12	
02/15	09:12:00	7102.0000	3218.68	91.94	.26	
02/15	09:27:00	7117.0000	3218.89	91.93	.20	
02/15	09:42:00	7132.0000	3218.99	91.93	.10	
02/15	09:57:00	7147.0000	3219.14	91.93	.15	
02/15	10:12:00	7162.0000	3219.31	91.92	.17	
02/15	10:27:00	7177.0000	3219.68	91.89	.37	
02/15	10:42:00	7192.0000	3219.97	91.85	.29	
02/15	10:57:00	7207.0000	3220.31	91.82	.34	
02/15	11:12:00	7222.0000	3220.57	91.81	.27	
02/15	11:27:00	7237.0000	3220.84	91.80	.27	
02/15	11:42:00	7252.0000	3220.93	91.80	.09	
02/15	11:57:00	7267.0000	3221.03	91.80	.09	
02/15	12:12:00	7282.0000	3221.06	91.83	.03	
02/15	12:27:00	7297.0000	3221.31	91.82	.25	
02/15	12:42:00	7312.0000	3221.53	91.80	.22	
02/15	12:57:00	7327.0000	3221.74	91.78	.21	
02/15	13:12:00	7342.0000	3221.95	91.75	.21	
02/15	13:27:00	7357.0000	3222.17	91.74	.22	
02/15	13:42:00	7372.0000	3222.26	91.75	.09	
02/15	13:57:00	7387.0000	3222.31	91.71	.05	
02/15	14:12:00	7402.0000	3226.14	91.70	3.83	
02/15	14:27:00	7417.0000	3226.56	91.53	.42	TANDEM ELEC. MEMORY INST. OFF BOTTOM
02/15	14:28:00	7418.0000	3226.61	91.53	.05	

COMPANY: MERRION OIL AND GAS

PAGE 10 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/15	14:29:00	7419.0000	3192.96	91.52	-33.65	
02/15	14:29:15	7419.2500	3172.66	91.58	-20.31	
02/15	14:29:30	7419.5000	3151.63	92.59	-21.03	
02/15	14:29:45	7419.7500	3130.47	93.59	-21.16	
02/15	14:30:00	7420.0000	3107.82	94.61	-22.65	
02/15	14:30:15	7420.2500	3085.18	95.61	-22.64	
02/15	14:30:30	7420.5000	3062.40	96.62	-22.78	
02/15	14:31:15	7421.2500	3046.15	99.65	-16.25	
02/15	14:32:00	7422.0000	3046.53	102.68	.39	
02/15	14:32:45	7422.7500	3046.57	105.93	.04	
02/15	14:33:45	7423.7500	3046.49	109.57	-.08	
02/15	14:34:45	7424.7500	3045.98	113.21	-.51	
02/15	14:36:30	7426.5000	3045.69	116.23	-.29	
02/15	14:38:15	7428.2500	3045.47	118.35	-.23	STOP @ 4000'
02/15	14:38:30	7428.5000	3023.59	118.30	-21.88	
02/15	14:38:45	7428.7500	2991.34	118.25	-32.25	
02/15	14:39:00	7429.0000	2958.95	118.21	-32.39	
02/15	14:39:15	7429.2500	2926.44	118.16	-32.52	
02/15	14:39:30	7429.5000	2893.65	118.12	-32.79	
02/15	14:39:45	7429.7500	2860.47	118.07	-33.18	
02/15	14:40:00	7430.0000	2827.15	118.03	-33.32	
02/15	14:40:15	7430.2500	2793.43	117.98	-33.72	
02/15	14:40:30	7430.5000	2755.70	117.94	-37.74	
02/15	14:40:45	7430.7500	2717.56	117.89	-38.13	
02/15	14:41:00	7431.0000	2679.03	117.85	-38.53	
02/15	14:41:15	7431.2500	2640.41	117.46	-38.62	
02/15	14:41:30	7431.5000	2609.22	116.96	-31.20	
02/15	14:43:00	7433.0000	2608.51	113.91	-.70	
02/15	14:44:45	7434.7500	2608.64	110.91	.13	
02/15	14:48:00	7438.0000	2609.30	107.69	.65	STOP @ 3000'
02/15	14:49:00	7439.0000	2508.09	107.22	-101.20	
02/15	14:49:15	7439.2500	2468.21	107.15	-39.88	
02/15	14:49:30	7439.5000	2427.59	106.65	-40.62	
02/15	14:49:45	7439.7500	2387.11	106.16	-40.48	
02/15	14:50:00	7440.0000	2346.23	105.66	-40.89	
02/15	14:50:15	7440.2500	2304.93	105.17	-41.29	
02/15	14:50:30	7440.5000	2263.91	104.67	-41.02	
02/15	14:50:45	7440.7500	2221.55	104.17	-42.36	
02/15	14:51:00	7441.0000	2187.36	103.67	-34.19	
02/15	14:52:30	7442.5000	2171.27	100.19	-16.08	
02/15	14:53:45	7443.7500	2171.46	96.92	.19	
02/15	14:55:00	7445.0000	2172.06	93.67	.60	
02/15	14:57:45	7447.7500	2172.26	90.67	.20	
02/15	14:58:15	7448.2500	2172.31	90.25	.04	STOP @ 2000'
02/15	14:58:30	7448.5000	2147.15	89.87	-25.15	
02/15	14:58:45	7448.7500	2117.01	89.48	-30.14	
02/15	14:59:00	7449.0000	2082.44	89.10	-34.57	
02/15	14:59:15	7449.2500	2038.89	88.71	-43.55	
02/15	14:59:30	7449.5000	1994.80	88.33	-44.09	
02/15	14:59:45	7449.7500	1950.31	87.94	-44.49	
02/15	15:00:00	7450.0000	1905.41	87.56	-44.90	
02/15	15:00:15	7450.2500	1860.52	87.17	-44.89	
02/15	15:00:30	7450.5000	1815.49	86.79	-45.03	
02/15	15:00:45	7450.7500	1769.79	86.40	-45.70	
02/15	15:01:00	7451.0000	1735.61	86.02	-34.18	
02/15	15:02:00	7452.0000	1732.60	82.53	-3.01	
02/15	15:03:00	7453.0000	1733.63	79.03	1.02	
02/15	15:04:00	7454.0000	1733.99	75.53	.37	
02/15	15:06:00	7456.0000	1734.24	72.05	.24	
02/15	15:08:00	7458.0000	1734.52	69.62	.28	STOP @ 1000'
02/15	15:09:00	7459.0000	1654.21	68.98	-80.31	
02/15	15:09:15	7459.2500	1623.79	68.86	-30.42	
02/15	15:09:30	7459.5000	1593.17	68.52	-30.63	
02/15	15:09:45	7459.7500	1562.67	68.19	-30.50	
02/15	15:10:00	7460.0000	1531.24	67.84	-31.43	

COMPANY: MERRION OIL AND GAS

PAGE 11 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/15	15:10:15	7460.2500	1499.40	67.51	-31.84	
02/15	15:10:30	7460.5000	1466.89	67.17	-32.51	
02/15	15:10:45	7460.7500	1433.97	66.83	-32.91	
02/15	15:11:00	7461.0000	1401.19	66.50	-32.78	
02/15	15:11:15	7461.2500	1367.20	66.16	-33.99	
02/15	15:11:30	7461.5000	1335.77	65.82	-31.44	
02/15	15:11:45	7461.7500	1317.20	65.49	-18.56	
02/15	15:12:00	7462.0000	1302.26	65.15	-14.94	
02/15	15:12:15	7462.2500	1291.92	64.67	-10.34	
02/15	15:16:15	7466.2500	1290.79	67.92	-1.13	
02/15	15:19:00	7469.0000	1284.64	71.90	-6.15	SURFACE STOP
02/15	15:20:15	7470.2500	1280.50	72.69	-4.13	
02/15	15:20:30	7470.5000	1250.04	72.83	-30.46	
02/15	15:20:45	7470.7500	1158.68	72.97	-91.37	
02/15	15:21:00	7471.0000	1096.28	73.11	-62.40	
02/15	15:21:15	7471.2500	1018.86	73.25	-77.42	
02/15	15:21:30	7471.5000	949.49	73.39	-69.37	
02/15	15:21:45	7471.7500	81.55	73.53	-867.93	
02/15	15:22:00	7472.0000	28.49	73.66	-53.07	
02/15	15:22:15	7472.2500	28.75	73.72	.27	
02/15	15:22:30	7472.5000	2.01	73.74	-26.74	
02/15	15:28:15	7478.2500	.01	70.41	-2.00	

Company: MERRION OIL AND GAS
Well: SUNCO SWD NO. 1
Field:
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000
Gauge Depth: 4405 ft
Serial No.: 240

County: SAN JUAN
State: NEW MEXICO
Date: 02/10/2014
Well Type: SALT WATER DISP.
Test Type: GRADIENT
Status: INJECTING WATER
File Name: 64920A

Tubing: 2-7/8" TO 4282'
Tubing: TO
Casing: TO
Perfs.: 4350' - 4460'

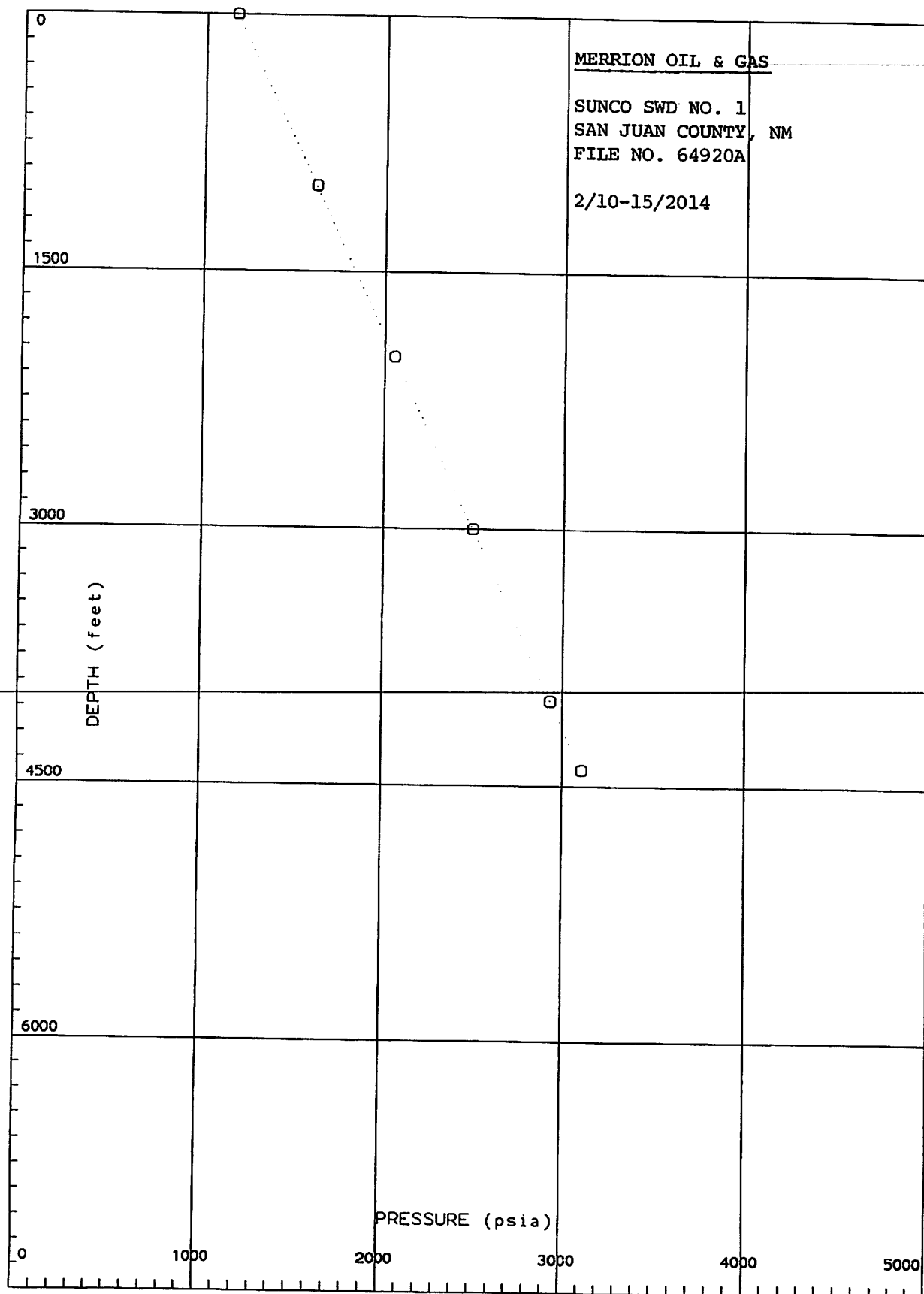
Packer Depth 4282 ft
Oil Level
H2O Level

Flowing BHP 3106 @ 4405 ft Flowing BHT 87 F @ 4405 ft
Flowing WHP 1168 Flowing WHT 0 F

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1168.00	
2	1000	1000	1613.00	0.445
3	2000	2000	2053.00	0.440
4	3000	3000	2491.00	0.438
5	4000	4000	2929.00	0.438
6	4405	4405	3106.00	0.437

WATER LEVEL - INJECTING



Company: MERRION OIL AND GAS
Well: SUNCO SWD NO. 1
Field:
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000'
Gauge Depth: 4405 ft
Serial No.: 240

County: SAN JUAN
State: NEW MEXIO
Date: 02/15/2014
Well Type: SALT WATER DISP.
Test Type: GRADIENT
Status: SHUT IN
File Name: 64920B

Tubing: 2-7/8" TO 4282'
Tubing: TO
Casing: TO
Perfs.:
Shut-in Time 72 hrs

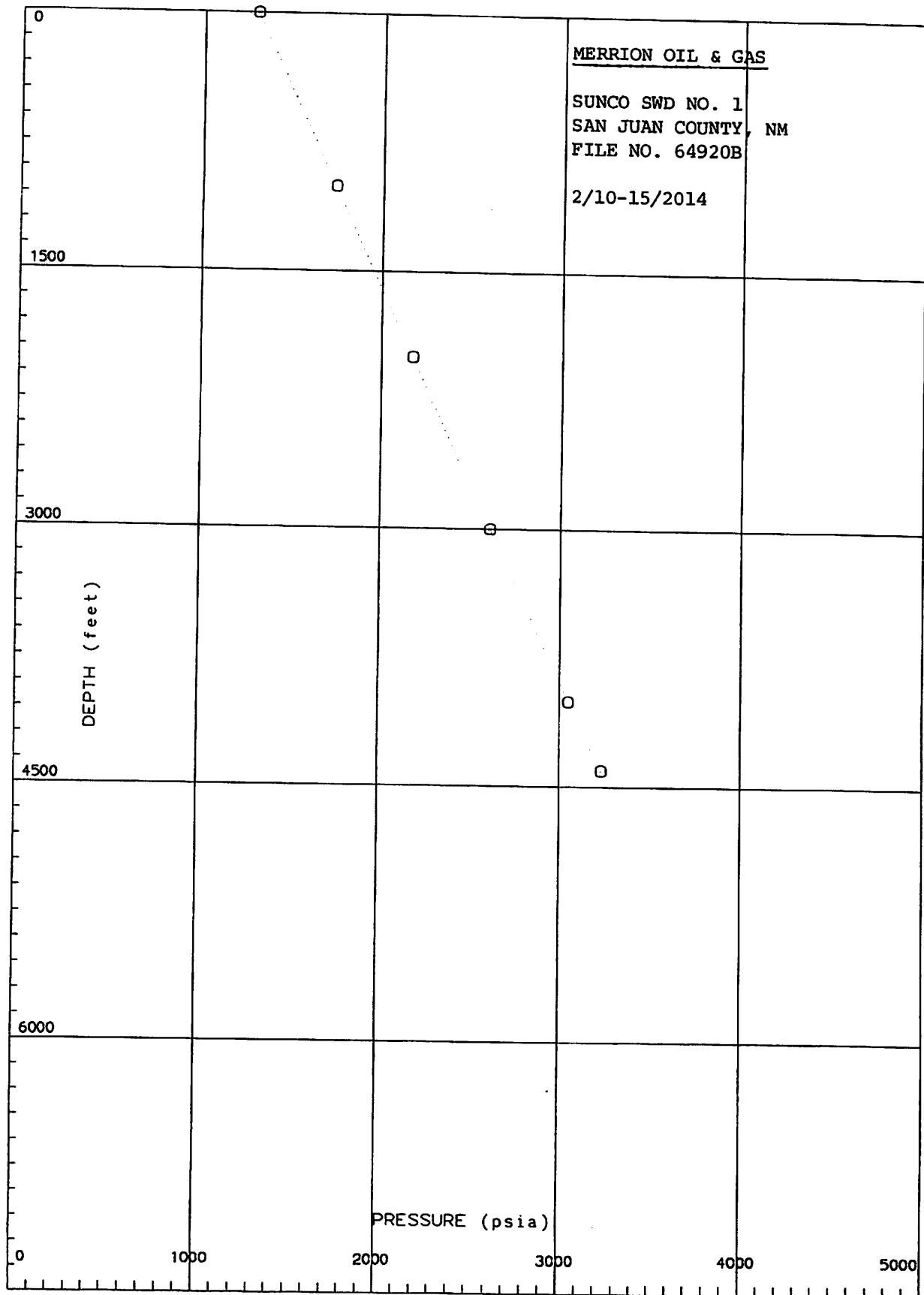
Packer Depth 4282 ft
Oil Level
H2O Level

Shut-in BHP 3227 @ 4405 ft Shut-in BHT 92 F @ 4405 ft
Shut-in WHP 1290 Shut-in WHT 0 F

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	4405	4405	3227.00	
2	4000	4000	3045.00	0.449
3	3000	3000	2609.00	0.436
4	2000	2000	2172.00	0.437
5	1000	1000	1735.00	0.437
6	0	0	1290.00	0.445

WATER LEVEL @ SURFACE



Sunco SWD #1
30-045-28653
Class I Disposal: UICI-5-0
2014 Falloff Test

Agua Moss, LLC
P.O Box 600
Farmington, NM 87499
ORGID 247130

Report Components:

1. Facility Operator Information
 - a. Agua Moss, LLC
 - b. PO Box 600 Farmington, NM 87499
 - c. OGRID 247130
2. Well Information:
 - a. UIC Permit # UICI-5-0
 - b. Class I
 - c. Sunco Disposal #1
 - d. 30-045-28653
 - e. UL E, Sec 2, T29N, R12W 1595 FNL & 1005 FWL San Juan County
3. Current Wellbore Diagram: **Attached**
4. Copy of Electronic Log: **Attached**
5. Copy of Porosity Log: **Attached**
6. NO PVT data necessary, injected fluid is fresh-to-slightly saline water. No significant hydrocarbons present that would alter the density, compressibility and/or viscosity of the fluid.
7. The Agua Moss, LLC internal Daily Injection Reports were used to determine the appropriate injection history to use for the analysis. A summary of those reports (November 2013 through January 2014) are attached.
8. Approximately 132,329,914 bbls has been injected into the point lookout formation utilizing the Sunco SWD #1 from 1994 through March 2014 (see attached). The offset well McGrath SWD #4 API 30-045-25923 was plugged 7/25/2013. Cumulative injection 1994-7/2013 27,746,479 bbls.
9. Pressure Gauges information: (see attached)
 - a. SP-2000 Memory Pressure Gauge
 - b. Pressure range: **0-5000 psig**
 - c. Last Calibration: **2/27/13**
10. 1 Mile Area of Review (AOR):
 - a. Well list: **See attached**
 - b. Well status: **See attached**
 - c. The McGrath #4 was the only offset well that was injecting into the Point Lookout formation within 1 mile. This well was plugged 7/25/2013. **See attached P&A report.**
11. Geological information was provided in the last Permit renewal submitted and approved in 2012.
12. Offset Wells: One offset well that was completed in the same injection interval was the McGrath #4 (see #10). This well was plugged 7/2013 and therefore was not impacted.
13. Chronological listing of the daily, testing activities (Event Summary) attached
 - a. Date of Test: **2/10/2014 thru 02/15/2014**
 - b. Time of the injection period: **50 hours**
 - c. Type of injection fluid: **Produced water**
 - d. Final injection pressure & temp prior to shutting in the well: **3519 psi, 86.6 °F**

- e. Total shut-in time: **72 hours**
 - f. Final static pressure & temp at the end of the fall-off portion of the test: **3226 psi, 91.7 °F**
14. Location of the shut in valve: **A wing valve located on the well's Christmas Tree was closed to begin the FOT**
15. See attached falloff test calculations:
16. Any pressure or temperature anomaly: **None seen**
17. See falloff test calculations
18. Plots attached
19. Results Comparison attached
20. The raw test data will be kept on file for a period of 3-year and will be made available to the NMOCD upon written request.

Wellbore Schematic:

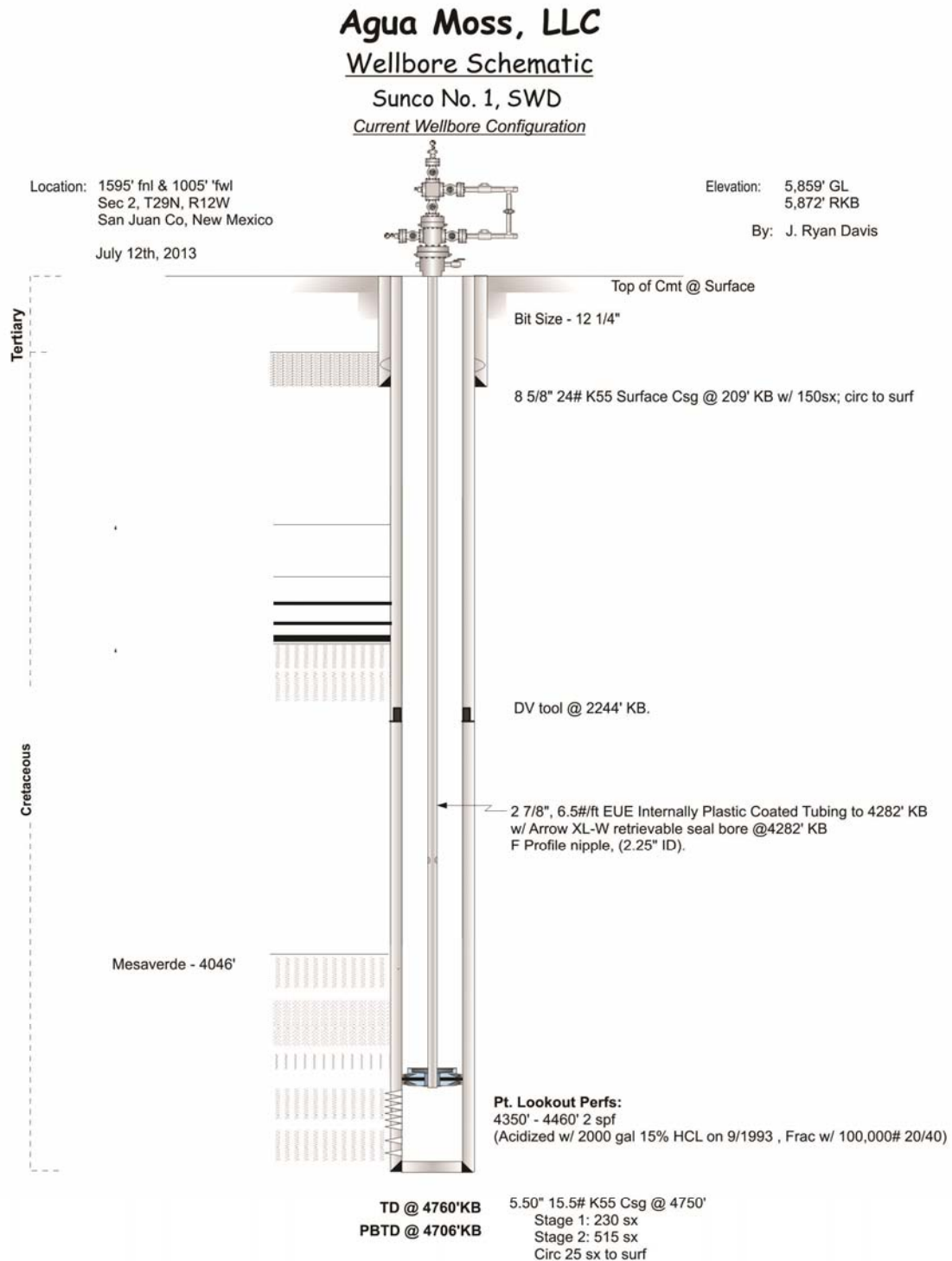
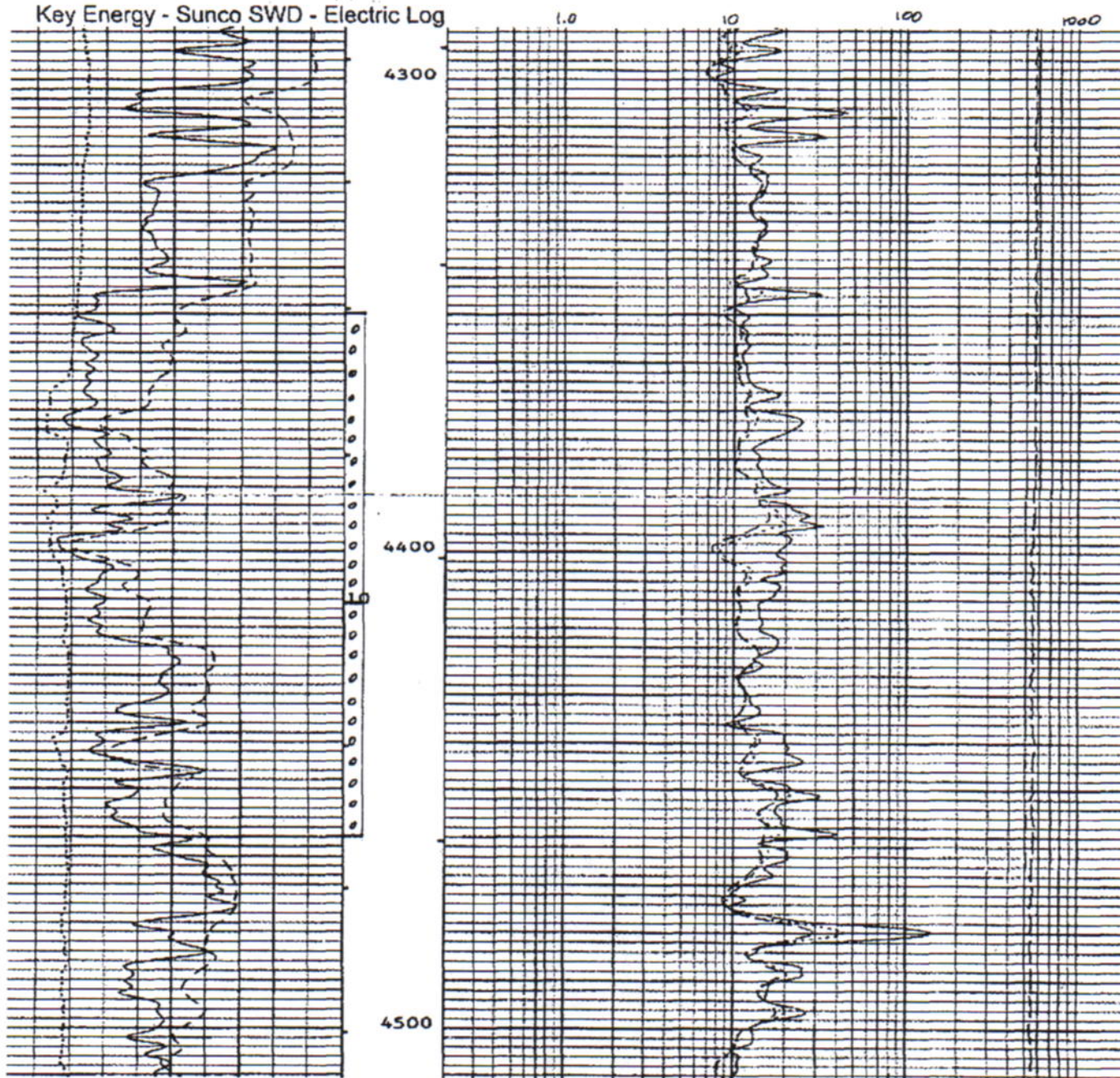


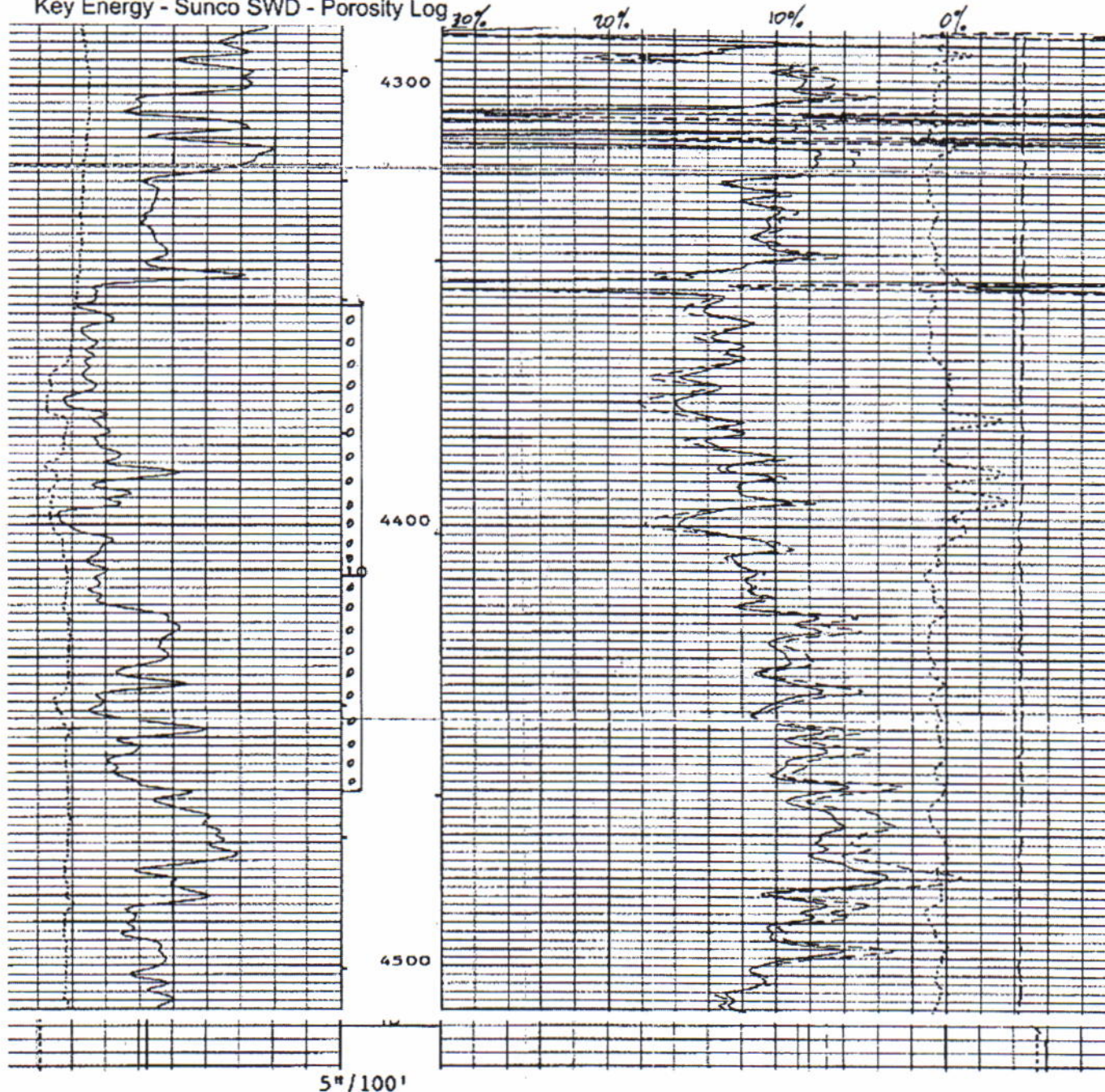
Figure 1: Wellbore Schematic

Key Energy - Sunco SWD - Electric Log



		TENS(LBF)	
		10000	0.0
CAL(I(N)		SFLU(OHMM)	
3.0000	16.000	20000	2000.0
GR(GAP)		ILD(OHMM)	
3.0	200.00	20000	2000.0
SP(MV)		ILM(OHMM)	
80.00	20.000	20000	2000.0

Key Energy - Sunco SWD - Porosity Log



CP 32.6

FILE 6

01-FEB-1992 20:21

(UP)

CALI (IN.)		RHO (G/C3)	
5.0000	16.000	2500	25000
GR (GAPI)		TENS (LBF)	
0.0	200.00	10000	0.0
		RHO (G/C3)	
		2.0000	3.0000
		DPH (V/V)	
		30000	1000

Daily Rate History:

Table 1: Daily Injection Volumes

Injection Volumes								
	Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow
11/1/2013			12/1/2013			1/1/2014		
11/2/2013			12/2/2013	932	27.18	1/2/2014		
11/3/2013			12/3/2013	2178	63.53	1/3/2014		
11/4/2013	661	19.28	12/4/2013	1517	44.25	1/4/2014		
11/5/2013			12/5/2013	197	5.75	1/5/2014		
11/6/2013	421	12.28	12/6/2013	497	14.50	1/6/2014		
11/7/2013	354	10.33	12/7/2013			1/7/2014		
11/8/2013	196	5.72	12/8/2013			1/8/2014		
11/9/2013			12/9/2013			1/9/2014		
11/10/2013			12/10/2013			1/10/2014		
11/11/2013	195	5.69	12/11/2013			1/11/2014		
11/12/2013	217	6.33	12/12/2013	169	4.93	1/12/2014		
11/13/2013	213	6.21	12/13/2013	473	13.80	1/13/2014		
11/14/2013	570	16.63	12/14/2013			1/14/2014		
11/15/2013			12/15/2013			1/15/2014		
11/16/2013			12/16/2013	110	3.21	1/16/2014		
11/17/2013			12/17/2013	130	3.79	1/17/2014		
11/18/2013	385	11.23	12/18/2013	256	7.47	1/18/2014		
11/19/2013	308	8.98	12/19/2013			1/19/2014		
11/20/2013	353	10.30	12/20/2013			1/20/2014		
11/21/2013			12/21/2013			1/21/2014	26	0.76
11/22/2013	359	10.47	12/22/2013			1/22/2014	37	1.08
11/23/2013			12/23/2013			1/23/2014		
11/24/2013			12/24/2013			1/24/2014		
11/25/2013			12/25/2013			1/25/2014		
11/26/2013	310	9.04	12/26/2013			1/26/2014		
11/27/2013	446	13.01	12/27/2013			1/27/2014		
11/28/2013			12/28/2013			1/28/2014		
11/29/2013	807	23.54	12/29/2013			1/29/2014		
11/30/2013			12/30/2013			1/30/2014		
			12/31/2013			1/31/2014		
Avg	386.33	11.27		645.90	18.84	AVG	31.50	0.92
Min	807.00	23.54		2178.00	63.53	MAX	37.00	1.08
Max	195.00	5.69		110.00	3.21	MIN	26.00	0.76
Month Total	5795			6459			63	

Table 2: Wellhead and Annular Pressures

Wellhead & Annular Pressures								
WH AP			WH AP			WH AP		
11/1/13	1600.00	210.00	12/1/13			1/1/14	1400.00	250.00
11/2/13			12/2/13	1950.00	50.00	1/2/14	1400.00	250.00
11/3/13			12/3/13	2050.00	50.00	1/3/14	1400.00	250.00
11/4/13	1850.00	45.00	12/4/13	2050.00	50.00	1/4/14		
11/5/13	1600.00	320.00	12/5/13	1900.00	50.00	1/5/14		
11/6/13	1650.00	170.00	12/6/13	1900.00	50.00	1/6/14	1400.00	250.00
11/7/13	1850.00	110.00	12/7/13			1/7/14	1400.00	250.00
11/8/13	1650.00	230.00	12/8/13			1/8/14	1400.00	250.00
11/9/13			12/9/13	1600.00	100.00	1/9/14	1400.00	250.00
11/10/13			12/10/13	1450.00	120.00	1/10/14	1400.00	250.00
11/11/13	1600.00	280.00	12/11/13	1400.00	150.00	1/11/14		
11/12/13	1600.00	280.00	12/12/13	1650.00	50.00	1/12/14		
11/13/13	1650.00	150.00	12/13/13	1800.00	50.00	1/13/14	1200.00	250.00
11/14/13	1850.00	50.00	12/14/13			1/14/14	1200.00	250.00
11/15/13	1600.00	250.00	12/15/13			1/15/14	1200.00	250.00
11/16/13			12/16/13	1650.00	50.00	1/16/14	1200.00	250.00
11/17/13			12/17/13	1700.00	0.00	1/17/14	1200.00	250.00
11/18/13	1700.00	170.00	12/18/13	1600.00	0.00	1/18/14		
11/19/13	1650.00	250.00	12/19/13	1500.00	50.00	1/19/14		
11/20/13	1850.00	75.00	12/20/13	1450.00	100.00	1/20/14	1200.00	250.00
11/21/13	1600.00	250.00	12/21/13			1/21/14	1200.00	250.00
11/22/13	1850.00	50.00	12/22/13			1/22/14	1250.00	250.00
11/23/13			12/23/13	1450.00	150.00	1/23/14	550.00	250.00
11/24/13			12/24/13	1450.00	150.00	1/24/14	1250.00	250.00
11/25/13	1450.00	350.00	12/25/13			1/25/14		
11/26/13	1650.00	110.00	12/26/13	1400.00	150.00	1/26/14		
11/27/13	1850.00	40.00	12/27/13	1400.00	150.00	1/27/14	1350.00	250.00
11/28/13	1600.00	80.00	12/28/13			1/28/14	1350.00	250.00
11/29/13	1800.00	50.00	12/29/13			1/29/14	1350.00	250.00
11/30/13			12/30/13	1400.00	200.00	1/30/14	1350.00	250.00
			12/31/13	1400.00	250.00	1/31/14	1350.00	250.00
AVG	1690.48	167.62	AVG	1626.19	93.81	AVG	1278.26	250.00
MIN	1450.00	40.00	MIN	1400.00	0.00	MIN	550.00	250.00
MAX	1850.00	350.00	MAX	2050.00	250.00	MAX	1400.00	250.00

Sunco Disposal #1 30-045-28653

**2013
Quarterly
Injection Report**

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maximum Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	13059140	
Jan-2013	1630	1900	1450	9	15	2	100	100	100	306	530	62	2758	13061898	
Feb-2013	1758	1950	1500	12	16	7	100	100	100	414	555	228	4554	13066452	
Mar-2013	1743	1950	1500	11	19	0	100	100	100	381	643	1	4192	13070644	
													Previous Quarter	13070644	
Apr-2013	1968	2250	1600	23	37	1	100	100	100	803	1265	36	17665	13088309	
May-2013	1950	2150	1700	12	31	2	100	100	100	407	1054	61	7725	13096034	
Jun-2013	1955	2200	1550	12	33	5	50	50	50	401	1130	162	7214	13103248	
													Previous Quarter	13103248	
Jul-2013	1765	2000	1500	9	16	2	75	160	40	299	550	83	5080	13108328	
Aug-2013	1643	1900	1500	9	22	4	122	200	55	325	764	145	4551	13112879	
Sep-2013	1676	1900	1450	11	22	1	161	220	75	362	753	33	5431	13118310	
													Previous Quarter	13118310	
Oct-2013	1702	1850	1600	11	21	5	145	320	30	361	724	159	6143	13124453	
Nov-2013	1690	1850	1450	11	24	6	168	350	40	386	807	195	5795	13130248	
Dec-2013	1626	2050	1400	19	64	3	94	250	0	646	2178	110	6459	13136707	
													Total for year	77567	13214274

UICI-5-0

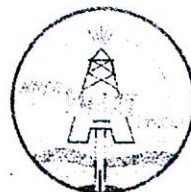
Agua Moss, LLC

Sunco Disposal #1 30-045-28653

2014
Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maximum Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)
													Previous year	13214274
Jan-2014	1278.261	1400	550	0.91875	1.079167	0.7583333	250	250	250	31.5	37	26	63	13214337
Feb-2014	1255	0	0	19.63889	33.54167	2.5083333	33.33333	50	25	673.3333	1150	86	6060	13220397
Mar-2014	1795	1900	1550	23.31146	26.04583	20.3	120	250	50	799.25	893	696	3197	13223594
													Previous Quarter	13223594
Apr-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
May-2014	#DIV/0!	2150	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
Jun-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
													Previous Quarter	13223594
Jul-14	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
Aug-14	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
Sep-14	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
													Previous Quarter	13223594
Oct-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
Nov-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
Dec-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594
											Total for year		9320	13232914

SP-2000



Downhole Memory Pressure Gauge

The SP-2000 downhole memory pressure gauge is controlled by an internal microprocessor and powerful software.

The SP-2000 can stay downhole and collect data for hours or days; depending on your application. It is slimline and operates fully from battery power.

The microprocessor is capable of detecting the correct pressure and temperature and adjust the sampling rate automatically (once programmed for the test application).

The SP-2000 is tough, dependable, simple, and intelligent. If your job requires gauges that are reliable yet rugged and simple to use, the SP-2000 memory gauge, with its Hybrid-Quartz sensor is the one for you. It is so simple that a paper clip can be used to program it by changing the switch settings for the Type and Duration of test.

With the use of our simple, menu driven software, you can retrieve and report the gauge data (using a compatible computer and printer) from the tool once it is removed from the well.

Advanced reporting features are available such as data printouts, gradient reports, gradient plots and most of the standard time vs. pressure/temperature plot formats.

Micro-Smart Systems offers complete Well Test Interpretation, utilizing Fekete's "F.A.S.T. Well Test"™ software. This powerful state-of-the-art software includes data preparation, various analysis methods, analytical reservoir modeling and deliverability.

Micro-Smart Systems is the *SMART* choice for cutting-edge technology and superior customer support. We can save you time, money, and help you keep your customers satisfied.

SMART Features:

The technological features of the SP-2000 are:

- Dual EEPROM Memory
- Tool performs internal tests and delivers audible signal to confirm operation
- Multiple-run data storage capability
- User friendly software
- Convert from memory to SRO gauge with simple module change
- Compatible with Micro-Smart's production logging tools
- Standard ASCII data storage format
- Switch selectable programming without the use of a computer
- Selectable switches for duration in **DAYS** and **TYPE of TEST**
- Custom computer programming
 - up to 15 time periods
 - specify time interval, sampling rate, and ΔP switching.



"SMART AND SIMPLE"

SPECIFICATIONS:

Memory Capacity: 48,000 data sets (main memory) 2,000 data sets (backup memory) (time, pressure, temp.)	Pressure Ranges: 2,500 psi (17,000 KPA) 5,000 psi (34,000 KPA) 10,000 psi (68,000 KPA) 15,000 psi (102,000 KPA) 20,000 psi (136,000 KPA)
Sampling Intervals: 1.875 seconds to 64 minutes (in binary multiples)	Weight: 13 lbs. (5.9 Kg)
Diameter: 1.25 inch (31.2 mm)	Operating Temp.: 32° F to 325° F 10° C to 160° C
Resolution: Pressure .01 psi Temp. .04° F	Power: 13.5v (9 "C" cell Alkaline) 14.4v (4 "C" cell Lithium)
Accuracy: Pressure $\pm .05\%$ Full Scale Temp. $\pm 1^\circ F$ Time $\pm .05\%$	Length: 53 in. (1.3 m) plus battery pack 24 in. (.6 m) for 9 cell pack 16 in. (.4 m) for 4 cell pack

Page A

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Probe Set Up Time ..... 2/10/14 10:50: 0
Time Delay to First Reading .....
Test Type Selection ..... INJECTION & FALL-OFF TESTS
Test Duration Selection ..... 125 HRS. TANDEM ELEC. MEMORY INST. TIME

```


AOR Sunco Disposal #1 updated 7/15/2013

Item 7b2													Surface Casing			INT Casing			Production Casing					
API	Well Name	Well #	Current Operator	Type	Lease	Status	Sec	TWN	RNG	UL	Spud Date	TD	size	depth	Sacks TOC	size	depth	Sacks TOC	size	depth	Sacks TOC	Perfs	Packer	PLUGGED
30-045-08851	ALLEN A	#001	BP America	Gas	Private	Active	1	29N	12W	D	3/12/1961	6785	8.265	264	200 surf				4.5	6785	300 surf	6518-6718		
30-045-26214	ALLEN A	#001E	BP America	Gas	Federal	Active	1	29N	12W	L	3/22/1985	5825	8.625	318	225 surf				5.5	6622	820 surf	6425-6602		
30-045-32346	CORNELL	#002R	Energen Resources	Gas	Federal	Active	1	29N	12W	M	7/22/2004	2152	7	137	90 surf				4.5	2151	310 surf	1702-1926		
30-045-08656	Cornell	2	Energen Resources	Gas	Federal	Plugged	1	29N	12W	M	10/2/1955	1996	8.625	97	75 surf				5.5	1950	100 surf	1711-1936		9/15/2005
30-045-08793	Pre-Ongard		Southern union	Gas	Private	Plugged	1	29N	12W	E	3/16/1948	2125												3/16/1948
30-045-32241	BECK	#001R	Burlington	Gas	Private	Active	2	29N	12W	G	12/1/2004	2225	7	135	34 surf				4.5	2221	262 surf	1774-2077		
30-045-33811	BECK	#001S	Burlington	Gas	Private	Active	2	29N	12W	D	8/17/2006	2200	7	162	85 surf				4.5	2195	255 surf	1730-1951		
30-045-31580	CORNELL COM	#500	Burlington	Gas	Federal	Active	2	29N	12W	N	7/14/2003	2136	7	139	44 surf	6.25	2126		4.5	2126	258 surf	1658-1878		
30-045-33573	CORNELL COM	#500S	Burlington	Gas	Private	Plugged	2	29N	12W	P	3/18/2006	2210	7	132	34 surf	6.25	2210		4.5	2198	279 surf	1754-1939 1743-1924		1/23/2013
30-045-08714	CORNELL SRC	#007	Burlington	Gas	Federal	Active	2	29N	12W	L	7/29/1944	2107	16	42	10 surf	5.5	1978		3.5	2106	250 surf	1976-2010		
30-045-08844	KATTLER	#001	Burlington	Gas	Private	Plugged	2	29N	12W	C	1/26/1945	2069	10	846	surf	5.5	1960		3.5	2050	205 surf	1961-2007		5/29/2012
30-045-08704	MCGRATH B	#001	Burlington	Gas	Private	Active	2	29N	12W	J	11/19/1961	6720	8.625	318	225 surf				4.5	1865	1065 surf	6489-6596		
30-045-08713	McGrath SRC	#001	Burlington	Gas	Private	Plugged	2	29n	12w	j	7/7/1973	2136	13 & 10.75	550 & 864	2 sx mud 4 sx mud	8.625	1526	5 sx mud	5.50 & 3.50	2020 2136	12 sx mud 140 surf	2020-2136 2012-2078		6/10/1998
30-045-30486	MCGRATH SRC	#001R	Burlington	Gas	Private	Plugged, Not Released	2	29N	12W	J	3/23/2001	2235	8.625	53	12 surf				2.875	2228	425 surf	2010-2157		6/25/2010
30-045-08797	Pre-Ongard		Southland	Gas	Private	Plugged	2	29n	12w	g	4/14/1948	2125												2/23/1984
30-045-28653	SUNCO DISPOSAL	#001	Agua Moss	Salt Water Disposal	Private	Active	2	29N	12W	E	1/28/1992	4760	8.625	209	150 surf				5.5	4760	1010 surf	4350-4460	4282 10/15/07	4350-4460 TA'd
30-045-08839	YOUNG	#001	Burlington	Gas	Private	Active	2	29N	12W	D	8/1/1961	6740	8.625	307	275 surf				4.5	6739	700 surf	6446-6644		
30-045-08709	MCGRATH	#003	Burlington	Gas	Private	Plugged	3	29N	12W	J	3/4/1945	2040	13.375	675	2 surf	8.625 INT 1 5.5 INT 2	1460 1928	4 surf 58 surf	3.5	2011	110 surf	1872-1912 1922-1937	1871-1876	3/1/2013
30-045-33580	MCGRATH	#003S	Burlington	Gas	Private	Active	3	29N	12W	B	7/13/2007	2132	7	218	150 surf				4.5	2112	289 surf	1692-1904		
30-045-08712	MCGRATH A	#001	Burlington	Gas	Private	Active	3	29N	12W	I	3/14/1964	6689	8.625	307	250 surf				4.5	6688	500 surf	6432-6524		
30-045-08711	Pre-Ongard		Union Texas	Gas	Private	Plugged	3	29N	12W	K	6/25/1955	1940												11/10/1964
30-045-32931	WALKER	#100S	Burlington	Gas	Private	TA'd 10/09	3	29N	12W	F	8/14/2005	2120	7	144	61 surf				4.5	2117	238 surf	1621-1885		

AOR Sunco Disposal #1 updated 7/15/2013

30-045-08823	Walker SRC	1	Burlington	Gas	Private	Plugged	3	29N	12W	G	2/25/1943	2050	16	21	20 surf	5.5	1930		3.5	2050	175 surf	1938-1974		10/12/2009
30-045-23889	BECK A	#001E	Burlington	Gas	Federal	Active	10	29N	12W	B	1/5/1981	6514	8.625	240	150 surf				4.5	6514	765 surf	6277-6454		
30-045-30381	CORNELL	#100	Burlington	Gas	Federal	Active	10	29N	12W	B	1/7/2003	1968	7	147	55 surf				4.5	1959	229 surf	1543-1704 1744 1800		
30-045-23758	Pre-Ongard		Southland	Gas	Federal	Plugged	10	29N	12W	A	12/19/1980	1870											2/10/1984	
30-045-08615	CORNELL	#006	Burlington	Gas	Federal	Active	11	29N	12W	C	11/7/1955	1839	8.625	106	70 surf	5.5	1811		3.5	2022	181 surf	1811-1839		
30-045-31581	CORNELL	#101	Burlington	Gas	Federal	Active	11	29N	12W	D	10/7/2003	2008	7	140	35 surf				4.5	2000	270 surf	1726-1764		
30-045-13092	CORNELL C	#001	BP America	Gas	Federal	Active	11	29N	12W	D	12/6/1961	6604	8.625	250	150 surf				4.5	6604	300 surf	6298-6483		
30-045-26141	DUFF GAS COM	#001E	Burlington	Gas	Federal	Active	34	30N	12W	G	11/20/1984	6608	8.625	316	295 surf				4.5	6608	1000 surf	6396-6576 04'RC to FC 1492-1870		
30-045-08950	HUDSON	2	Burlington	Gas	Federal	Plugged	34	30N	12W	P	7/17/1946	2137	15.5	38	20 surf	10 & 8.625	1217 1618	99 surf	5.5	1961	40 surf	1728-1938 1962-2008	2128	9/26/2008
30-045-08945	MCGRATH C	#001	Burlington	Gas	Federal	Plugged	34	30n	12W	p	2/7/1963	6637	8.625	323	225 surf				4.5	6637	925 surf	6367-6576		4/29/2009
30-045-08955	Pre-Ongard		Aztec O&G	Gas	Private	Plugged	34	30N	12W	N	11/1/1944	1965											10/29/1977	
30-045-25923	McGrath	#004	Burlington	SWD	Federal	Plugged	34	30N	12W	B	9/4/1984	4700	8.625	231	230	5.5	4698	460	3.5	4198		4272-4374	4238-4197	7/25/2013
30-045-08946	CARNAHAN COM	#001	Holcomb Oil & Gas	Gas	Private	Active	35	30N	12W	P	12/19/1960	6778	8.625	301	200 surf				4.5	6760	445 surf	6521-6708 94 RC to FC 1824-2037		
30-045-25844	CARNAHAN COM	#002	Merrion Oil & Gas	Gas	Private	Active	35	30N	12W	P	6/15/1984	6780	8.625	230	170 surf				4.5	6777	1425 surf	6529-6714		
30-045-11770	HUDSON J	#003	Burlington	Gas	Federal	Active	35	30N	12W	E	7/22/1966	6750	8.625	306	250 surf				4.5	6750	750 surf	6460-6680 01' RC to FC 1784-1994		
30-045-20140	Pre-Ongard		Southland	Gas	Federal	Plugged	35	30N	12W	L	9/7/1967	DH											6/9/1982	
30-045-28177	FC STATE COM	#024	Burlington	Gas	State	Active	36	30N	12W	M	10/9/1990	6608	8.625	316	250 surf				4.5	6609	6000 surf	1492-1870		DK ZA 9/2002 6396-6576

AOR Statement:

All tracts within the AOR were reviewed for activity that had ensued since the 2012 report was submitted in 2013. Since the last report one well was plugged and abandoned. P&A report is attached.

RECEIVED

Form 3160-5
(August 2007)

AUG 22 2013

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office
Bureau of Land Management

NOTICE AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

5. Lease Serial No.

SF-077922

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

☐ Oil Well

☒ Gas Well

☐ Other

2. Name of Operator

Burlington Resources Oil & Gas Company LP

3a. Address

PO Box 4289, Farmington, NM 87499

3b. Phone No. (include area code)

(505) 326-9700

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface

Unit B (NWNE), 800' FNL & 1730' FEL, Sec.34, T30N, R12W

8. Well Name and No.

McGrath SWD 4

9. API Well No.

30-045-25923

10. Field and Pool or Exploratory Area

Mesaverde SWD

11. Country or Parish, State

San Juan

New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☒ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☐ Other

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof.

If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

7/12/13 The 4197' packer in procedure is not holding, asked permission to pump plug from 4374' to end of tbg @ 4213'.

Called Steve Masonw/ BLM & Charlie Perrin w/ OCD. Both gave verbal approval.

7/16/13 The packer in hole was supposed to shut off water, asked approval to shoot tbg off @ 3896' & set 150' plug on top of it.

Called Steve Masonw/ BLM & Charlie Perrin w/ OCD. Both gave verbal approval.

7/19/13 Plug 4&5 need to be combined as there is only 120' between them. Bill Diers on site w/ BLM, Called Brandon Powell w/ Ocd and got verbal approval.

7/19/2013 2nd call. Surface perfs @ 281' PT to 1000#-OK. Tied onto Bradenhead & pumped 5 bbl's water down (145') PT to 500# and test was good. Bill Diers on site w/ BLM wants to perf @ 125', run in tbg and circ to surface inside and in annulus. Called Brando Powell w/ OCD & got verbal approval.

The subject well was P&A'd on 7/25/13 per the above notifications and the attached reports.

RCVD AUG 26 '13
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Kenny Davis

Title Staff Regulatory Technician

Signature

Date

8/22/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instruction on page 2)

NMOCD

RESERVED FOR RECORD

AUG 22 2013

FARMINGTON FIELD OFFICE

2/16

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Burlington Resources
McGrath SWD 4

July 22, 2013
Page 1 of 2

800' FNL and 1730' FEL, Section 34, T-30-N, R-12-W
San Juan County, NM
Lease Number: SF-077922
API #30-045-25923

Plug and Abandonment Report Notified NMOCD and BLM on 7/8/13

Plug and Abandonment Summary:

- Plug #1** with 40 sxs (47.2 cf) Class B cement inside casing to 4212'. Tag TOC at 3896'.
- Plug #2** with 17 sxs (20.06 cf) Class B cement with 2% CaCl inside casing from 3893' to 3743' disp with 13.8# mud to cover the Mesaverde top.
- Plug #2a** with 23 sxs (27.14 cf) Class B cement inside casing from 3893' to 3690' disp with 13.8# mud to cover the Mesaverde top.
- Plug #2b** with CR at 3485' spot 88 sxs (103.84 cf) Class B cement inside casing with 59 sxs in annulus, 6 sxs below CR, 23 sxs above CR TOC at 3282' to cover the Mesaverde top.
- Plug #3** with CR at 2594' spot 48 sxs (56.64 cf) Class B cement inside casing from 2644' to 2489', 30 sxs in annulus, 6 sxs below CR, 12 sxs above CR TOC at 2489' to cover the Chacra top.
- Plug #4 (original plug #3 and plugs 4&5 combined)** with 49 sxs (57.82 cf) Class B cement inside casing from 1940' to 1508' to cover the Pictured Cliffs, Fruitland Coal tops.
- Plug #6** with 36 sxs (42.48 cf) Class B cement inside casing from 628' to 311' to cover the Kirtland and Ojo Alamo tops.
- Plug #7** with 37 sxs (43.66 cf) Class B cement inside casing from 281' to surface to cover the surface casing shoe.
- Plug #8** with 30 sxs Class B cement top off casings and install P&A marker.

Plugging Work Details:

- 7/10/13 Rode rig equipment to location. Spot in. Bump test H2S equipment. Check well pressures: tubing 600 PSI, casing 160 PSI and bradenhead TSTM. RU relief lines and blow well down. ND wellhead. NU BOP and noticed tubing started blowing. Shut in tubing. Pressured up to 1000 PSI. Attempt to blow well down. Wait on Phoenix. RU Phoenix and retrieve plug in tubing. RIH and set another plug at 4212'. Pressure still at 1000 PSI. Wait on orders. RIH and retrieve plug at 4212'. RIH and set another plug on/off tool at 4198'. Pressure still the same. SI well. SDFD. Note: Procedure change approved BLM/ NMOCD.
- 7/11/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. RU relief lines attempt to blow well down. SI well and wait on orders. RU Phoenix and RIH retrieve plug. Pump 80 bbls of water establish a rate of 2 bpm at 1200 PSI, SI tubing. Wait on acid. RU Baker Petrolite. Pump 500 gals acid with 1 bbl flush. RU pump to tubing and pump 24 bbls to spot acid at 2800'. SI tubing. Wait 30 minutes and pump 2 bbls to 3130'. SI well. SDFD.
- 7/12/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. Pump 10 bbls flush acid past packer and SI well. RU Phoenix. RIH and set plug at 4212' below packer. POH. Open tubing still flowing. SI pressure at 1040 PSI. Note: Procedure change approved BLM/NMOCD. Spot plug #1a with estimated TOC at 4212'. SI well. SDFD.

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979

Farmington, New Mexico 87499

505-325-2627 *fax: 505-325-1211

Burlington Resources

McGrath SWD 4

July 22, 2013

Page 2 of 2

Plugging Work Details (continued):

- 7/15/13 Bump test H2S equipment. Check well pressures: tubing 420 PSI, casing and bradenhead 0 PSI. RU relief lines tubing blew right down. SI for an hour and 0 PSI. Start mixing gel to VISC at 13.8#. Check pressure on tubing 0 PSI. Attempt to release off packer at 4196' unable to release. Wait on orders to jet cut tubing. SI well. SDFD.
- 7/16/13 Bump test H2S equipment. Open up well; no pressures. RU relief lines. RU Wireline Specialties. Tag TOC at 3896'. Note: Procedure change approved BLM/ NMOCD. RIH and cut tubing at 3893'. Pull tubing hanger. Establish circulation. Pump 60 bbls 13.8# mud. SI casing attempt to pressure test pump 4 bbls no pressure, pulled 1 joint discover need slip grip elevators. Wait on elevators. Regulator broken. SI well. SDFD.
- 7/17/13 Bump test H2S equipment. Open up well; no pressures. Establish circulation. Spot plug #1 with estimated TOC at 3743'. LD 1 joint, 2-6' subs, 2-4' sub, LD 118 joints (119 joints total) EUE 9.3# 3-1/2" at 3893'. Tally 124 joints 2-3/8" tubing, EUE 4.7#, A-Plus tubing. Tag top of 3.5" cut at 3893'. Establish circulation. SI casing attempt to pressure test to 820 PSI bled down to 780 PSI. Spot plug #1a with estimated TOC at 3690'. SI well. SDFD.
- 7/18/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 3781'. RIH with 5.5" GR to 1362' unable to get down. Perforate 3 HSC squeeze holes at 3535'. Attempt to get rate, pumped 35 bbls 13.8# mud, no pressure. TIH with 5.5" string mill to 3507'. TIH with 5.5" DHS CR and set at 3485'. Pressure test tubing to 1000 PSI. Reverse circulate with 96 bbls till clean returns. Establish rate of 1.5 bpm at 900 PSI. Pressure test casing to 800 PSI, OK. Spot plug #2 with estimated TOC at 3282'. Reverse circulate from 3254' to 2644'. SI well. SDFD.
- 7/19/13 Bump test H2S equipment. Open up well; no pressures. Perforate 3 HSC squeeze holes at 2644'. Establish rate of 1 bpm at 1100 PSI. TIH with 5.5" DHS CR and set at 2594'. Establish circulation. Spot plug #3 with estimated TOC at 2489'. Reverse circulate 11 bbls from 2470' to 1960'. Establish circulation. Note: Procedure change approved BLM/NMOCD. Spot plug #4 (combined 4&5) with estimated TOC at 1508'. Reverse circulate with 8 bbls from 1471' to 620'. Spot plug #6 with estimated TOC at 311'. Perforate 3 HSC squeeze holes at 281'. Attempt to get circulation pressured up to 1000 PSI. Bradenhead pressured to 500 PSI. Note: Procedure change approved BLM/ NMOCD. Perforate 3 HSC squeeze holes at 125'. Establish circulation. Spot plug #7 with estimated TOC at surface. SI well. SDFD.
- 7/22/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 8'. ND BOP and dig out wellhead. RU High Desert. Cut off wellhead. Top off casings. Spot plug #6 and install P&A marker. RD and MOL.

Jim Morris, MVCI representative, was on location.

Bill Diers, BLM representative, was on location.

 *
 * EVENT SUMMARY *
 *

COMPANY : MERRION OIL AND GAS

PAGE : B1

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Key Event	Pressure	Temp
MM/DD	hh:mm:ss	mmmmmm.mmmmm		Psig	Deg F
02/10	11:00:00	10.0000	PRESSURED UP LUBRICATOR	1155.33	63.63
02/10	11:06:00	16.0000	SURFACE STOP	1173.12	59.30
02/10	11:16:00	26.0000	STOP @ 1000'	1619.74	66.57
02/10	11:26:00	36.0000	STOP @ 2000'	2060.16	86.75
02/10	11:36:00	46.0000	STOP @ 3000'	2498.36	106.04
02/10	11:46:15	56.2500	STOP @ 4000'	2944.10	121.75
02/10	11:50:15	60.2500	TANDEM ELEC. MEMORY INST. @ 4405'	3105.52	115.43
02/12	14:12:00	3082.0000	STOPPED INJECTING	3507.25	86.82
02/12	14:27:00	3097.0000	WELL SHUT IN FOR FALL-OFF	3496.22	87.15
02/12	14:42:00	3112.0000	BEGAN FALL-OFF	3487.49	87.58
02/15	14:27:00	7417.0000	TANDEM ELEC. MEMORY INST. OFF BOTTOM	3226.56	91.53
02/15	14:38:15	7428.2500	STOP @ 4000'	3045.47	118.35
02/15	14:48:00	7438.0000	STOP @ 3000'	2609.30	107.69
02/15	14:58:15	7448.2500	STOP @ 2000'	2172.31	90.25
02/15	15:08:00	7458.0000	STOP @ 1000'	1734.52	69.62
02/15	15:19:00	7469.0000	SURFACE STOP	1284.64	71.90



March 25, 2014

Sunco Saltwater Disposal Well #1
UIC Permit # UICI-5-0
Section 2 T29N R12W API 30-045-28653
San Juan County, NM
Falloff Test Analysis

To whom it may concern:

This report summarizes the analysis of an injection falloff test on the Sunco SWD conducted in March of 2014.

Procedure

Tandem electronic gauges were run in the subject well. The initial BHP was 3105 psi at a depth of 4405'. A total of 1537 Bbls of water was injected over 50 hours at an average injection rate of 739 BWPD. Final bottom hole injection pressure was 3520 psi. Injection was then shut in, and the bottom hole pressure was monitored for another 50 hours. Final BHP was 3226 psi at the end of the test.

Analysis Results

1. $P^* = 3135$ psi
2. $K = 3.36$ md
3. $S = -4.1$
4. Radius of investigation = 386'
5. No boundary seen during test

Please call if you require more information or if you have any questions.

Sincerely,

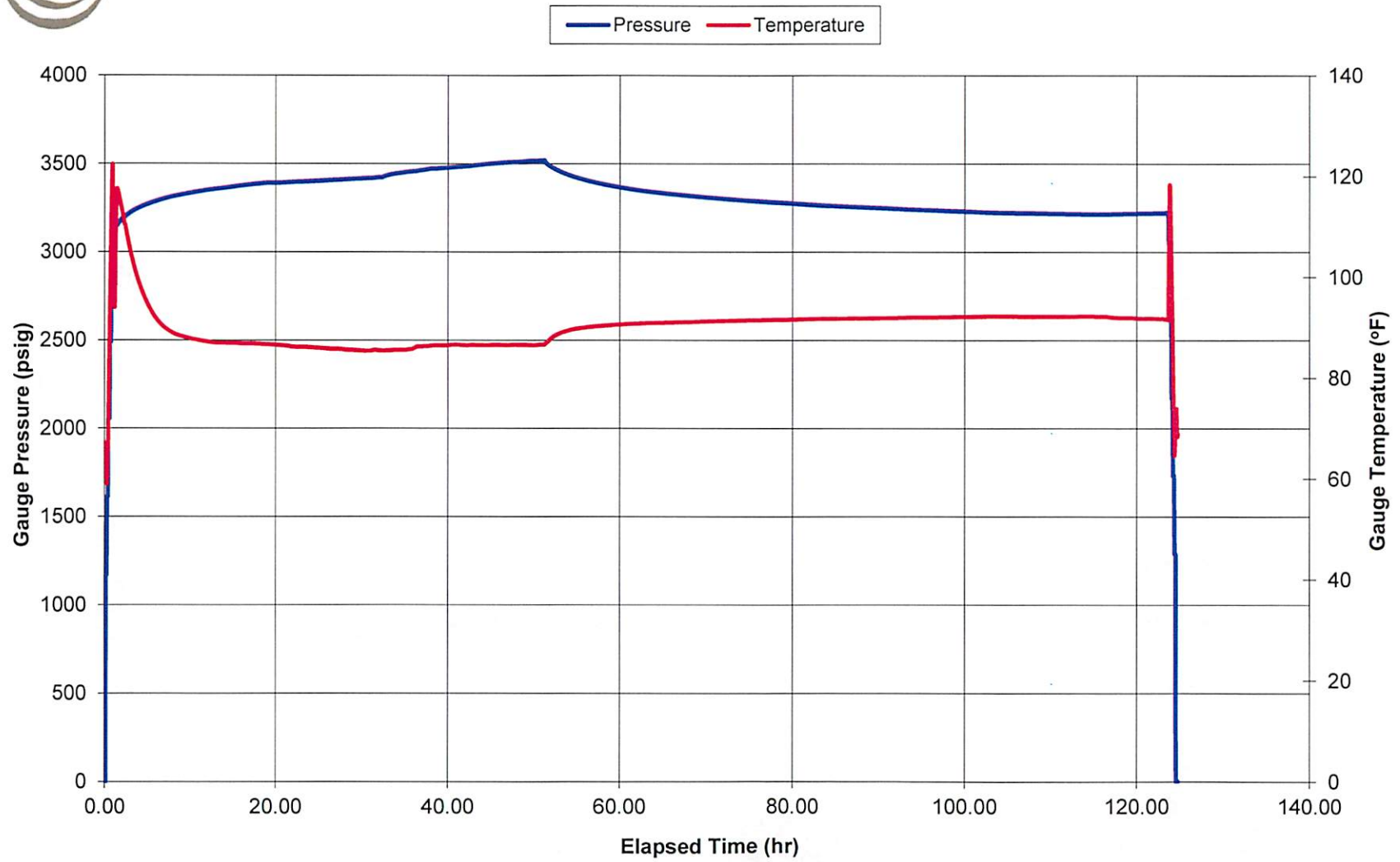
A handwritten signature in cursive script that reads "George Sharpe".

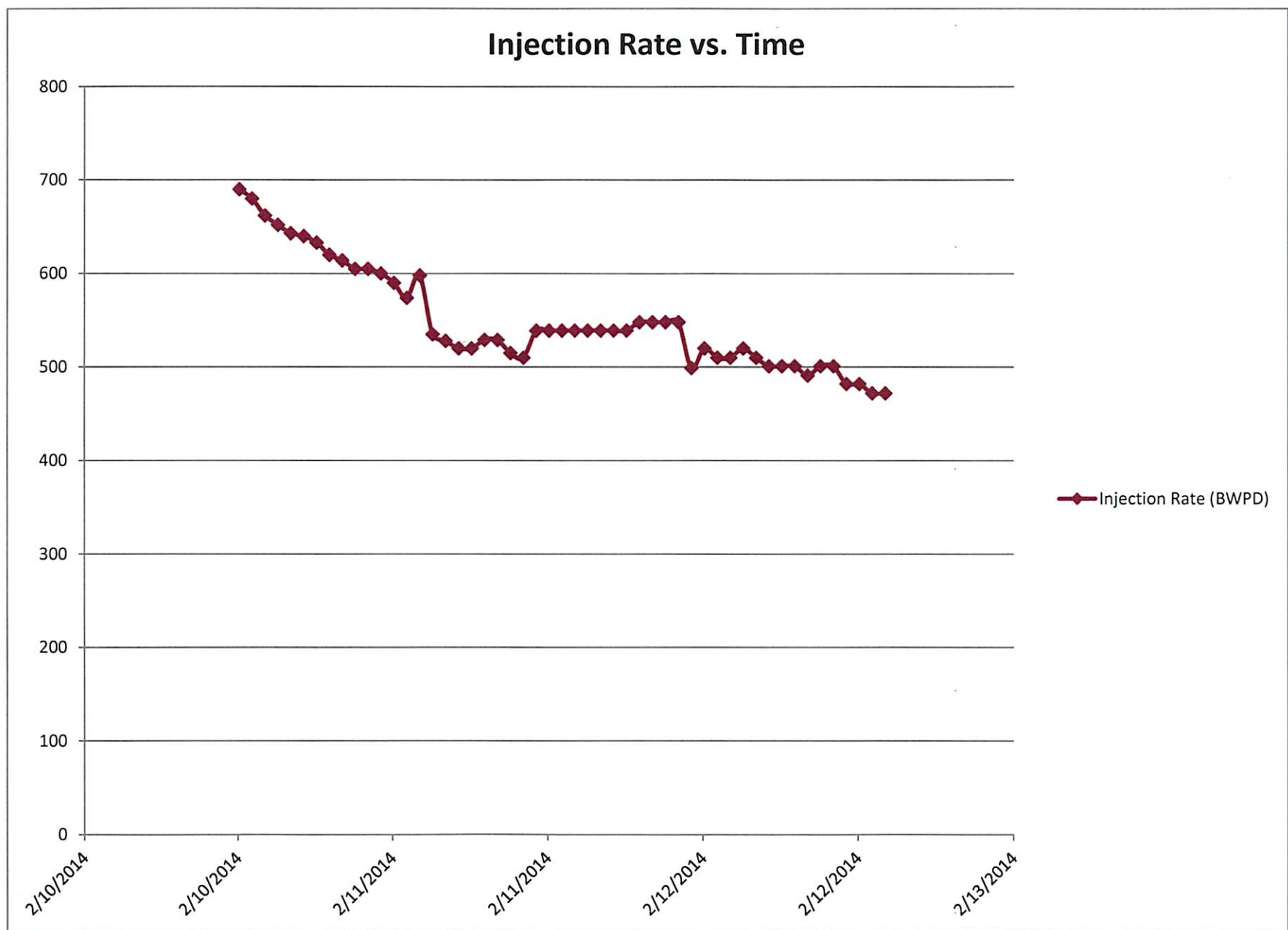
George Sharpe
Manager, Oil & Gas Investments
505-324-5314
gsharpe@merrion.bz

Falloff Test Calculations					BHP	3,520
Lease Name	Sunco SWD					
Field Name	Mesaverde					
Test Date	02/10/14					
Cum Injection	1,539	BBlls				
Injection Period	50	hours				
Ave Inj Rate	739	BWD	Cum Inj	1.54E+03	Bbl	
Water specific gravity	1.00		Rate	739	Bbl/day	
			Inj Time	50	hrs	Average pres 3,328 psi
			Water vis	1.0000	cp	Drainage radius 2,980 ft
			Bw	1.00000	RB/ surf bbl	
Reservoir temp	173	°F				
Acres	640				Compressibility water	3.00E-06
I. Calculation of kh (md-ft) and k (md)					Compress formation	3.65E-06
Slope (psi/cycle)	325	(1)			System Comp.	0.000007
Pwf	3,520	psi	KH	369.587	md-ft	
Pressure star (	3,135	psi	Kw	3.360	md	
Net thickness	110	ft	KH/u	370		
II. Calculation of Skin Effect and Pressure Loss Due to Skin						
Porosity	0.200	frac				
Well bore radius	0.33	ft	Skin	-4.123		
P one hour	3,700	(2)	Pseudo skin	(1,166)	psi	
Water saturation	1.00	frac	Flow Efficiency	403%	(Pwf-Dpskin - Pstatic)/(Pwf-Pstatic)	
Injection Time	50					
Time to Reach Radial	0.003	hr	(200000+12000*S)*Ct/(kh/u)			
Radius of Investigation	326	ft	0.029*(kt/Por*u*Ct)^.5			
Shut In Time	70					
Time to Reach Radial	0.001717	hr	170000*Ct*exp^(.14*S)/(kh/u)			
Radius of Investigation	386	ft	0.029*(kt/Por*u*Ct)^.5			
Radial flow reached in less than one hour. Horner straight line starts 9 hours						
Homogeneous Reservoir - no boundary seen during test or change in flow properties						

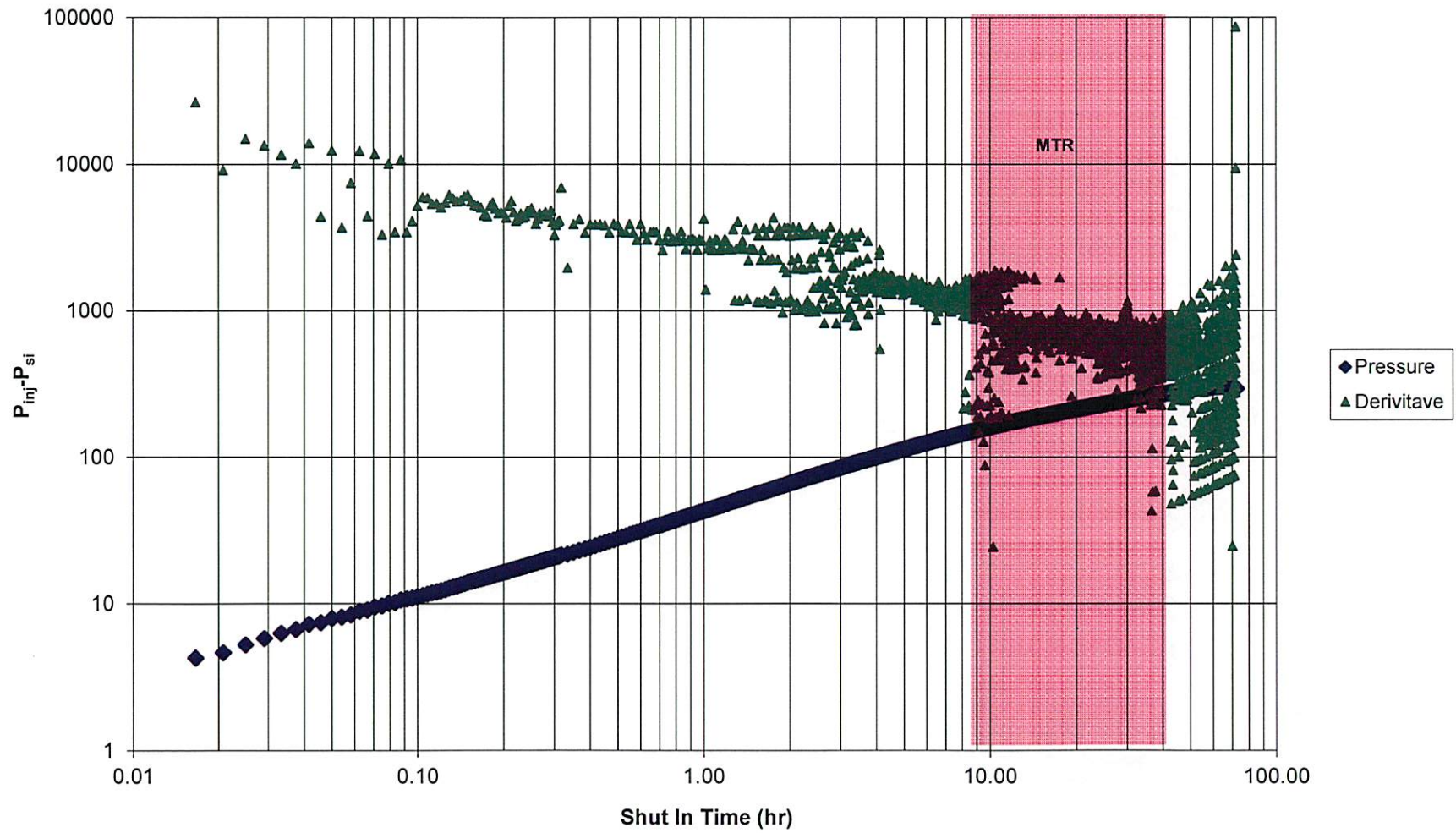


Sunco SWD #1 Falloff - February 2014



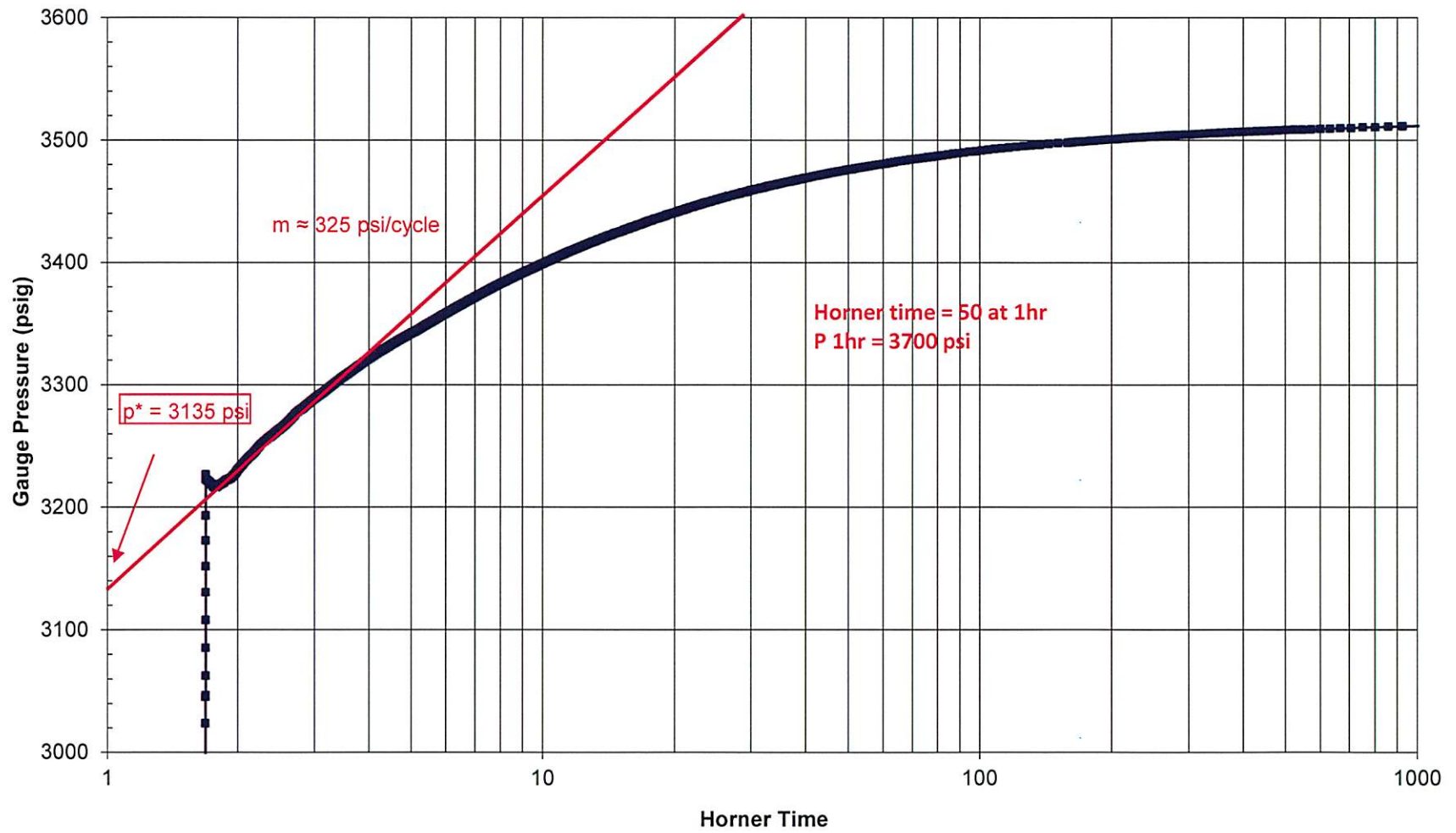


Sunco SWD Derivative Plot

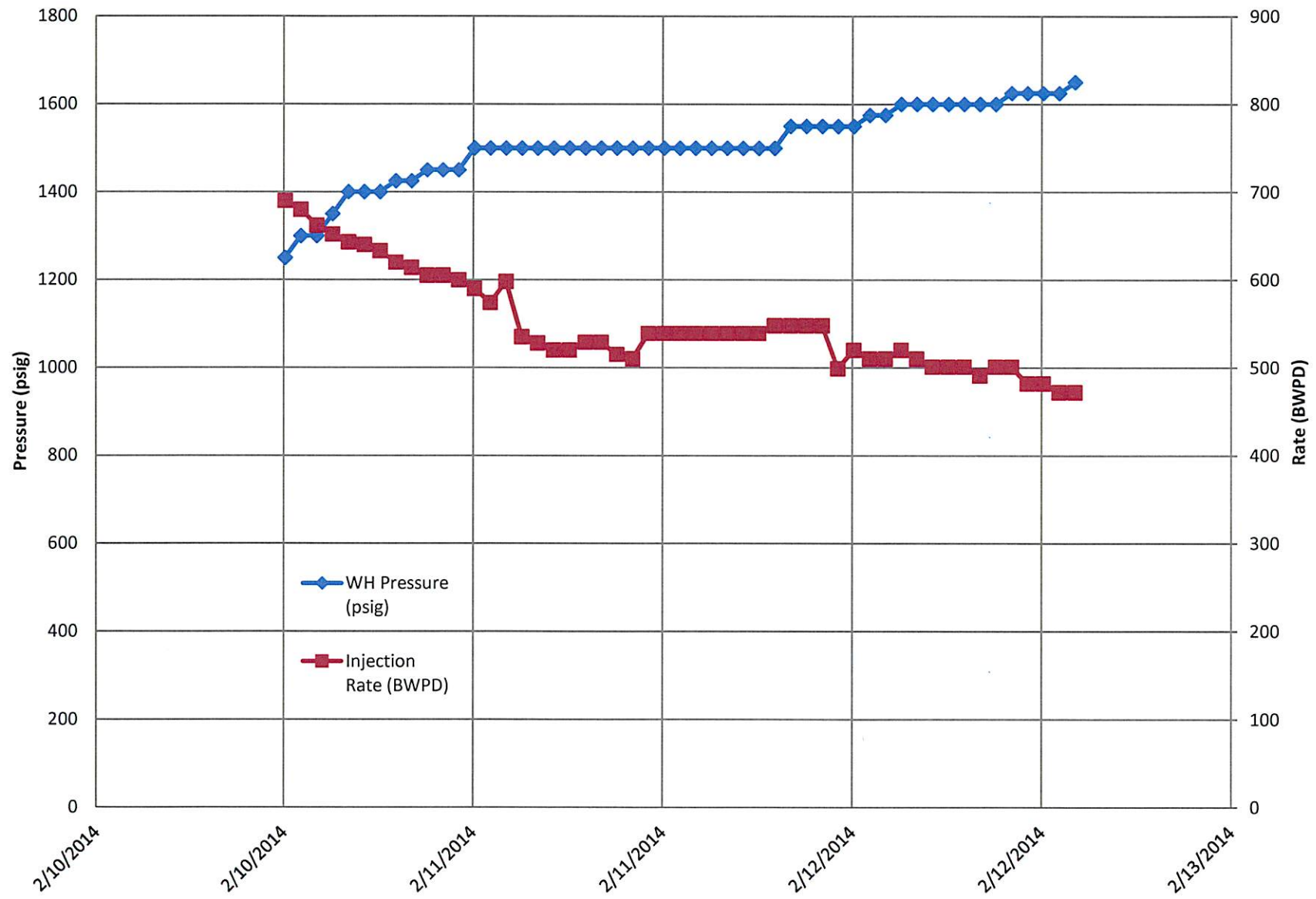




Sunco Disposal Well Horner Plot



Surface Pressure and Rate

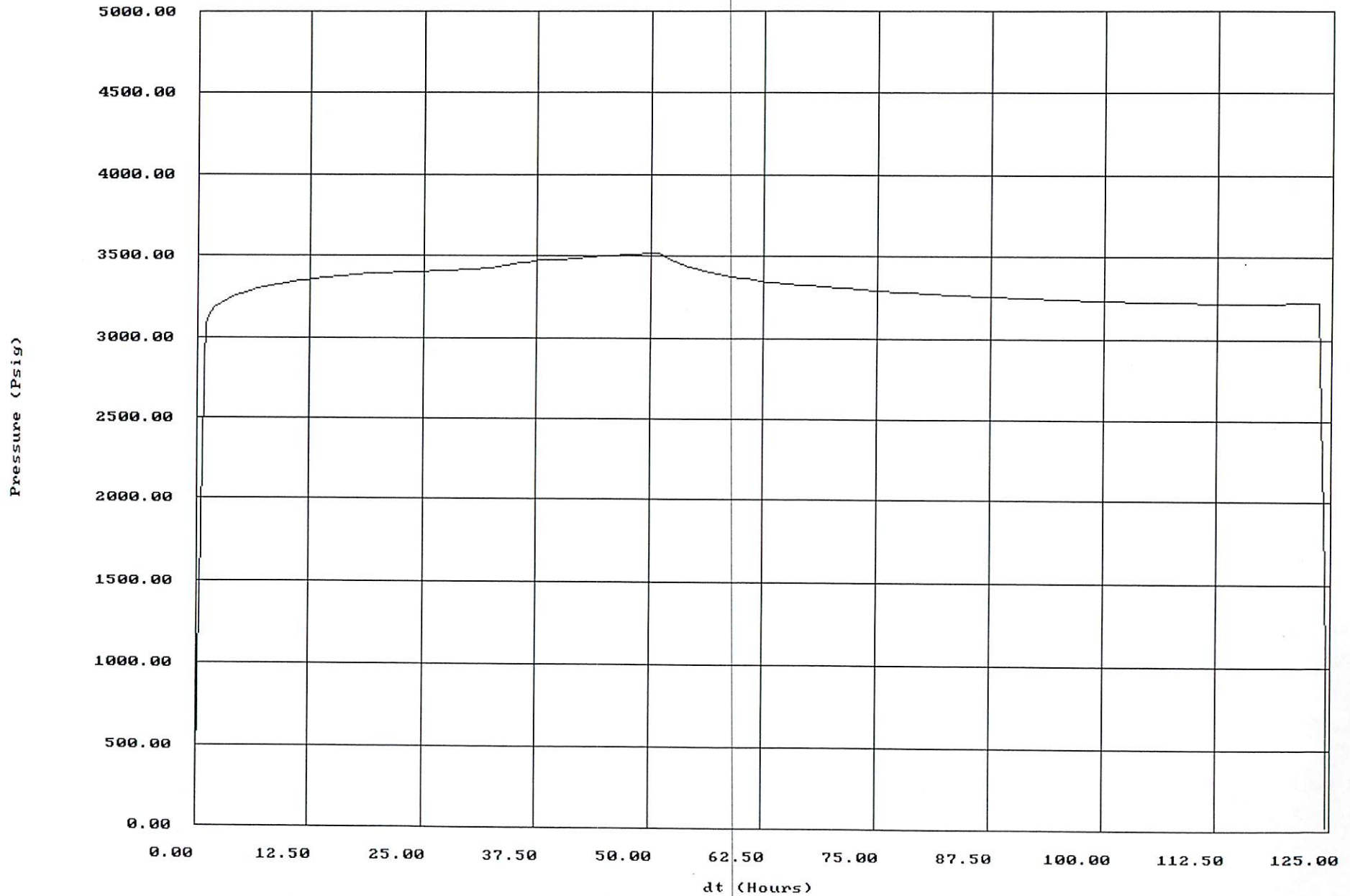


MERRION OIL AND GAS

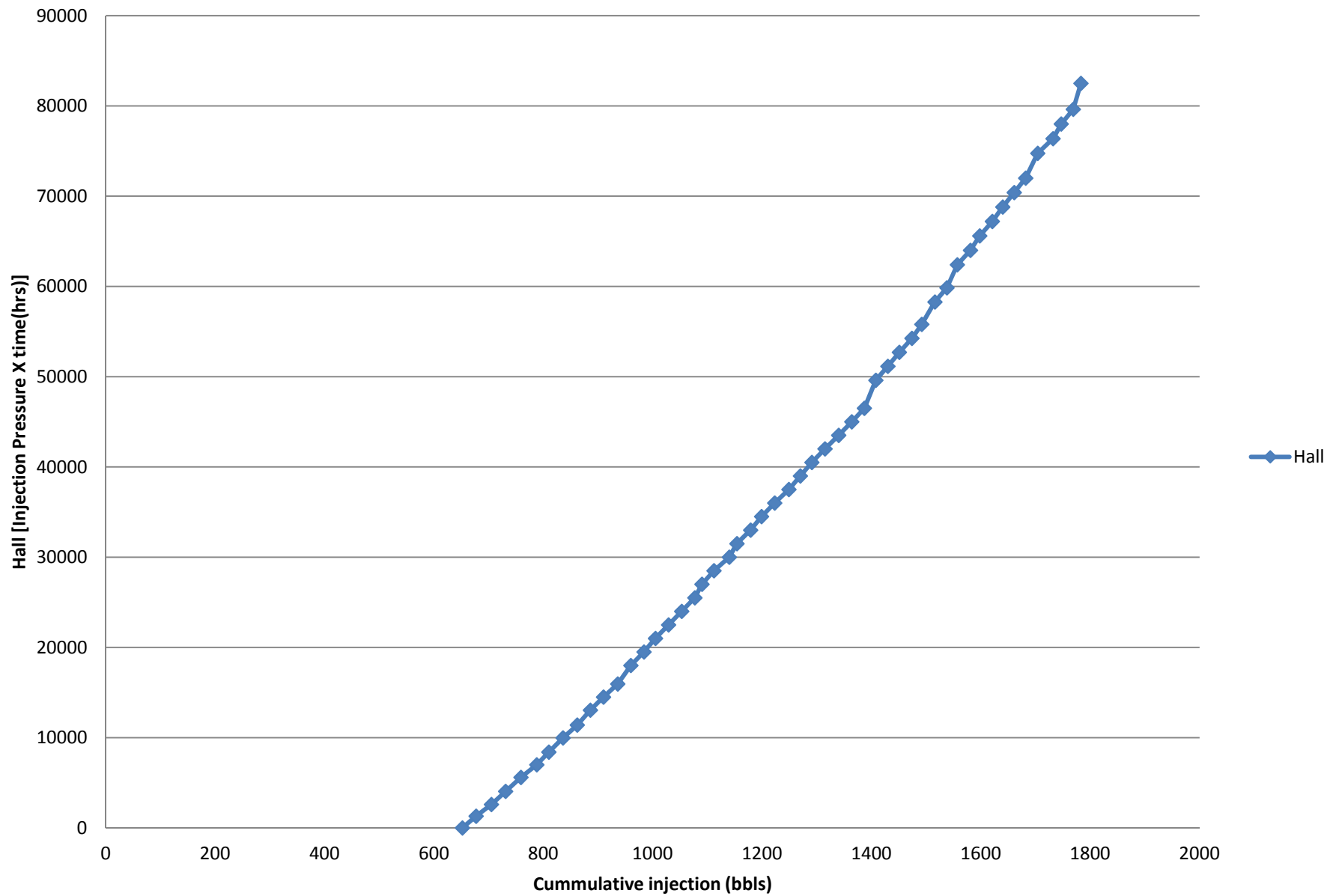
Pressure vs dt

SUNCO SWD NO. 1
SAN JUAN COUNTY, NM
F240217.RED

TEFTELLER, INC.
2-10-14
INJECTION & FALL-OFF TESTS



Hall Plot



Data Comparison:

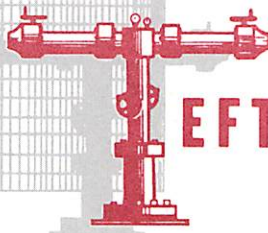
Due to the lack of data from previous falloff tests we were not able to compare all of parameters to the current results:

Table 1: 2014 to 2010 Result Comparison

Parameter	2014	2010
Reservoir Pressure	3135 psi	3231 psi
Permeability	3.36 md	13.6 md
Transmissibility (kh/ μ)	370	-
Skin	-4.1	-7.18
Boundary	None seen	648 ft, 1520 ft
Radius fo investigation	386 ft	1450 ft

Data:

The raw test data obtain during the 2014 falloff test and used for the analysis will be kept on file for a period of three (3) years and will be available upon request.



BHP • BU • PI • DD • GWT • RFS • GOR • FL • TS

EFTELLER, INC.

reservoir engineering

FARMINGTON, NEW MEXICO/
GRAND JUNCTION, COLORADO

P. O. Box 1198
Farmington, New Mexico 87499
(505) 325-1731
Fax (505) 325-1148

2332 Interstate Ave.
Grand Junction, CO 81505
(970) 241-0403
Fax (970) 241-7634

MERRION OIL AND GAS

SUNCO SWD NO. 1

FEBRUARY 10 – 15, 2014

Serving the Rocky Mountains and the Western Slope

EB

Page A

Well Name	SUNCO SWD NO. 1
Well Location	SAN JUAN COUNTY, NM
Field / Pool	
Status (Oil, Gas, Other)	SALT WATER DISPOSAL

Gauge Identification

Gauge Setup Parameters

```
Probe Set Up Time ..... 2/10/14 10:50: 0
Time Delay to First Reading ....
Test Type Selection ..... INJECTION & FALL-OFF TESTS
Test Duration Selection ..... 125 HRS. TANDEM ELEC. MEMORY INST. TIME
```

 *
 * E V E N T S U M M A R Y *
 *

COMPANY : MERRION OIL AND GAS

PAGE : B1

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Key Event	Pressure	Temp
MM/DD	hh:mm:ss	mmmmmm.mmmmm		Psig	Deg F
02/10	11:00:00	10.0000	PRESSURED UP LUBRICATOR	1155.33	63.63
02/10	11:06:00	16.0000	SURFACE STOP	1173.12	59.30
02/10	11:16:00	26.0000	STOP @ 1000'	1619.74	66.57
02/10	11:26:00	36.0000	STOP @ 2000'	2060.16	86.75
02/10	11:36:00	46.0000	STOP @ 3000'	2498.36	106.04
02/10	11:46:15	56.2500	STOP @ 4000'	2944.10	121.75
02/10	11:50:15	60.2500	TANDEM ELEC. MEMORY INST. @ 4405'	3105.52	115.43
02/12	14:12:00	3082.0000	STOPPED INJECTING	3507.25	86.82
02/12	14:27:00	3097.0000	WELL SHUT IN FOR FALL-OFF	3496.22	87.15
02/12	14:42:00	3112.0000	BEGAN FALL-OFF	3487.49	87.58
02/15	14:27:00	7417.0000	TANDEM ELEC. MEMORY INST. OFF BOTTOM	3226.56	91.53
02/15	14:38:15	7428.2500	STOP @ 4000'	3045.47	118.35
02/15	14:48:00	7438.0000	STOP @ 3000'	2609.30	107.69
02/15	14:58:15	7448.2500	STOP @ 2000'	2172.31	90.25
02/15	15:08:00	7458.0000	STOP @ 1000'	1734.52	69.62
02/15	15:19:00	7469.0000	SURFACE STOP	1284.64	71.90

COMPANY: MERRION OIL AND GAS

PAGE 1 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/10	10:50:00	.0000	.01	67.04		
02/10	10:58:00	8.0000	.01	63.82	.00	
02/10	10:59:00	9.0000	.01	63.55	.00	
02/10	11:00:00	10.0000	1155.33	63.63	1155.32	PRESSURED UP LUBRICATOR
02/10	11:03:45	13.7500	1168.16	60.60	12.82	
02/10	11:06:00	16.0000	1173.12	59.30	4.96	SURFACE STOP
02/10	11:06:15	16.2500	1195.28	59.23	22.16	
02/10	11:06:30	16.5000	1231.11	59.20	35.83	
02/10	11:06:45	16.7500	1269.09	59.18	37.98	
02/10	11:07:00	17.0000	1306.40	59.16	37.31	
02/10	11:07:15	17.2500	1353.51	59.14	47.11	
02/10	11:07:30	17.5000	1386.12	59.12	32.62	
02/10	11:07:45	17.7500	1424.78	59.10	38.66	
02/10	11:08:00	18.0000	1464.78	59.08	40.00	
02/10	11:08:15	18.2500	1508.54	59.05	43.76	
02/10	11:08:30	18.5000	1553.37	59.03	44.83	
02/10	11:08:45	18.7500	1585.86	59.01	32.49	
02/10	11:09:00	19.0000	1601.30	58.99	15.44	
02/10	11:09:15	19.2500	1611.44	59.23	10.14	
02/10	11:11:15	21.2500	1613.09	62.28	1.66	
02/10	11:14:15	24.2500	1613.07	65.37	-.02	
02/10	11:16:00	26.0000	1619.74	66.57	6.66	STOP @ 1000'
02/10	11:16:15	26.2500	1659.01	66.72	39.27	
02/10	11:16:30	26.5000	1695.87	66.87	36.86	
02/10	11:16:45	26.7500	1729.37	67.04	33.50	
02/10	11:17:00	27.0000	1763.28	67.19	33.90	
02/10	11:17:15	27.2500	1806.58	67.34	43.30	
02/10	11:17:30	27.5000	1849.21	67.50	42.63	
02/10	11:17:45	27.7500	1893.85	67.65	44.64	
02/10	11:18:00	28.0000	1933.80	67.80	39.95	
02/10	11:18:15	28.2500	1974.34	68.21	40.54	
02/10	11:18:30	28.5000	2006.16	69.06	31.82	
02/10	11:18:45	28.7500	2044.15	69.90	37.99	
02/10	11:19:45	29.7500	2053.70	73.25	9.55	
02/10	11:20:45	30.7500	2053.71	76.62	.00	
02/10	11:22:00	32.0000	2053.55	80.05	-.15	
02/10	11:23:30	33.5000	2053.31	83.52	-.24	
02/10	11:26:00	36.0000	2060.16	86.75	6.85	STOP @ 2000'
02/10	11:26:15	36.2500	2099.09	86.96	38.94	
02/10	11:26:30	36.5000	2141.97	87.37	42.88	
02/10	11:26:45	36.7500	2172.79	87.78	30.81	
02/10	11:27:00	37.0000	2206.42	88.19	33.63	
02/10	11:27:15	37.2500	2243.93	88.60	37.51	
02/10	11:27:30	37.5000	2280.64	89.01	36.71	
02/10	11:27:45	37.7500	2318.56	89.41	37.92	
02/10	11:28:00	38.0000	2362.65	89.82	44.08	
02/10	11:28:15	38.2500	2419.07	90.23	56.42	
02/10	11:28:30	38.5000	2465.57	90.64	46.50	
02/10	11:28:45	38.7500	2484.17	91.05	18.60	
02/10	11:30:00	40.0000	2492.62	94.66	8.45	
02/10	11:31:00	41.0000	2492.04	97.84	-.59	
02/10	11:32:00	42.0000	2491.84	101.02	-.20	
02/10	11:34:15	44.2500	2491.54	104.23	-.30	
02/10	11:36:00	46.0000	2498.36	106.04	6.81	STOP @ 3000'
02/10	11:36:15	46.2500	2545.42	106.24	47.06	
02/10	11:36:30	46.5000	2589.53	106.45	44.11	
02/10	11:36:45	46.7500	2630.83	106.65	41.30	
02/10	11:37:00	47.0000	2669.46	106.86	38.63	
02/10	11:37:15	47.2500	2705.26	107.07	35.81	
02/10	11:37:30	47.5000	2738.93	107.28	33.66	
02/10	11:37:45	47.7500	2775.81	107.48	36.89	
02/10	11:38:00	48.0000	2808.55	107.68	32.73	
02/10	11:38:15	48.2500	2838.10	108.07	29.55	
02/10	11:38:30	48.5000	2863.10	108.69	25.01	
02/10	11:38:45	48.7500	2890.92	109.31	27.82	

COMPANY: MERRION OIL AND GAS

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WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/10	11:39:00	49.0000	2917.00	109.92	26.08	
02/10	11:40:15	50.2500	2929.53	113.01	12.53	
02/10	11:41:45	51.7500	2929.50	116.37	-.03	
02/10	11:43:45	53.7500	2929.26	119.78	-.24	
02/10	11:46:15	56.2500	2944.10	121.75	14.84	STOP @ 4000'
02/10	11:46:30	56.5000	2961.41	121.91	17.31	
02/10	11:46:45	56.7500	2984.22	122.07	22.80	
02/10	11:47:00	57.0000	2996.31	122.23	12.09	
02/10	11:47:15	57.2500	3011.49	122.37	15.18	
02/10	11:47:30	57.5000	3029.05	121.88	17.56	
02/10	11:47:45	57.7500	3044.47	121.37	15.42	
02/10	11:48:00	58.0000	3067.25	120.88	22.78	
02/10	11:48:15	58.2500	3081.33	120.38	14.08	
02/10	11:48:30	58.5000	3091.13	119.88	9.80	
02/10	11:50:15	60.2500	3105.52	115.43	14.39	TANDEM ELEC. MEMORY INST. @ 4405'
02/10	11:51:00	61.0000	3105.32	111.96	-.20	
02/10	11:51:45	61.7500	3105.50	108.50	.17	
02/10	11:52:30	62.5000	3105.88	105.04	.39	
02/10	11:53:15	63.2500	3106.42	102.02	.53	
02/10	11:55:00	65.0000	3110.98	98.76	4.57	
02/10	11:57:45	67.7500	3112.87	95.60	1.88	
02/10	12:05:00	75.0000	3130.16	95.35	17.30	
02/10	12:05:15	75.2500	3130.90	95.77	.74	
02/10	12:06:15	76.2500	3133.00	99.06	2.10	
02/10	12:07:15	77.2500	3135.39	102.35	2.38	
02/10	12:08:15	78.2500	3137.21	105.73	1.82	
02/10	12:09:30	79.5000	3139.69	109.17	2.48	
02/10	12:10:45	80.7500	3141.53	112.61	1.84	
02/10	12:13:15	83.2500	3145.59	115.83	4.06	
02/10	12:26:30	96.5000	3162.93	116.96	17.34	
02/10	12:26:45	96.7500	3163.30	116.93	.37	
02/10	12:41:45	111.7500	3178.94	115.02	15.64	
02/10	12:56:45	126.7500	3191.78	112.95	12.84	
02/10	13:11:45	141.7500	3199.17	110.55	7.40	
02/10	13:27:00	157.0000	3210.64	108.77	11.47	
02/10	13:42:00	172.0000	3219.85	106.66	9.21	
02/10	13:57:00	187.0000	3227.86	104.76	8.01	
02/10	14:12:00	202.0000	3235.50	103.02	7.64	
02/10	14:27:00	217.0000	3242.28	101.40	6.78	
02/10	14:42:00	232.0000	3248.41	99.96	6.13	
02/10	14:57:00	247.0000	3254.22	98.66	5.82	
02/10	15:12:00	262.0000	3259.55	97.49	5.33	
02/10	15:27:00	277.0000	3264.67	96.41	5.12	
02/10	15:42:00	292.0000	3269.37	95.41	4.70	
02/10	15:57:00	307.0000	3273.98	94.51	4.61	
02/10	16:12:00	322.0000	3278.66	93.68	4.68	
02/10	16:27:00	337.0000	3283.02	92.91	4.35	
02/10	16:42:00	352.0000	3287.10	92.22	4.08	
02/10	16:57:00	367.0000	3291.05	91.65	3.95	
02/10	17:12:00	382.0000	3294.86	91.11	3.81	
02/10	17:27:00	397.0000	3298.41	90.64	3.55	
02/10	17:42:00	412.0000	3301.90	90.24	3.49	
02/10	17:57:00	427.0000	3305.21	89.88	3.31	
02/10	18:12:00	442.0000	3308.63	89.56	3.42	
02/10	18:27:00	457.0000	3311.53	89.27	2.90	
02/10	18:42:00	472.0000	3314.65	89.03	3.12	
02/10	18:57:00	487.0000	3317.38	88.80	2.72	
02/10	19:12:00	502.0000	3319.93	88.60	2.55	
02/10	19:27:00	517.0000	3322.36	88.45	2.43	
02/10	19:42:00	532.0000	3324.86	88.33	2.50	
02/10	19:57:00	547.0000	3327.29	88.21	2.43	
02/10	20:12:00	562.0000	3329.72	88.09	2.43	
02/10	20:27:00	577.0000	3331.95	87.98	2.23	
02/10	20:42:00	592.0000	3334.36	87.88	2.41	
02/10	20:57:00	607.0000	3336.62	87.77	2.26	

COMPANY: MERRION OIL AND GAS

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WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/10	21:12:00	622.0000	3338.75	87.68	2.13	
02/10	21:27:00	637.0000	3340.83	87.61	2.08	
02/10	21:42:00	652.0000	3342.77	87.54	1.94	
02/10	21:57:00	667.0000	3344.91	87.44	2.14	
02/10	22:12:00	682.0000	3346.98	87.36	2.07	
02/10	22:27:00	697.0000	3348.71	87.29	1.73	
02/10	22:42:00	712.0000	3350.84	87.23	2.13	
02/10	22:57:00	727.0000	3352.87	87.15	2.03	
02/10	23:12:00	742.0000	3354.66	87.08	1.79	
02/10	23:27:00	757.0000	3356.25	87.01	1.59	
02/10	23:42:00	772.0000	3357.88	86.99	1.63	
02/10	23:57:00	787.0000	3359.49	86.96	1.61	
02/11	00:12:00	802.0000	3360.79	86.95	1.30	
02/11	00:27:00	817.0000	3362.13	86.95	1.34	
02/11	00:42:00	832.0000	3363.32	86.95	1.19	
02/11	00:57:00	847.0000	3364.87	86.93	1.54	
02/11	01:12:00	862.0000	3366.35	86.92	1.48	
02/11	01:27:00	877.0000	3367.84	86.90	1.49	
02/11	01:42:00	892.0000	3370.15	86.89	2.30	
02/11	01:57:00	907.0000	3371.55	86.91	1.41	
02/11	02:12:00	922.0000	3373.22	86.89	1.66	
02/11	02:27:00	937.0000	3375.14	86.86	1.93	
02/11	02:42:00	952.0000	3376.72	86.84	1.58	
02/11	02:57:00	967.0000	3378.21	86.80	1.49	
02/11	03:12:00	982.0000	3379.58	86.80	1.37	
02/11	03:27:00	997.0000	3380.83	86.80	1.25	
02/11	03:42:00	1012.0000	3382.25	86.81	1.42	
02/11	03:57:00	1027.0000	3383.56	86.82	1.32	
02/11	04:12:00	1042.0000	3385.05	86.80	1.49	
02/11	04:27:00	1057.0000	3386.22	86.77	1.17	
02/11	04:42:00	1072.0000	3387.33	86.75	1.11	
02/11	04:57:00	1087.0000	3388.41	86.73	1.08	
02/11	05:12:00	1102.0000	3389.55	86.70	1.14	
02/11	05:27:00	1117.0000	3390.65	86.68	1.09	
02/11	05:42:00	1132.0000	3391.68	86.66	1.03	
02/11	05:57:00	1147.0000	3392.97	86.63	1.29	
02/11	06:12:00	1162.0000	3392.18	86.61	-.79	
02/11	06:27:00	1177.0000	3391.90	86.58	-.28	
02/11	06:42:00	1192.0000	3391.87	86.58	-.03	
02/11	06:57:00	1207.0000	3392.16	86.53	.29	
02/11	07:12:00	1222.0000	3392.66	86.49	.50	
02/11	07:27:00	1237.0000	3393.22	86.45	.56	
02/11	07:42:00	1252.0000	3393.83	86.43	.61	
02/11	07:57:00	1267.0000	3394.45	86.38	.62	
02/11	08:12:00	1282.0000	3395.10	86.34	.65	
02/11	08:27:00	1297.0000	3395.92	86.28	.83	
02/11	08:42:00	1312.0000	3396.63	86.21	.70	
02/11	08:57:00	1327.0000	3397.37	86.17	.75	
02/11	09:12:00	1342.0000	3397.97	86.13	.60	
02/11	09:27:00	1357.0000	3398.44	86.10	.47	
02/11	09:42:00	1372.0000	3398.81	86.10	.37	
02/11	09:57:00	1387.0000	3399.29	86.10	.48	
02/11	10:12:00	1402.0000	3399.79	86.10	.50	
02/11	10:27:00	1417.0000	3400.39	86.10	.59	
02/11	10:42:00	1432.0000	3400.89	86.08	.50	
02/11	10:57:00	1447.0000	3401.34	86.03	.46	
02/11	11:12:00	1462.0000	3401.94	86.00	.60	
02/11	11:27:00	1477.0000	3402.61	85.96	.67	
02/11	11:42:00	1492.0000	3403.25	85.96	.64	
02/11	11:57:00	1507.0000	3403.90	85.94	.65	
02/11	12:12:00	1522.0000	3404.58	85.91	.69	
02/11	12:27:00	1537.0000	3405.29	85.87	.71	
02/11	12:42:00	1552.0000	3405.99	85.83	.70	
02/11	12:57:00	1567.0000	3406.73	85.79	.75	
02/11	13:12:00	1582.0000	3407.51	85.75	.78	

COMPANY: MERRION OIL AND GAS

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WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/11	13:27:00	1597.0000	3408.15	85.74	.64	
02/11	13:42:00	1612.0000	3408.79	85.76	.65	
02/11	13:57:00	1627.0000	3409.42	85.75	.63	
02/11	14:12:00	1642.0000	3410.04	85.72	.61	
02/11	14:27:00	1657.0000	3410.73	85.69	.69	
02/11	14:42:00	1672.0000	3411.45	85.65	.72	
02/11	14:57:00	1687.0000	3412.13	85.61	.67	
02/11	15:12:00	1702.0000	3412.85	85.60	.72	
02/11	15:27:00	1717.0000	3413.79	85.54	.94	
02/11	15:42:00	1732.0000	3414.45	85.55	.66	
02/11	15:57:00	1747.0000	3415.19	85.51	.74	
02/11	16:12:00	1762.0000	3415.80	85.48	.61	
02/11	16:27:00	1777.0000	3416.38	85.45	.58	
02/11	16:42:00	1792.0000	3417.08	85.41	.70	
02/11	16:57:00	1807.0000	3417.68	85.39	.59	
02/11	17:12:00	1822.0000	3418.31	85.35	.64	
02/11	17:27:00	1837.0000	3418.99	85.35	.68	
02/11	17:42:00	1852.0000	3419.50	85.35	.51	
02/11	17:57:00	1867.0000	3419.78	85.36	.28	
02/11	18:12:00	1882.0000	3420.79	85.50	1.00	
02/11	18:27:00	1897.0000	3422.16	85.55	1.37	
02/11	18:42:00	1912.0000	3423.45	85.49	1.29	
02/11	18:57:00	1927.0000	3424.37	85.45	.92	
02/11	19:12:00	1942.0000	3423.42	85.41	-.95	
02/11	19:27:00	1957.0000	3429.67	85.39	6.25	
02/11	19:42:00	1972.0000	3433.52	85.41	3.86	
02/11	19:57:00	1987.0000	3436.99	85.43	3.47	
02/11	20:12:00	2002.0000	3439.78	85.46	2.79	
02/11	20:27:00	2017.0000	3442.36	85.50	2.58	
02/11	20:42:00	2032.0000	3444.63	85.53	2.27	
02/11	20:57:00	2047.0000	3446.70	85.53	2.07	
02/11	21:12:00	2062.0000	3447.96	85.53	1.26	
02/11	21:27:00	2077.0000	3449.51	85.53	1.55	
02/11	21:42:00	2092.0000	3451.49	85.53	1.98	
02/11	21:57:00	2107.0000	3453.22	85.55	1.72	
02/11	22:12:00	2122.0000	3454.89	85.61	1.67	
02/11	22:27:00	2137.0000	3456.92	85.66	2.03	
02/11	22:42:00	2152.0000	3457.45	85.69	.53	
02/11	22:57:00	2167.0000	3458.32	85.90	.87	
02/11	23:12:00	2182.0000	3459.42	86.13	1.10	
02/11	23:27:00	2197.0000	3461.93	86.23	2.51	
02/11	23:42:00	2212.0000	3464.15	86.22	2.22	
02/11	23:57:00	2227.0000	3465.20	86.22	1.05	
02/12	00:12:00	2242.0000	3467.22	86.26	2.02	
02/12	00:27:00	2257.0000	3469.25	86.25	2.03	
02/12	00:42:00	2272.0000	3471.63	86.31	2.38	
02/12	00:57:00	2287.0000	3473.76	86.38	2.13	
02/12	01:12:00	2302.0000	3472.85	86.42	-.91	
02/12	01:27:00	2317.0000	3473.38	86.43	.52	
02/12	01:42:00	2332.0000	3474.24	86.44	.86	
02/12	01:57:00	2347.0000	3475.36	86.42	1.13	
02/12	02:12:00	2362.0000	3476.27	86.42	.90	
02/12	02:27:00	2377.0000	3477.20	86.42	.93	
02/12	02:42:00	2392.0000	3478.05	86.43	.85	
02/12	02:57:00	2407.0000	3479.02	86.46	.97	
02/12	03:12:00	2422.0000	3479.89	86.54	.87	
02/12	03:27:00	2437.0000	3480.80	86.56	.91	
02/12	03:42:00	2452.0000	3481.69	86.58	.89	
02/12	03:57:00	2467.0000	3482.78	86.56	1.08	
02/12	04:12:00	2482.0000	3483.77	86.54	.99	
02/12	04:27:00	2497.0000	3484.64	86.51	.88	
02/12	04:42:00	2512.0000	3485.57	86.48	.92	
02/12	04:57:00	2527.0000	3486.44	86.46	.87	
02/12	05:12:00	2542.0000	3487.23	86.44	.79	
02/12	05:27:00	2557.0000	3488.02	86.51	.79	

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/12	05:42:00	2572.0000	3490.21	86.53	2.19	
02/12	05:57:00	2587.0000	3491.74	86.52	1.53	
02/12	06:12:00	2602.0000	3493.21	86.49	1.48	
02/12	06:27:00	2617.0000	3494.49	86.49	1.28	
02/12	06:42:00	2632.0000	3495.78	86.48	1.29	
02/12	06:57:00	2647.0000	3497.05	86.45	1.27	
02/12	07:12:00	2662.0000	3498.28	86.45	1.22	
02/12	07:27:00	2677.0000	3499.59	86.45	1.31	
02/12	07:42:00	2692.0000	3500.67	86.47	1.08	
02/12	07:57:00	2707.0000	3501.80	86.53	1.13	
02/12	08:12:00	2722.0000	3502.73	86.52	.92	
02/12	08:27:00	2737.0000	3503.73	86.53	1.01	
02/12	08:42:00	2752.0000	3504.59	86.53	.85	
02/12	08:57:00	2767.0000	3505.58	86.51	.99	
02/12	09:12:00	2782.0000	3506.52	86.50	.95	
02/12	09:27:00	2797.0000	3507.42	86.48	.90	
02/12	09:42:00	2812.0000	3508.30	86.46	.89	
02/12	09:57:00	2827.0000	3509.14	86.47	.83	
02/12	10:12:00	2842.0000	3509.93	86.53	.79	
02/12	10:27:00	2857.0000	3510.59	86.55	.66	
02/12	10:42:00	2872.0000	3511.08	86.54	.49	
02/12	10:57:00	2887.0000	3511.39	86.53	.31	
02/12	11:12:00	2902.0000	3511.93	86.53	.54	
02/12	11:27:00	2917.0000	3512.67	86.53	.74	
02/12	11:42:00	2932.0000	3513.76	86.53	1.09	
02/12	11:57:00	2947.0000	3514.70	86.51	.94	
02/12	12:12:00	2962.0000	3515.90	86.49	1.20	
02/12	12:27:00	2977.0000	3516.87	86.49	.96	
02/12	12:42:00	2992.0000	3516.62	86.46	-.24	
02/12	12:57:00	3007.0000	3516.78	86.46	.15	
02/12	13:12:00	3022.0000	3517.27	86.51	.49	
02/12	13:27:00	3037.0000	3517.79	86.57	.52	
02/12	13:42:00	3052.0000	3518.49	86.58	.70	
02/12	13:57:00	3067.0000	3519.27	86.59	.78	
02/12	14:12:00	3082.0000	3507.25	86.82	-12.02	STOPPED INJECTING
02/12	14:27:00	3097.0000	3496.22	87.15	-11.03	WELL SHUT IN FOR FALL-OFF
02/12	14:42:00	3112.0000	3487.49	87.58	-8.73	BEGAN FALL-OFF
02/12	14:57:00	3127.0000	3480.05	87.95	-7.43	
02/12	15:12:00	3142.0000	3473.19	88.25	-6.86	
02/12	15:27:00	3157.0000	3466.89	88.50	-6.30	
02/12	15:42:00	3172.0000	3460.99	88.71	-5.90	
02/12	15:57:00	3187.0000	3455.52	88.91	-5.47	
02/12	16:12:00	3202.0000	3450.57	89.05	-4.94	
02/12	16:27:00	3217.0000	3445.60	89.17	-4.97	
02/12	16:42:00	3232.0000	3440.70	89.32	-4.90	
02/12	16:57:00	3247.0000	3436.41	89.44	-4.30	
02/12	17:12:00	3262.0000	3432.19	89.56	-4.22	
02/12	17:27:00	3277.0000	3428.16	89.64	-4.02	
02/12	17:42:00	3292.0000	3424.40	89.72	-3.76	
02/12	17:57:00	3307.0000	3420.77	89.80	-3.64	
02/12	18:12:00	3322.0000	3417.16	89.85	-3.61	
02/12	18:27:00	3337.0000	3413.85	89.92	-3.31	
02/12	18:42:00	3352.0000	3410.46	89.98	-3.39	
02/12	18:57:00	3367.0000	3407.28	90.03	-3.19	
02/12	19:12:00	3382.0000	3404.16	90.08	-3.11	
02/12	19:27:00	3397.0000	3401.08	90.12	-3.09	
02/12	19:42:00	3412.0000	3398.14	90.17	-2.94	
02/12	19:57:00	3427.0000	3395.22	90.22	-2.92	
02/12	20:12:00	3442.0000	3392.63	90.25	-2.59	
02/12	20:27:00	3457.0000	3389.96	90.30	-2.67	
02/12	20:42:00	3472.0000	3387.45	90.32	-2.50	
02/12	20:57:00	3487.0000	3385.04	90.35	-2.41	
02/12	21:12:00	3502.0000	3382.62	90.38	-2.42	
02/12	21:27:00	3517.0000	3380.29	90.41	-2.34	
02/12	21:42:00	3532.0000	3377.87	90.45	-2.41	

COMPANY: MERRION OIL AND GAS

PAGE 6 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/12	21:57:00	3547.0000	3375.58	90.47	-2.29	
02/12	22:12:00	3562.0000	3373.31	90.52	-2.27	
02/12	22:27:00	3577.0000	3371.11	90.55	-2.20	
02/12	22:42:00	3592.0000	3368.92	90.57	-2.18	
02/12	22:57:00	3607.0000	3366.82	90.59	-2.10	
02/12	23:12:00	3622.0000	3364.83	90.63	-1.99	
02/12	23:27:00	3637.0000	3362.88	90.65	-1.95	
02/12	23:42:00	3652.0000	3361.07	90.67	-1.81	
02/12	23:57:00	3667.0000	3359.16	90.70	-1.91	
02/13	00:12:00	3682.0000	3357.31	90.71	-1.85	
02/13	00:27:00	3697.0000	3355.53	90.74	-1.78	
02/13	00:42:00	3712.0000	3353.56	90.76	-1.98	
02/13	00:57:00	3727.0000	3351.93	90.79	-1.63	
02/13	01:12:00	3742.0000	3350.27	90.80	-1.65	
02/13	01:27:00	3757.0000	3348.63	90.81	-1.65	
02/13	01:42:00	3772.0000	3346.84	90.83	-1.79	
02/13	01:57:00	3787.0000	3345.36	90.84	-1.48	
02/13	02:12:00	3802.0000	3343.82	90.88	-1.54	
02/13	02:27:00	3817.0000	3342.63	90.88	-1.19	
02/13	02:42:00	3832.0000	3341.31	90.88	-1.32	
02/13	02:57:00	3847.0000	3339.98	90.90	-1.33	
02/13	03:12:00	3862.0000	3338.61	90.90	-1.36	
02/13	03:27:00	3877.0000	3337.36	90.91	-1.26	
02/13	03:42:00	3892.0000	3336.04	90.93	-1.31	
02/13	03:57:00	3907.0000	3334.74	90.94	-1.30	
02/13	04:12:00	3922.0000	3333.48	90.95	-1.26	
02/13	04:27:00	3937.0000	3332.16	90.96	-1.32	
02/13	04:42:00	3952.0000	3330.92	90.98	-1.23	
02/13	04:57:00	3967.0000	3329.65	90.99	-1.27	
02/13	05:12:00	3982.0000	3328.41	91.00	-1.25	
02/13	05:27:00	3997.0000	3327.26	91.01	-1.15	
02/13	05:42:00	4012.0000	3326.10	91.03	-1.16	
02/13	05:57:00	4027.0000	3324.96	91.05	-1.14	
02/13	06:12:00	4042.0000	3323.78	91.05	-1.18	
02/13	06:27:00	4057.0000	3322.62	91.06	-1.16	
02/13	06:42:00	4072.0000	3321.43	91.07	-1.19	
02/13	06:57:00	4087.0000	3320.31	91.10	-1.12	
02/13	07:12:00	4102.0000	3319.17	91.11	-1.14	
02/13	07:27:00	4117.0000	3317.98	91.12	-1.20	
02/13	07:42:00	4132.0000	3316.69	91.13	-1.29	
02/13	07:57:00	4147.0000	3315.56	91.14	-1.13	
02/13	08:12:00	4162.0000	3314.39	91.17	-1.17	
02/13	08:27:00	4177.0000	3313.28	91.18	-1.10	
02/13	08:42:00	4192.0000	3312.15	91.20	-1.13	
02/13	08:57:00	4207.0000	3311.10	91.20	-1.05	
02/13	09:12:00	4222.0000	3310.01	91.23	-1.10	
02/13	09:27:00	4237.0000	3309.06	91.24	-.95	
02/13	09:42:00	4252.0000	3308.03	91.24	-1.04	
02/13	09:57:00	4267.0000	3307.01	91.26	-1.01	
02/13	10:12:00	4282.0000	3306.04	91.27	-.98	
02/13	10:27:00	4297.0000	3305.04	91.28	-.99	
02/13	10:42:00	4312.0000	3304.03	91.29	-1.01	
02/13	10:57:00	4327.0000	3303.15	91.29	-.89	
02/13	11:12:00	4342.0000	3302.18	91.31	-.97	
02/13	11:27:00	4357.0000	3301.18	91.32	-1.00	
02/13	11:42:00	4372.0000	3300.08	91.34	-1.10	
02/13	11:57:00	4387.0000	3299.13	91.36	-.94	
02/13	12:12:00	4402.0000	3298.09	91.37	-1.05	
02/13	12:27:00	4417.0000	3297.12	91.38	-.97	
02/13	12:42:00	4432.0000	3296.20	91.39	-.91	
02/13	12:57:00	4447.0000	3295.28	91.41	-.93	
02/13	13:12:00	4462.0000	3294.39	91.41	-.89	
02/13	13:27:00	4477.0000	3293.50	91.42	-.90	
02/13	13:42:00	4492.0000	3292.61	91.43	-.89	
02/13	13:57:00	4507.0000	3291.95	91.43	-.66	

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/13	14:12:00	4522.0000	3291.19	91.44	-.77	
02/13	14:27:00	4537.0000	3290.36	91.45	-.83	
02/13	14:42:00	4552.0000	3289.49	91.46	-.87	
02/13	14:57:00	4567.0000	3288.80	91.46	-.69	
02/13	15:12:00	4582.0000	3288.00	91.47	-.80	
02/13	15:27:00	4597.0000	3287.21	91.48	-.79	
02/13	15:42:00	4612.0000	3286.45	91.49	-.75	
02/13	15:57:00	4627.0000	3285.69	91.49	-.77	
02/13	16:12:00	4642.0000	3284.83	91.51	-.86	
02/13	16:27:00	4657.0000	3284.01	91.52	-.82	
02/13	16:42:00	4672.0000	3283.22	91.53	-.79	
02/13	16:57:00	4687.0000	3282.46	91.55	-.76	
02/13	17:12:00	4702.0000	3281.65	91.55	-.80	
02/13	17:27:00	4717.0000	3280.91	91.56	-.74	
02/13	17:42:00	4732.0000	3280.20	91.57	-.72	
02/13	17:57:00	4747.0000	3279.60	91.57	-.60	
02/13	18:12:00	4762.0000	3279.06	91.57	-.54	
02/13	18:27:00	4777.0000	3278.27	91.58	-.79	
02/13	18:42:00	4792.0000	3277.53	91.59	-.74	
02/13	18:57:00	4807.0000	3276.77	91.60	-.76	
02/13	19:12:00	4822.0000	3275.92	91.62	-.85	
02/13	19:27:00	4837.0000	3275.01	91.63	-.91	
02/13	19:42:00	4852.0000	3274.15	91.65	-.86	
02/13	19:57:00	4867.0000	3273.37	91.66	-.78	
02/13	20:12:00	4882.0000	3272.41	91.68	-.96	
02/13	20:27:00	4897.0000	3271.56	91.68	-.84	
02/13	20:42:00	4912.0000	3270.76	91.70	-.80	
02/13	20:57:00	4927.0000	3269.99	91.71	-.78	
02/13	21:12:00	4942.0000	3269.23	91.72	-.76	
02/13	21:27:00	4957.0000	3268.47	91.72	-.76	
02/13	21:42:00	4972.0000	3267.73	91.74	-.74	
02/13	21:57:00	4987.0000	3267.03	91.75	-.70	
02/13	22:12:00	5002.0000	3266.40	91.75	-.63	
02/13	22:27:00	5017.0000	3265.72	91.75	-.68	
02/13	22:42:00	5032.0000	3265.06	91.76	-.65	
02/13	22:57:00	5047.0000	3264.46	91.76	-.60	
02/13	23:12:00	5062.0000	3263.93	91.77	-.53	
02/13	23:27:00	5077.0000	3263.45	91.77	-.47	
02/13	23:42:00	5092.0000	3262.96	91.77	-.50	
02/13	23:57:00	5107.0000	3262.39	91.76	-.57	
02/14	00:12:00	5122.0000	3261.84	91.78	-.54	
02/14	00:27:00	5137.0000	3261.27	91.78	-.57	
02/14	00:42:00	5152.0000	3260.72	91.79	-.55	
02/14	00:57:00	5167.0000	3260.18	91.80	-.54	
02/14	01:12:00	5182.0000	3259.59	91.80	-.58	
02/14	01:27:00	5197.0000	3259.03	91.80	-.56	
02/14	01:42:00	5212.0000	3258.50	91.81	-.53	
02/14	01:57:00	5227.0000	3257.96	91.82	-.53	
02/14	02:12:00	5242.0000	3257.43	91.82	-.53	
02/14	02:27:00	5257.0000	3256.99	91.82	-.44	
02/14	02:42:00	5272.0000	3256.55	91.82	-.44	
02/14	02:57:00	5287.0000	3256.13	91.83	-.42	
02/14	03:12:00	5302.0000	3255.54	91.84	-.58	
02/14	03:27:00	5317.0000	3255.05	91.84	-.49	
02/14	03:42:00	5332.0000	3254.57	91.85	-.49	
02/14	03:57:00	5347.0000	3254.07	91.84	-.50	
02/14	04:12:00	5362.0000	3253.54	91.86	-.53	
02/14	04:27:00	5377.0000	3253.09	91.86	-.44	
02/14	04:42:00	5392.0000	3252.62	91.87	-.47	
02/14	04:57:00	5407.0000	3252.09	91.87	-.53	
02/14	05:12:00	5422.0000	3251.54	91.89	-.55	
02/14	05:27:00	5437.0000	3251.02	91.89	-.52	
02/14	05:42:00	5452.0000	3250.56	91.89	-.46	
02/14	05:57:00	5467.0000	3250.04	91.89	-.51	
02/14	06:12:00	5482.0000	3249.34	91.91	-.70	

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/14	06:27:00	5497.0000	3248.69	91.92	-.65	
02/14	06:42:00	5512.0000	3248.17	91.93	-.52	
02/14	06:57:00	5527.0000	3247.57	91.94	-.60	
02/14	07:12:00	5542.0000	3246.84	91.96	-.73	
02/14	07:27:00	5557.0000	3246.14	91.97	-.70	
02/14	07:42:00	5572.0000	3245.52	91.98	-.62	
02/14	07:57:00	5587.0000	3244.89	91.99	-.64	
02/14	08:12:00	5602.0000	3244.30	92.00	-.59	
02/14	08:27:00	5617.0000	3243.81	92.00	-.49	
02/14	08:42:00	5632.0000	3243.29	92.01	-.52	
02/14	08:57:00	5647.0000	3242.91	92.00	-.37	
02/14	09:12:00	5662.0000	3242.46	92.01	-.45	
02/14	09:27:00	5677.0000	3242.04	92.01	-.42	
02/14	09:42:00	5692.0000	3241.59	92.01	-.45	
02/14	09:57:00	5707.0000	3241.22	92.01	-.37	
02/14	10:12:00	5722.0000	3240.80	92.01	-.42	
02/14	10:27:00	5737.0000	3240.39	92.02	-.41	
02/14	10:42:00	5752.0000	3239.92	92.03	-.47	
02/14	10:57:00	5767.0000	3239.43	92.02	-.49	
02/14	11:12:00	5782.0000	3238.93	92.04	-.50	
02/14	11:27:00	5797.0000	3238.54	92.04	-.38	
02/14	11:42:00	5812.0000	3238.05	92.04	-.49	
02/14	11:57:00	5827.0000	3237.58	92.06	-.47	
02/14	12:12:00	5842.0000	3237.01	92.07	-.57	
02/14	12:27:00	5857.0000	3236.57	92.07	-.45	
02/14	12:42:00	5872.0000	3236.06	92.07	-.51	
02/14	12:57:00	5887.0000	3235.55	92.09	-.51	
02/14	13:12:00	5902.0000	3235.02	92.09	-.54	
02/14	13:27:00	5917.0000	3234.55	92.10	-.46	
02/14	13:42:00	5932.0000	3234.16	92.10	-.40	
02/14	13:57:00	5947.0000	3233.80	92.09	-.36	
02/14	14:12:00	5962.0000	3233.23	92.11	-.57	
02/14	14:27:00	5977.0000	3232.76	92.12	-.47	
02/14	14:42:00	5992.0000	3232.32	92.13	-.44	
02/14	14:57:00	6007.0000	3231.85	92.14	-.47	
02/14	15:12:00	6022.0000	3231.46	92.14	-.40	
02/14	15:27:00	6037.0000	3231.00	92.14	-.45	
02/14	15:42:00	6052.0000	3230.65	92.14	-.35	
02/14	15:57:00	6067.0000	3230.05	92.16	-.59	
02/14	16:12:00	6082.0000	3229.42	92.16	-.63	
02/14	16:27:00	6097.0000	3228.84	92.18	-.59	
02/14	16:42:00	6112.0000	3228.31	92.18	-.53	
02/14	16:57:00	6127.0000	3227.72	92.20	-.59	
02/14	17:12:00	6142.0000	3227.21	92.21	-.51	
02/14	17:27:00	6157.0000	3226.78	92.21	-.43	
02/14	17:42:00	6172.0000	3226.43	92.21	-.35	
02/14	17:57:00	6187.0000	3226.08	92.21	-.35	
02/14	18:12:00	6202.0000	3225.69	92.21	-.40	
02/14	18:27:00	6217.0000	3225.27	92.21	-.41	
02/14	18:42:00	6232.0000	3225.03	92.21	-.24	
02/14	18:57:00	6247.0000	3224.63	92.22	-.40	
02/14	19:12:00	6262.0000	3224.29	92.21	-.34	
02/14	19:27:00	6277.0000	3223.93	92.22	-.37	
02/14	19:42:00	6292.0000	3223.61	92.22	-.32	
02/14	19:57:00	6307.0000	3223.34	92.22	-.28	
02/14	20:12:00	6322.0000	3223.24	92.21	-.09	
02/14	20:27:00	6337.0000	3223.05	92.20	-.19	
02/14	20:42:00	6352.0000	3222.88	92.20	-.17	
02/14	20:57:00	6367.0000	3222.67	92.19	-.20	
02/14	21:12:00	6382.0000	3222.52	92.18	-.16	
02/14	21:27:00	6397.0000	3222.41	92.18	-.10	
02/14	21:42:00	6412.0000	3222.20	92.18	-.21	
02/14	21:57:00	6427.0000	3222.16	92.17	-.04	
02/14	22:12:00	6442.0000	3222.06	92.16	-.10	
02/14	22:27:00	6457.0000	3221.91	92.16	-.15	

COMPANY: MERRION OIL AND GAS

PAGE 9 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/14	22:42:00	6472.0000	3221.74	92.15	-.17	
02/14	22:57:00	6487.0000	3221.51	92.16	-.23	
02/14	23:12:00	6502.0000	3221.36	92.16	-.15	
02/14	23:27:00	6517.0000	3221.06	92.17	-.30	
02/14	23:42:00	6532.0000	3220.74	92.18	-.32	
02/14	23:57:00	6547.0000	3220.43	92.18	-.31	
02/15	00:12:00	6562.0000	3220.25	92.18	-.18	
02/15	00:27:00	6577.0000	3220.04	92.18	-.21	
02/15	00:42:00	6592.0000	3219.82	92.18	-.22	
02/15	00:57:00	6607.0000	3219.63	92.19	-.19	
02/15	01:12:00	6622.0000	3219.45	92.18	-.18	
02/15	01:27:00	6637.0000	3219.22	92.19	-.23	
02/15	01:42:00	6652.0000	3219.00	92.19	-.23	
02/15	01:57:00	6667.0000	3218.88	92.19	-.12	
02/15	02:12:00	6682.0000	3218.73	92.18	-.15	
02/15	02:27:00	6697.0000	3218.65	92.18	-.08	
02/15	02:42:00	6712.0000	3218.47	92.18	-.17	
02/15	02:57:00	6727.0000	3218.32	92.18	-.15	
02/15	03:12:00	6742.0000	3218.17	92.18	-.15	
02/15	03:27:00	6757.0000	3218.03	92.18	-.14	
02/15	03:42:00	6772.0000	3217.86	92.18	-.17	
02/15	03:57:00	6787.0000	3217.51	92.20	-.35	
02/15	04:12:00	6802.0000	3217.29	92.21	-.23	
02/15	04:27:00	6817.0000	3217.10	92.21	-.19	
02/15	04:42:00	6832.0000	3216.86	92.21	-.24	
02/15	04:57:00	6847.0000	3216.67	92.22	-.19	
02/15	05:12:00	6862.0000	3216.48	92.21	-.19	
02/15	05:27:00	6877.0000	3216.18	92.23	-.30	
02/15	05:42:00	6892.0000	3216.22	92.21	.03	
02/15	05:57:00	6907.0000	3216.24	92.19	.03	
02/15	06:12:00	6922.0000	3216.23	92.18	-.01	
02/15	06:27:00	6937.0000	3216.14	92.18	-.09	
02/15	06:42:00	6952.0000	3216.05	92.18	-.09	
02/15	06:57:00	6967.0000	3216.01	92.18	-.04	
02/15	07:12:00	6982.0000	3215.98	92.17	-.02	
02/15	07:27:00	6997.0000	3216.35	92.14	.37	
02/15	07:42:00	7012.0000	3216.89	92.06	.54	
02/15	07:57:00	7027.0000	3217.30	92.01	.41	
02/15	08:12:00	7042.0000	3217.69	91.99	.39	
02/15	08:27:00	7057.0000	3218.01	91.95	.32	
02/15	08:42:00	7072.0000	3218.30	91.94	.29	
02/15	08:57:00	7087.0000	3218.42	91.94	.12	
02/15	09:12:00	7102.0000	3218.68	91.94	.26	
02/15	09:27:00	7117.0000	3218.89	91.93	.20	
02/15	09:42:00	7132.0000	3218.99	91.93	.10	
02/15	09:57:00	7147.0000	3219.14	91.93	.15	
02/15	10:12:00	7162.0000	3219.31	91.92	.17	
02/15	10:27:00	7177.0000	3219.68	91.89	.37	
02/15	10:42:00	7192.0000	3219.97	91.85	.29	
02/15	10:57:00	7207.0000	3220.31	91.82	.34	
02/15	11:12:00	7222.0000	3220.57	91.81	.27	
02/15	11:27:00	7237.0000	3220.84	91.80	.27	
02/15	11:42:00	7252.0000	3220.93	91.80	.09	
02/15	11:57:00	7267.0000	3221.03	91.80	.09	
02/15	12:12:00	7282.0000	3221.06	91.83	.03	
02/15	12:27:00	7297.0000	3221.31	91.82	.25	
02/15	12:42:00	7312.0000	3221.53	91.80	.22	
02/15	12:57:00	7327.0000	3221.74	91.78	.21	
02/15	13:12:00	7342.0000	3221.95	91.75	.21	
02/15	13:27:00	7357.0000	3222.17	91.74	.22	
02/15	13:42:00	7372.0000	3222.26	91.75	.09	
02/15	13:57:00	7387.0000	3222.31	91.71	.05	
02/15	14:12:00	7402.0000	3226.14	91.70	3.83	
02/15	14:27:00	7417.0000	3226.56	91.53	.42	
02/15	14:28:00	7418.0000	3226.61	91.53	.05	

TANDEM ELEC. MEMORY INST. OFF BOTTOM

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
02/15	14:29:00	7419.0000	3192.96	91.52	-33.65	
02/15	14:29:15	7419.2500	3172.66	91.58	-20.31	
02/15	14:29:30	7419.5000	3151.63	92.59	-21.03	
02/15	14:29:45	7419.7500	3130.47	93.59	-21.16	
02/15	14:30:00	7420.0000	3107.82	94.61	-22.65	
02/15	14:30:15	7420.2500	3085.18	95.61	-22.64	
02/15	14:30:30	7420.5000	3062.40	96.62	-22.78	
02/15	14:31:15	7421.2500	3046.15	99.65	-16.25	
02/15	14:32:00	7422.0000	3046.53	102.68	.39	
02/15	14:32:45	7422.7500	3046.57	105.93	.04	
02/15	14:33:45	7423.7500	3046.49	109.57	-.08	
02/15	14:34:45	7424.7500	3045.98	113.21	-.51	
02/15	14:36:30	7426.5000	3045.69	116.23	-.29	
02/15	14:38:15	7428.2500	3045.47	118.35	-.23	STOP @ 4000'
02/15	14:38:30	7428.5000	3023.59	118.30	-21.88	
02/15	14:38:45	7428.7500	2991.34	118.25	-32.25	
02/15	14:39:00	7429.0000	2958.95	118.21	-32.39	
02/15	14:39:15	7429.2500	2926.44	118.16	-32.52	
02/15	14:39:30	7429.5000	2893.65	118.12	-32.79	
02/15	14:39:45	7429.7500	2860.47	118.07	-33.18	
02/15	14:40:00	7430.0000	2827.15	118.03	-33.32	
02/15	14:40:15	7430.2500	2793.43	117.98	-33.72	
02/15	14:40:30	7430.5000	2755.70	117.94	-37.74	
02/15	14:40:45	7430.7500	2717.56	117.89	-38.13	
02/15	14:41:00	7431.0000	2679.03	117.85	-38.53	
02/15	14:41:15	7431.2500	2640.41	117.46	-38.62	
02/15	14:41:30	7431.5000	2609.22	116.96	-31.20	
02/15	14:43:00	7433.0000	2608.51	113.91	-.70	
02/15	14:44:45	7434.7500	2608.64	110.91	.13	
02/15	14:48:00	7438.0000	2609.30	107.69	.65	STOP @ 3000'
02/15	14:49:00	7439.0000	2508.09	107.22	-101.20	
02/15	14:49:15	7439.2500	2468.21	107.15	-39.88	
02/15	14:49:30	7439.5000	2427.59	106.65	-40.62	
02/15	14:49:45	7439.7500	2387.11	106.16	-40.48	
02/15	14:50:00	7440.0000	2346.23	105.66	-40.89	
02/15	14:50:15	7440.2500	2304.93	105.17	-41.29	
02/15	14:50:30	7440.5000	2263.91	104.67	-41.02	
02/15	14:50:45	7440.7500	2221.55	104.17	-42.36	
02/15	14:51:00	7441.0000	2187.36	103.67	-34.19	
02/15	14:52:30	7442.5000	2171.27	100.19	-16.08	
02/15	14:53:45	7443.7500	2171.46	96.92	.19	
02/15	14:55:00	7445.0000	2172.06	93.67	.60	
02/15	14:57:45	7447.7500	2172.26	90.67	.20	
02/15	14:58:15	7448.2500	2172.31	90.25	.04	STOP @ 2000'
02/15	14:58:30	7448.5000	2147.15	89.87	-25.15	
02/15	14:58:45	7448.7500	2117.01	89.48	-30.14	
02/15	14:59:00	7449.0000	2082.44	89.10	-34.57	
02/15	14:59:15	7449.2500	2038.89	88.71	-43.55	
02/15	14:59:30	7449.5000	1994.80	88.33	-44.09	
02/15	14:59:45	7449.7500	1950.31	87.94	-44.49	
02/15	15:00:00	7450.0000	1905.41	87.56	-44.90	
02/15	15:00:15	7450.2500	1860.52	87.17	-44.89	
02/15	15:00:30	7450.5000	1815.49	86.79	-45.03	
02/15	15:00:45	7450.7500	1769.79	86.40	-45.70	
02/15	15:01:00	7451.0000	1735.61	86.02	-34.18	
02/15	15:02:00	7452.0000	1732.60	82.53	-3.01	
02/15	15:03:00	7453.0000	1733.63	79.03	1.02	
02/15	15:04:00	7454.0000	1733.99	75.53	.37	
02/15	15:06:00	7456.0000	1734.24	72.05	.24	
02/15	15:08:00	7458.0000	1734.52	69.62	.28	STOP @ 1000'
02/15	15:09:00	7459.0000	1654.21	68.98	-80.31	
02/15	15:09:15	7459.2500	1623.79	68.86	-30.42	
02/15	15:09:30	7459.5000	1593.17	68.52	-30.63	
02/15	15:09:45	7459.7500	1562.67	68.19	-30.50	
02/15	15:10:00	7460.0000	1531.24	67.84	-31.43	

COMPANY: MERRION OIL AND GAS

PAGE 11 OF 11

WELL NAME : SUNCO SWD NO. 1

DATE : 02/17/14

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F240217.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/15	15:10:15	7460.2500	1499.40	67.51	-31.84	
02/15	15:10:30	7460.5000	1466.89	67.17	-32.51	
02/15	15:10:45	7460.7500	1433.97	66.83	-32.91	
02/15	15:11:00	7461.0000	1401.19	66.50	-32.78	
02/15	15:11:15	7461.2500	1367.20	66.16	-33.99	
02/15	15:11:30	7461.5000	1335.77	65.82	-31.44	
02/15	15:11:45	7461.7500	1317.20	65.49	-18.56	
02/15	15:12:00	7462.0000	1302.26	65.15	-14.94	
02/15	15:12:15	7462.2500	1291.92	64.67	-10.34	
02/15	15:16:15	7466.2500	1290.79	67.92	-1.13	
02/15	15:19:00	7469.0000	1284.64	71.90	-6.15	
02/15	15:20:15	7470.2500	1280.50	72.69	-4.13	
02/15	15:20:30	7470.5000	1250.04	72.83	-30.46	
02/15	15:20:45	7470.7500	1158.68	72.97	-91.37	
02/15	15:21:00	7471.0000	1096.28	73.11	-62.40	
02/15	15:21:15	7471.2500	1018.86	73.25	-77.42	
02/15	15:21:30	7471.5000	949.49	73.39	-69.37	
02/15	15:21:45	7471.7500	81.55	73.53	-867.93	
02/15	15:22:00	7472.0000	28.49	73.66	-53.07	
02/15	15:22:15	7472.2500	28.75	73.72	.27	
02/15	15:22:30	7472.5000	2.01	73.74	-26.74	
02/15	15:28:15	7478.2500	.01	70.41	-2.00	

SURFACE STOP

Company: MERRION OIL AND GAS
Well: SUNCO SWD NO. 1
Field:
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000
Gauge Depth: 4405 ft
Serial No.: 240

County: SAN JUAN
State: NEW MEXICO
Date: 02/10/2014
Well Type: SALT WATER DISP.
Test Type: GRADIENT
Status: INJECTING WATER
File Name: 64920A

Tubing: 2-7/8" TO 4282'
Tubing: TO
Casing: TO
Perfs.: 4350' - 4460'

Packer Depth 4282 ft

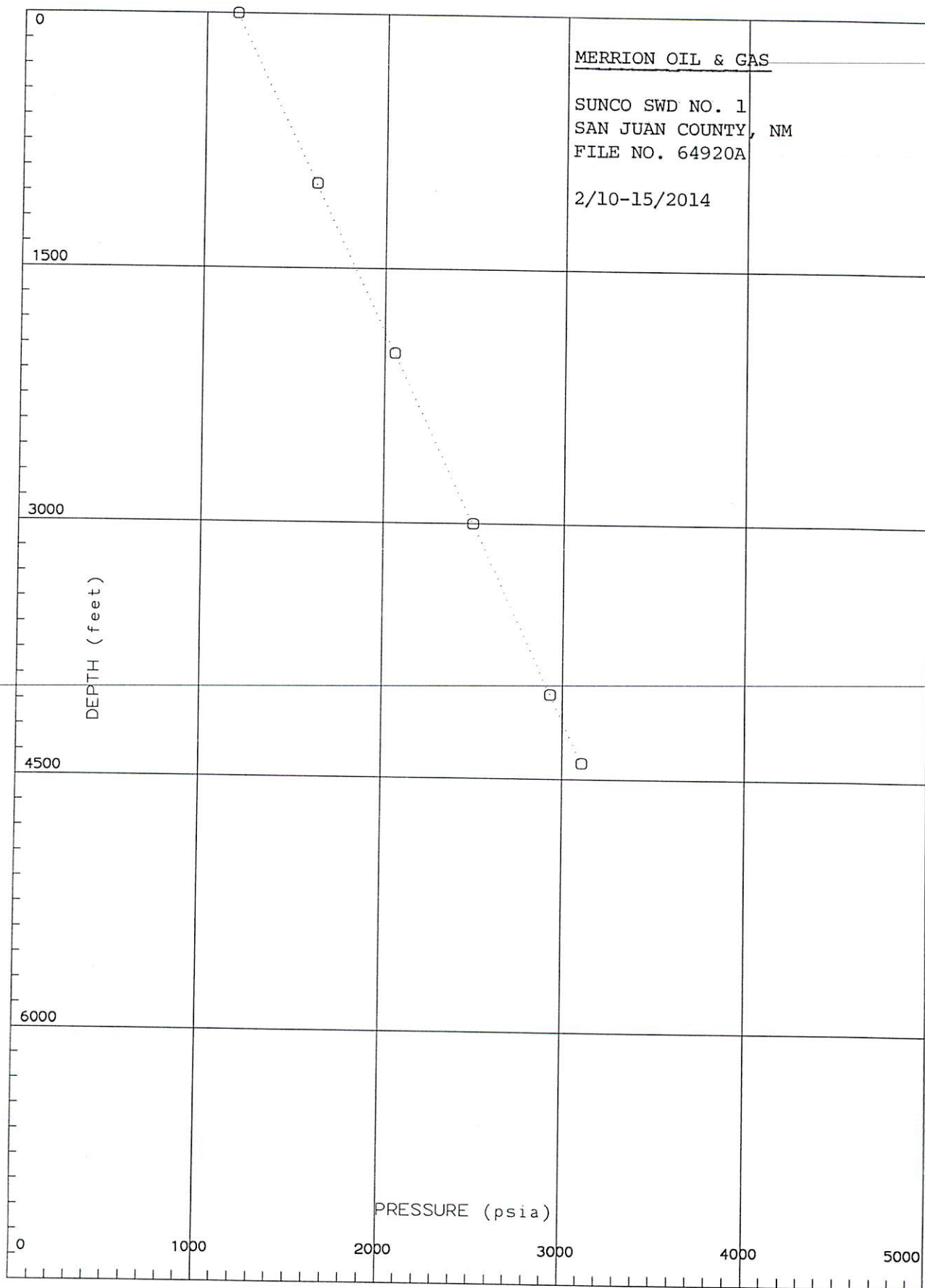
Oil Level
H2O Level

Flowing BHP 3106 @ 4405 ft Flowing BHT 87 F @ 4405 ft
Flowing WHP 1168 Flowing WHT 0 F

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1168.00	
2	1000	1000	1613.00	0.445
3	2000	2000	2053.00	0.440
4	3000	3000	2491.00	0.438
5	4000	4000	2929.00	0.438
6	4405	4405	3106.00	0.437

WATER LEVEL - INJECTING



Company: MERRION OIL AND GAS
Well: SUNCO SWD NO. 1
Field:
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000'
Gauge Depth: 4405 ft
Serial No.: 240

County: SAN JUAN
State: NEW MEXIOOC
Date: 02/15/2014
Well Type: SALT WATER DISP.
Test Type: GRADIENT
Status: SHUT IN
File Name: 64920B

Tubing: 2-7/8" TO 4282'
Tubing: TO
Casing: TO
Perfs.:
Shut-in Time 72 hrs

Packer Depth 4282 ft
Oil Level
H2O Level

Shut-in BHP 3227 @ 4405 ft Shut-in BHT 92 F @ 4405 ft
Shut-in WHP 1290 Shut-in WHT 0 F

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	4405	4405	3227.00	
2	4000	4000	3045.00	0.449
3	3000	3000	2609.00	0.436
4	2000	2000	2172.00	0.437
5	1000	1000	1735.00	0.437
6	0	0	1290.00	0.445

WATER LEVEL @ SURFACE

