

DATE IN	SUSPENSE	ENGINEER <i>WVD</i>	LOGGED IN	TYPE <i>IPS</i> 492	APPROVAL <i>PHM 151815470</i>
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

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

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

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

Check One Only for [B] or [C]

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

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

[D] Other: Specify _____

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

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

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

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Daniel Hunter

[Signature]

Engineer - Sundown Energy LP

06/24/15

Print or Type Name

Signature

Title

Date

dhunter@sundownenergy.com
 e-mail Address

June 24th, 2015

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

Attention: Mr. Richard Ezeanyim

Re: Injection Pressure Increase
REEVES (QUEEN) Waterflood Unit
Wells No. 1 & 2
Queen Sand
Lea County, New Mexico

Dear Mr. Ezeanyim,

Sundown Energy, LP, as operator of Reeves (Queen) Waterflood Project, hereby requests Division approval to increase the surface injection pressure on the following-described injection wells located within the Unit Area. In compliance with Division regulations, Sundown Energy, LP, has conducted step rate injection tests on these wells during June, 2015.

<u>Well No.</u>	<u>API No.</u>	<u>Well Location</u>	<u>Order No.</u>	<u>Requested Pressure</u>
Reeves(Queen) WFU#1	30-025-29340	660' FNL & 660' FEL Sec 28-18S-35E	R-13786	1242 psi $1200/4472 = .27$
Reeves(Queen) WFU#2	30-025-29526	330' FNL & 1650' FEL Sec 28-18S-35E	R-13786 R-13785 1-21-14	1435 psi $1350/4480 = 0.30$

initial = 894 psi

The step rate injection tests conducted by Cardinal Survey Company are attached.

If you have any questions, please contact me at 214.368.6100.

Sincerely,



Daniel Hunter
Operations Engineer
Sundown Energy, LP
16400 Dallas Parkway
Suite 100
Dallas, TX 75248

Core 15035 UNIT
Core 15048

Step Rate Test



Cardinal Surveys Company

6/17/2015

Intercept @ 416.1 BPD
3201.3 BHPSIA,
1242 Surf PSIA

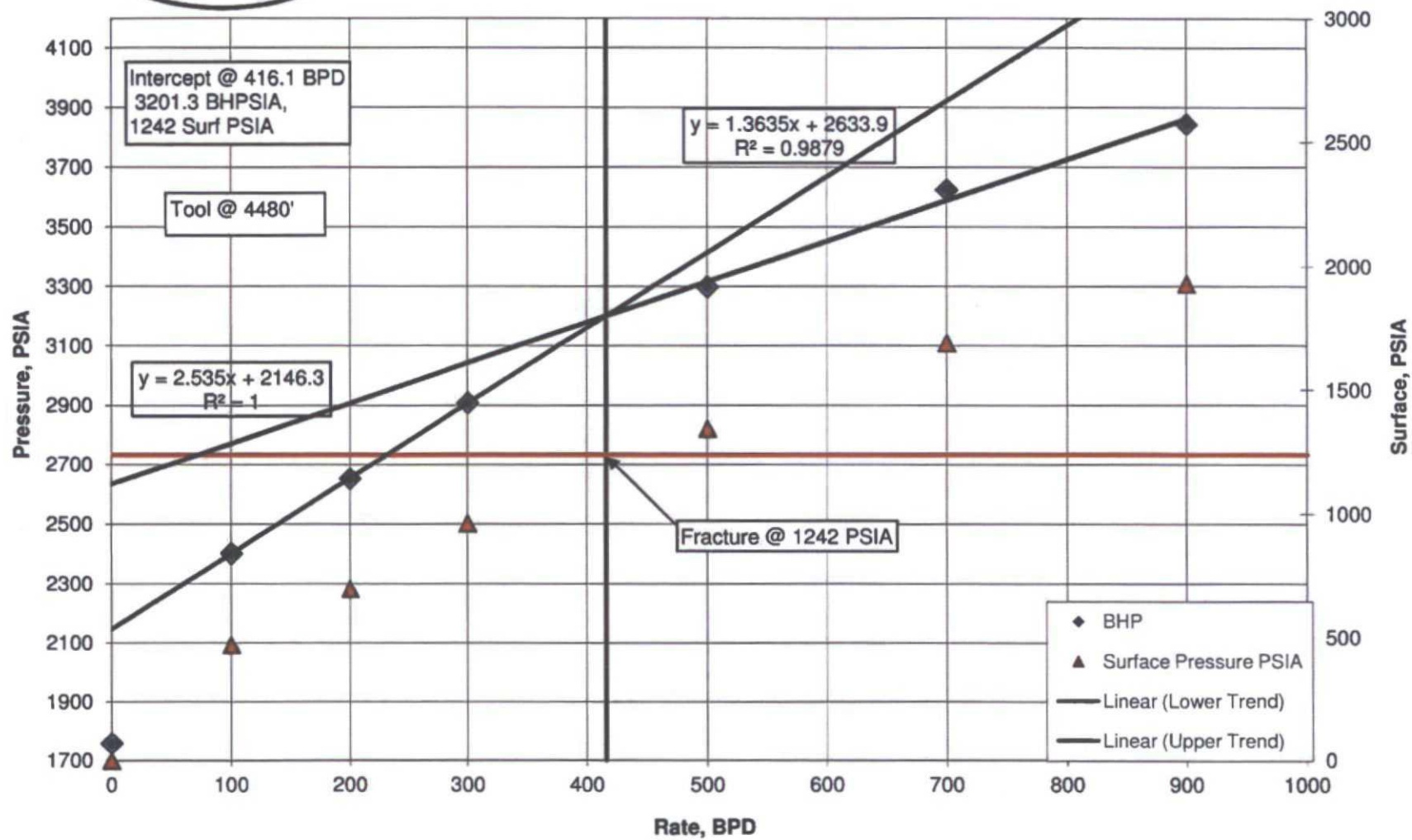
Sundown Energy
Reeves Queen # 1
N/A
Lea, New Mexico
File # 22230
Tool # 204

Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ 4480'

	Start Time	End Time	Rate BPD	Comments
1	10:08 AM	11:15 AM		0 On Bottom
2	11:15 AM	11:45 AM	100	
3	11:45 AM	12:15 PM	200	
4	12:15 PM	12:45 PM	300	
5	12:45 PM	1:15 PM	500	
6	1:15 PM	1:45 PM	700	
7	1:45 PM	2:15 PM	900	
8	2:15 PM	2:45 PM		0 Fall Off



Sundown Energy Reeves Queen # 1
Step Rate Test 06-17-2015



Step Rate Test

Sundown Energy
Reeves Queen # 1
N/A
Lea, New Mexico



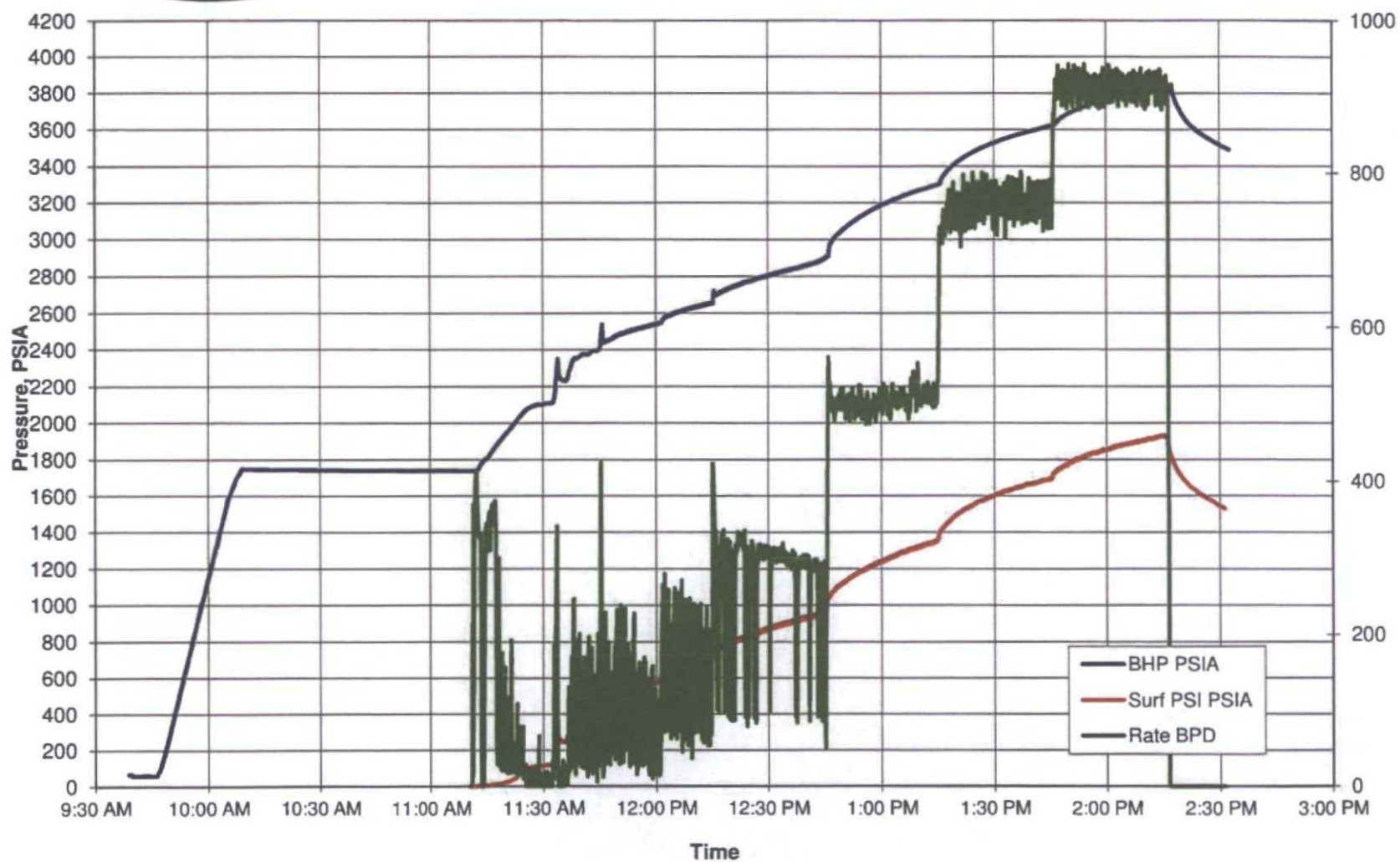
	S Time	E Time	D Time Min	Last Rate BPD	Step I. Pressure BPD PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Avg From Raw Data	Lower Trend	Upper Trend
1	10:08 AM	11:15 AM	67	0	0 1758.5	0	0	0	0			
2	11:15 AM	11:45 AM	30	100	100 2400.6	471	2.2	2.2	105.6		2400.6	
3	11:45 AM	12:15 PM	30	200	100 2651.7	699	4.8	2.6	124.8		2651.7	
4	12:15 PM	12:45 PM	30	300	100 2907.6	963	10.1	5.3	254.4		2907.6	
5	12:45 PM	1:15 PM	30	500	200 3298.2	1345	20.8	10.7	513.6			3298.2
6	1:15 PM	1:45 PM	30	700	200 3623.1	1690	36.7	15.9	763.2			3623.1
7	1:45 PM	2:15 PM	30	900	200 3843.6	1930	56.1	19.4	931.2			3843.6
8	2:15 PM	2:45 PM	30	0	-900 3494.9	1533	56.1	0	0			

2.5350 2146.3
1.3635 2633.85

int point: 416.1758 BPD
3201.306 PSIA



Sundown Energy Reeves Queen # 1
Step Rate Test 06-17-2015



Step Rate Test



Cardinal Surveys Company

6/18/2015

**Intercept @ 1001.8 BPD
3424.4 BHPSIA,
1435 Surf PSIA**

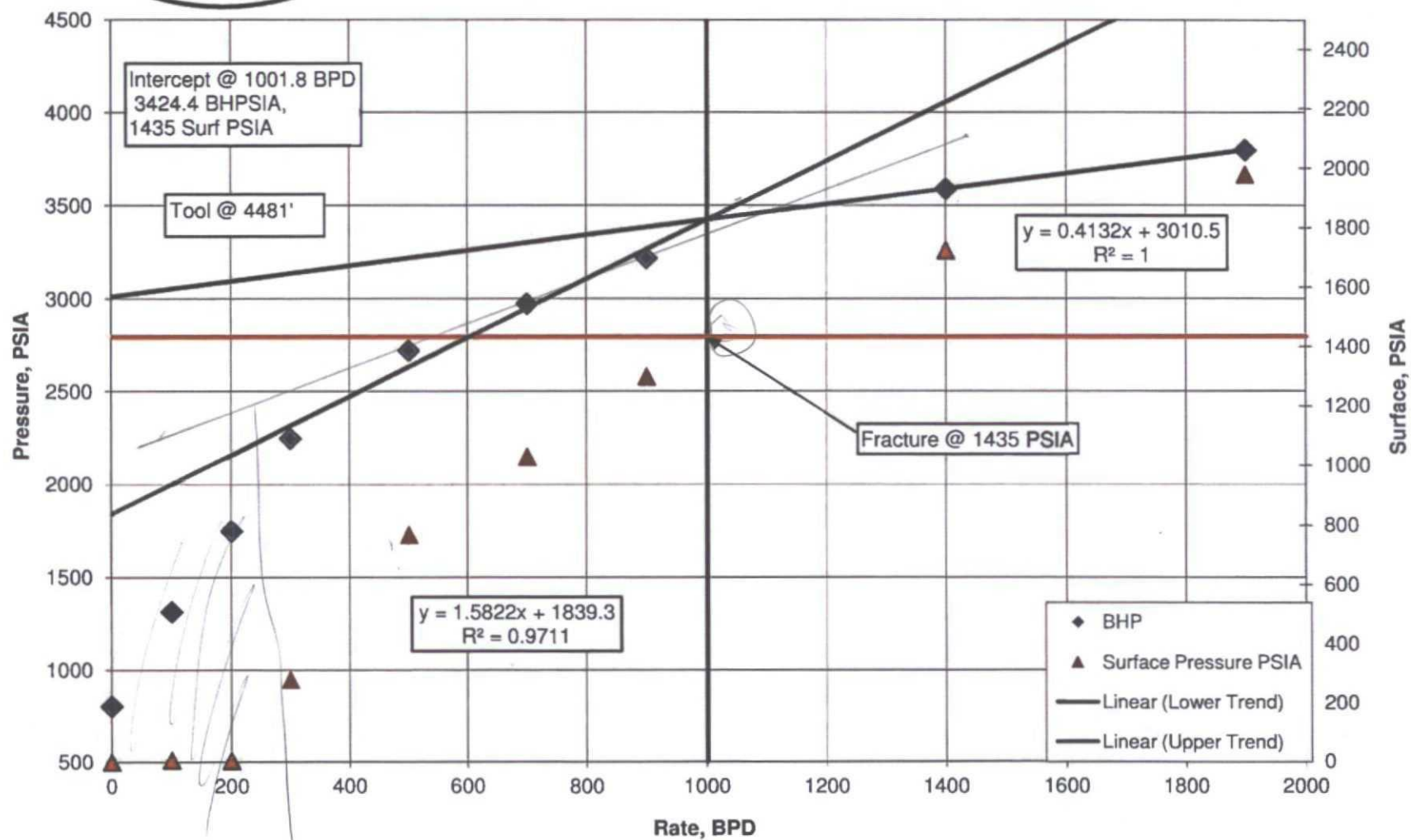
**Sundown Energy
Reeves Queen # 2
N/A
Lea, County, New Mexico
SC File # 22231
Tool # 204**

**Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ Tool @ 4481'**

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



Sundown Energy Reeves Queen # 2
Step Rate Test 6/17/2015



p2

Step Rate Test

Sundown Energy
Reeves Queen # 2

N/A

Lea, County, New Mexico



	S Time	E Time	D Time Min	Last Rate BPD	Step 1. Pressure BPD	Pressure PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Avg From Raw Data	Lower Trend	Upper Trend
1	7:30 AM	8:15 AM	45	0	0	803.4	0	0	0	0			
2	8:15 AM	8:45 AM	30	100	100	1314.4	6	2	2	96			
3	8:45 AM	9:15 AM	30	200	100	1747.9	3.6	3.7	1.7	81.6			
4	9:15 AM	9:45 AM	30	300	100	2247.1	280	8	4.3	206.4		2247.1	
5	9:45 AM	10:15 AM	30	500	200	2718.8	767	19.6	11.6	556.8		2718.8	
6	10:15 AM	10:45 AM	30	700	200	2970.8	1030	34	14.4	691.2		2970.8	
7	10:45 AM	11:15 AM	30	900	200	3217.9	1300	53.4	19.4	931.2		3217.9	
8	11:15 AM	11:45 AM	30	1400	500	3589	1724	82.7	29.3	1406.4			3589
9	11:45 AM	12:15 PM	30	1900	500	3795.6	1978	121.7	39	1872			3795.6
10	12:15 PM	12:30 PM	15	0	-1900	2349.1	383	121.7	0	0			

1.5822 1839.33

0.4132 3010.52

int point: 1001.873 BPD
3424.494 PSIA



Sundown Energy Reeves Queen # 2
Step Rate Test 6/17/2015

