

412 PT&W

DATE IN 3,23,12	SUSPENSE	ENGINEER TW	LOGGED IN 3,23,12	TYPE IPI	APP NO. 1708359483
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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



Stephens J
19958

3W all

ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

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

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

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

Check One Only for [B] or [C]

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

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

[D] Other: Specify _____

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

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

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

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

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

William M. Kincaid
Print or Type Name

Will. M. Kincaid
Signature

Petroleum Engineer
Title

3/14/2012
Date

mkincaid@sjoc.net
e-mail Address

152
158
184
RECEIVED OGD
2012 MAR 23 P 1:55
WFX-663
908-50 = 938
152-1726-50 =
158-956-50 = 906
184-1076-50 = 1076
Pool (46558)

Telephone (940) 723-2166

STEPHENS & JOHNSON OPERATING CO.

FAX (940) 723-8113

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS
76307-2249

Rec 31, 2/19/62
Core 2656
R - 2405
B 7829
R 7829

March 14, 2012

New Mexico Oil Conservation Division
Engineering Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Injection Pressure Increase
East Millman Unit
Eddy County, New Mexico

WFX - 732
WFX - 781
#152 - WFX - 663
WFX - 782
158 - IPI - 266

Gentlemen:

Stephens & Johnson Operating Co. is requesting an increase in the surface injection pressure for the following three wells located on our East Millman Unit in Eddy County, New Mexico as follows:

	Well No.	API Number	Current Maximum Surface Pressure (psi)	Formation Parting Pressure at Surface (psi)	Proposed Maximum Surface Pressure (psi)
A-22-195-28E	152	30-015-02287	900	988	938
G-11-11-11	158	30-015-02289	892	956	906
G-14-11-11	184	30-015-02243	900	1076	1026

✓
drilled with
Cable Tools 1950!

The injection pressure increases are necessary to optimize the waterflood operation within this Unit by maximizing the injection volumes into the subject wells.

The injection pressure increases are based on step rate tests conducted February 29 through March 2, 2012 by Cardinal Surveys Company. The results from the step rate tests are attached to this letter for your review.

Should you have any questions or require any additional information concerning this request, please do not hesitate to contact us.

Yours very truly,

STEPHENS & JOHNSON OPERATING CO.

A handwritten signature in cursive script, reading "William M. Kincaid". The signature is written in dark ink and is positioned above the printed name.

William M. Kincaid

WMK/np
Attachments

Step Rate Test



Cardinal Surveys Company

29-Feb-12

Stephens & Johnson Operating Co.

Well: E.M.U. No. 152

Field;

County: Eddy County, New Mexico

SC 60012

File No. 20698

Intercept @ 982.2 BPD, 1,726.2 BH PSIA & Surface Intercept @ 988 PSIA

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. 10213

Tool @ 1,850'

	Start	End	Rate
1	9:02 AM	9:15 AM	0 2,650'
2	9:15 AM	11:45 AM	0 Waiting on Pump Truck
3	11:45 AM	12:15 PM	100
4	12:15 PM	12:45 PM	200
5	12:45 PM	1:15 PM	300
6	1:15 PM	1:45 PM	500
7	1:45 PM	2:15 PM	700
8	2:15 PM	2:45 PM	900
9	2:45 PM	3:15 PM	1400
10	3:15 PM	3:45 PM	1900
11	3:45 PM	4:15 PM	2400
12	4:15 PM	4:30 PM	0 15 Min Fall Off
13			
14			
15			
16			
17			
18			

Step Rate Test
29-Feb-12

Stephens & Johnson Operating Co.
Well: E.M.U. No. 152
Field:
Location: Eddy County, New Mexico

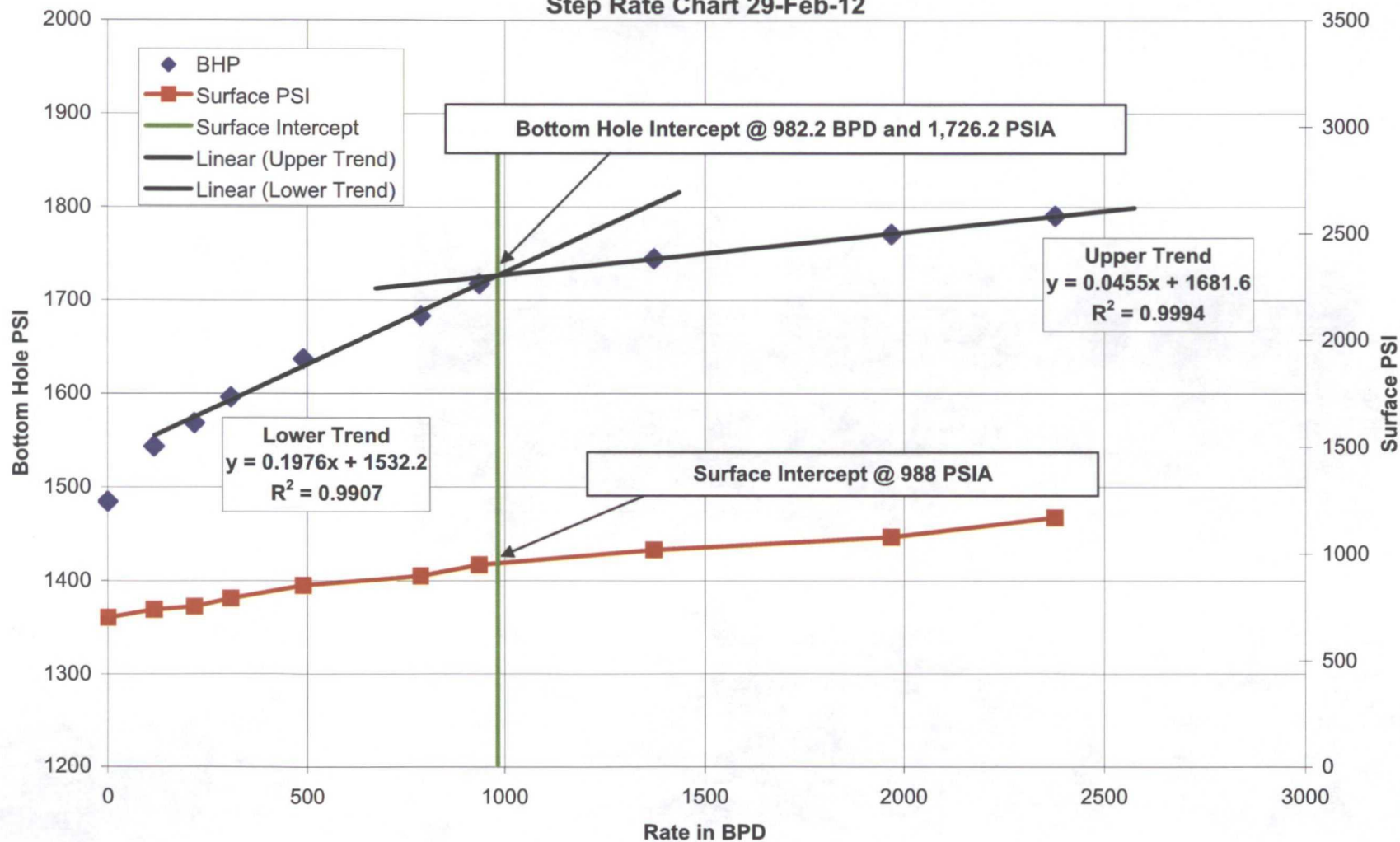


	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	9:02 AM	9:15 AM	13	0	0	1484.1	698.8	0	0	0		
2	11:45 AM	12:15 PM	30	100	100	1543.2	736.7	2.4	2.4	115		
3	12:15 PM	12:45 PM	30	200	100	1568.2	751.4	6.9	4.5	216	1568.2	
4	12:45 PM	1:15 PM	30	300	100	1596.1	789.3	13.3	6.4	307	1596.1	
5	1:15 PM	1:45 PM	30	500	200	1636.7	849.2	23.5	10.2	490	1636.7	
6	1:45 PM	2:15 PM	30	700	200	1682.9	893.6	39.9	16.4	787	1682.9	
7	2:15 PM	2:45 PM	30	900	200	1717.6	946.2	59.4	19.5	936	1717.6	
8	2:45 PM	3:15 PM	30	1400	500	1744.4	1016.1	88	28.6	1373		1744.4
9	3:15 PM	3:45 PM	30	1900	500	1770.6	1076.7	129	41	1968		1770.6
10	3:45 PM	4:15 PM	30	2400	500	1790.2	1168.4	178.5	49.5	2376		1790.2
11	4:15 PM	4:30 PM	15	0		1709.4	929.6	178.5	0	0		
12												
13												
14												
15												
16												

0.1976 1532.2
0.0455 1681.6
intersect 982.248521 BPD
BHP PSI 1726.29231 PSIA

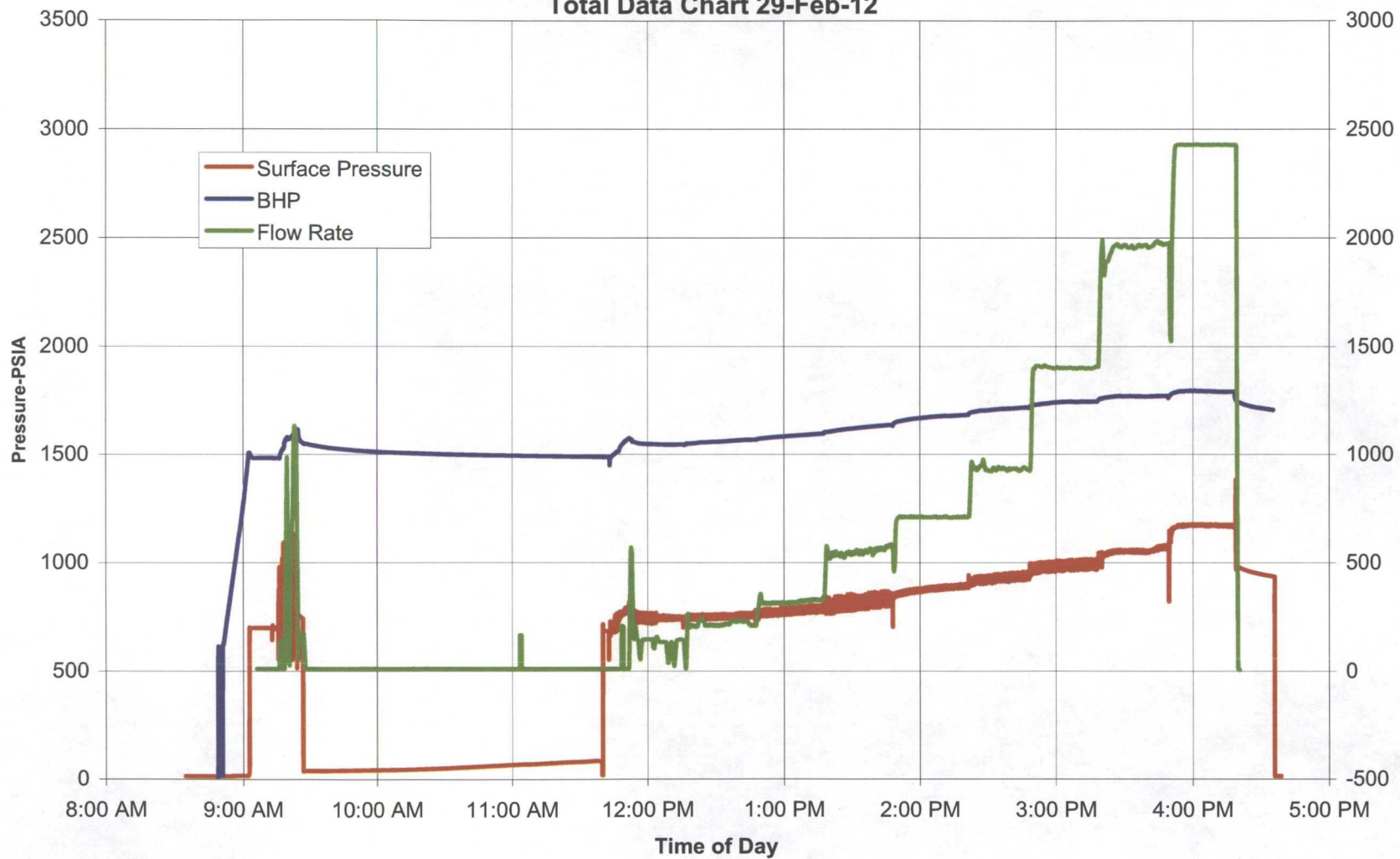


Stephens & Johnson Operating Co.
E.M.U. No. 152
Step Rate Chart 29-Feb-12





Stephens & Johnson Operating Co.
E.M.U. No. 152
Total Data Chart 29-Feb-12



Step Rate Test



Cardinal Surveys Company

1-Mar-12

Stephens & Johnston Operating Co.

Well: E.M.U. 158

Field;

County: Eddy County, New Mexico

SC60013

File No. 20699

Intercept @ 1,118.8 BPD, 1,740.1 BH PSIA & Surface Intercept @ 956 PSIA

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. 10213

Tool @ 1,950'

	Start	End	Rate	
1	7:49 AM	8:15 AM	0	1,950
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	12:45 PM	2400	
11	12:45 PM	1:00 PM	0 15 Min Fall Off	
12				
13				
14				
15				
16				
17				
18				

Step Rate Test
1-Mar-12

Stephens & Johnston Operating Co.
Well: E.M.U. 158
Field:
Location: Eddy County, New Mexico

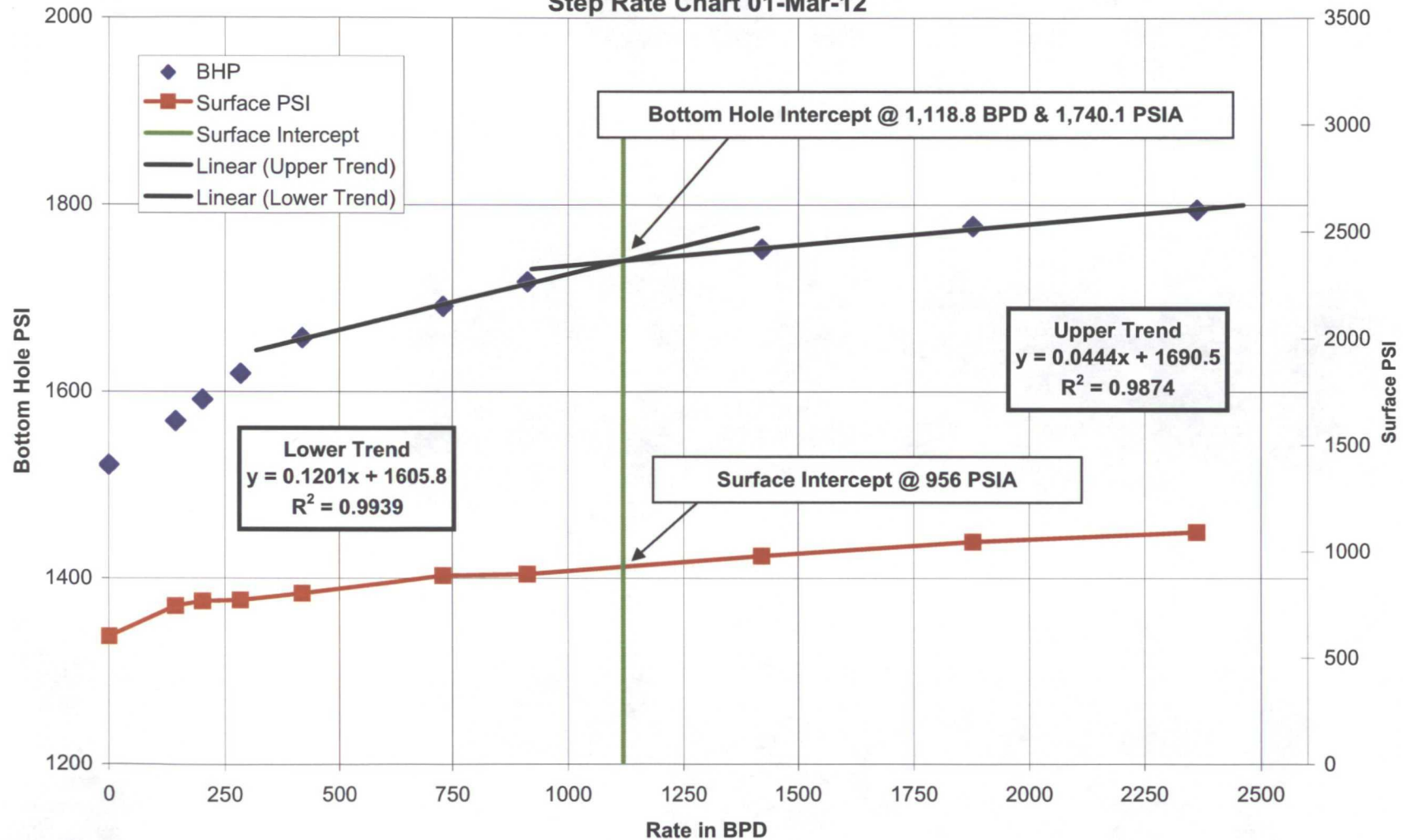


	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	7:49 AM	8:15 AM	26	0	0	1521.4	600.6	0	0	0		
2	8:15 AM	8:45 AM	30	100	100	1568.2	743	3	3	144		
3	8:45 AM	9:15 AM	30	200	100	1591.3	764.6	7.2	4.2	202		
4	9:15 AM	9:45 AM	30	300	100	1618.9	769.8	13.1	5.9	283		
5	9:45 AM	10:15 AM	30	500	200	1657	801.9	21.8	8.7	418	1657	
6	10:15 AM	10:45 AM	30	700	200	1690.8	884.2	37	15.2	730	1690.8	
7	10:45 AM	11:15 AM	30	900	200	1717.1	892.1	56	19	912	1717.1	
8	11:15 AM	11:45 AM	30	1400	500	1752.2	977.8	85.6	29.6	1421		1752.2
9	11:45 AM	12:15 PM	30	1900	500	1776.6	1045.1	124.7	39.1	1877		1776.6
10	12:15 PM	12:45 PM	30	2400	500	1794.1	1090.8	173.9	49.2	2362		1794.1
11	12:45 PM	1:00 PM	15	0	0	1765.1	944.8	173.9	0	0		
12												
13												
14												
15												
16												

0.1201 1605.8
0.0444 1690.5
intersect 1118.89036 BPD
BHP PSI 1740.17873 PSIA

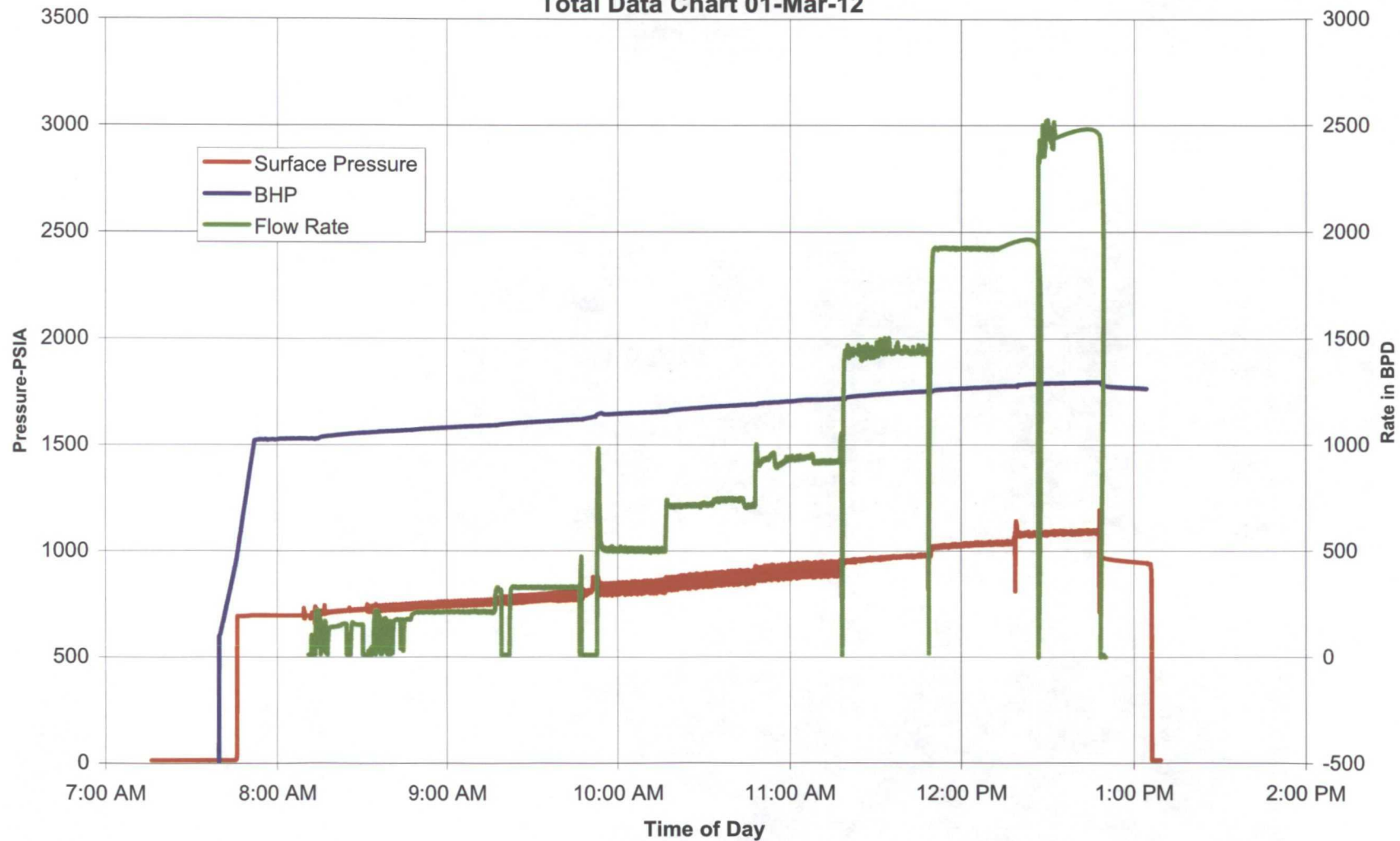


Stephens & Johnson Operating Co
E.M.U. No. 158
Step Rate Chart 01-Mar-12





Stephens & Johnson Operating Co
E.M.U. No. 158
Total Data Chart 01-Mar-12



Step Rate Test



Cardinal Surveys Company

2-Mar-12

Stephens & Johnston Operating Co.

Well: E.M.U. No. 184

Field;

County: Eddy County, New Mexico

SC60013

File No. 20699

Intercept @ 1,058.8 BPD, 1,837.6 BH PSIA & Surface Intercept @ 1,076 PSIA

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. 10213

Tool @ 1,850'

	Start	End	Rate
1	7:29 AM	8:15 AM	0 1,850'
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	12:34 PM	2400
11	12:45 PM	1:00 PM	0 15 Min. Fall Off
12			
13			
14			
15			
16			
17			
18			

Step Rate Test
2-Mar-12

Stephens & Johnston Operating Co.
Well: E.M.U. No. 184
Field:
Location: Eddy County, New Mexico

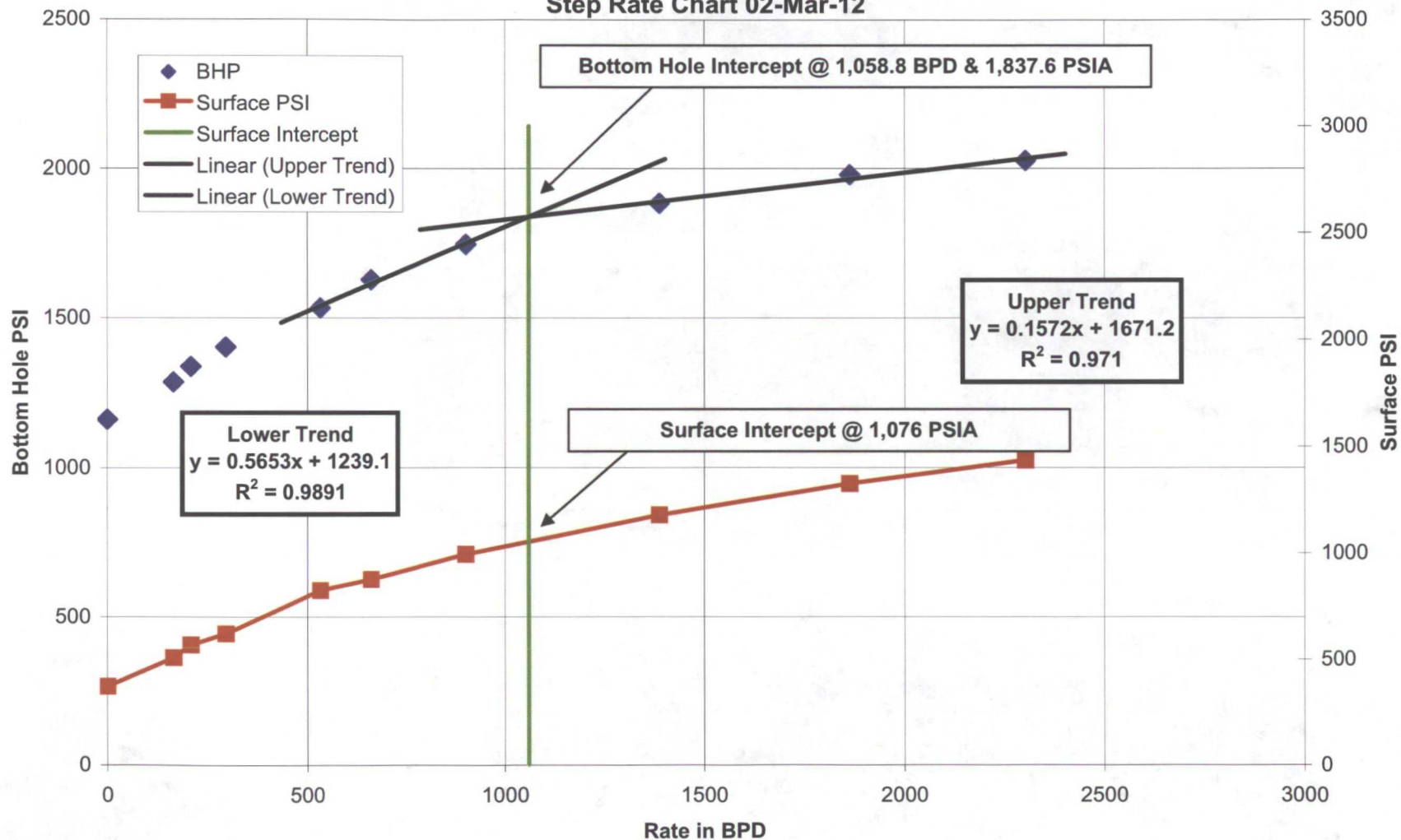


	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	7:49 AM	8:15 AM	26	0	0	1160.4	369.2	0	0	0		
2	8:15 AM	8:45 AM	30	100	100	1285.4	505.4	3.4	3.4	163		
3	8:45 AM	9:15 AM	30	200	100	1336.7	566	7.7	4.3	206		
4	9:15 AM	9:45 AM	30	300	100	1401.3	619.1	13.8	6.1	293		
5	9:45 AM	10:15 AM	30	500	200	1532.1	823	24.9	11.1	533	1532.1	
6	10:15 AM	10:45 AM	30	700	200	1626.2	874.3	38.7	13.8	662	1626.2	
7	10:45 AM	11:15 AM	30	900	200	1744.8	991.6	57.5	18.8	902	1744.8	
8	11:15 AM	11:45 AM	30	1400	500	1882.4	1176.4	86.4	28.9	1387		1882.4
9	11:45 AM	12:15 PM	30	1900	500	1978.4	1324.3	125.2	38.8	1862		1978.4
10	12:15 PM	12:34 PM	19	2400	500	2026	1434	173.2	48	2304		2026
11	12:45 PM	1:00 PM	15	0	0	1765.1	944.8	173.9	0.7	34		
12												
13	Ran out of water on Step No. 10.											
14												
15												
16												

	0.5653	1239.1
	0.1572	1671.2
intersect	1058.80912	BPD
BHP PSI	1837.64479	PSIA



Stephens & Johnson Operating Co
E.M.U. No. 184
Step Rate Chart 02-Mar-12





Stephens & Johnson Operating Co
E.M.U. No. 184
Total Data Chart 02-Mar-12

