

Submit 3 Copies To Appropriate District Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 88210

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources

Form C-103

May 27, 2004

RECEIVED

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

JUL 9 2008

HOBBS OCD

WELL API NO.
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name WTYSR Unit Wells: 443,641,912,913,921, 924,941,945
8. Well Number
9. OGRID Number 147179
10. Pool name or Wildcat Teas (Yates-Seven Rivers), West

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other Injection Wells

2. Name of Operator
Chesapeake Operating, Inc. ✓

3. Address of Operator P.O. Box 18496
Oklahoma City, OK 73154-0496

4. Well Location
Unit Letter _____ : _____ feet from the _____ line and _____ feet from the _____ line
Section 4 & 9 Township 20S Range 33E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: Injection Pressure Increase ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Chesapeake Operating, Inc. respectfully requests to increase the injection pressure on eight wells in the West Teas (Yates-Seven Rivers) Waterflood Unit Area.

For your review, please find the attached application letter along with step rates tests performed for each well. Copies of this application have been submitted to the Hobbs New Mexico Oil Conservation Division office.

WEST TEAS YATES SEVEN RIVERS UNIT No. 443 3002535976 I-4-20S-33E 1855 FSL & 660 FEL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 641 3002533144 A-4-20S-33E 330 FNL & 330 FEL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 912 3002529971 E-9-20S-33E 1980 FNL & 660 FWL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 913 3002529972 L-9-20S-33E 1980 FSL & 660 FWL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 921 3002531896 C-9-20S-33E 330 FNL & 2310 FWL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 924 3002536073 F-9-20S-33E 2560 FNL & 2210 FWL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 941 3002532217 A-9-20S-33E 330 FNL & 990 FEL ✓
WEST TEAS YATES SEVEN RIVERS UNIT No. 945 3002536079 H-9-20S-33E 2612 FNL & 330 FEL ✓

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Doug Rubick TITLE Field Engineer DATE 07/08/2008

Type or print name Doug Rubick
For State Use Only

E-mail address: doug.rubick@chk.com

Telephone No. (575)391-1462

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE JUL 17 2008

Conditions of Approval (if any): need approval of Santa Fe Office! CW

June 27, 2008

Will Jones
NMOCD
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Jones,

Chesapeake Energy respectfully requests to increase the injection pressure on eight wells in the West Teas Unit (WTU) waterflood. This waterflood has been active since 2003 and step rate tests have not been performed since 2004. Please see the table below for a summary of the current pressure limitations for the injection wells at the WTU waterflood.

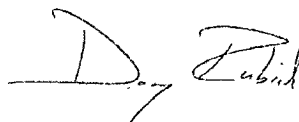
Well	API	Inj Press Limit	Order	Order Date	Comments
WTU 433	3002532032	968	IPI-244	10/19/2004	Division Order for increased injection pressure after SRT.
WTU 443	3002535976	831	WFX-791	7/24/2003	Administrative Order based on 0.2 psi/ft
WTU 641	3002533144	632	WFX-791	7/24/2003	Administrative Order based on 0.2 psi/ft
WTU 912	3002529971	1,200	IPI-244	10/19/2004	Division Order for increased injection pressure after SRT.
WTU 913	3002529972	903	IPI-244	10/19/2004	Division Order for increased injection pressure after SRT.
WTU 921	3002531896	998	IPI-244	10/19/2004	Division Order for increased injection pressure after SRT.
WTU 924	3002536073	1,197	IPI-244	10/19/2004	Division Order for increased injection pressure after SRT.
WTU 941	3002532217	615	WFX-791	7/24/2003	Administrative Order based on 0.2 psi/ft. The SRT for this well was inconclusive from IPI-244 and increase request denied.
WTU 945	3002536079	1,200	IPI-244	10/19/2004	Division Order for increased injection pressure after SRT.

Step rate tests were performed on all nine of the injectors between May 22nd and June 4th, 2008. Eight of the nine test results indicate there is room for an increase in maximum injection pressure. Results from each step rate test are attached and summarized in the table below.

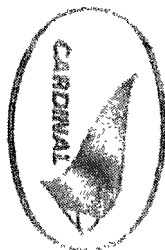
Well	API	Fracture Pressure	Requested Inj Press Limit	Date SRT Ran
WTU 443	3002535976	1,520	1,470	5/29/2008
WTU 641	3002533144	1,854	1,804	6/4/2008
WTU 912	3002529971	1,802	1,752	6/2/2008
WTU 913	3002529972	1,802	1,752	6/3/2008
WTU 921	3002531896	1,572	1,522	5/28/2008
WTU 924	3002536073	1,720	1,670	5/27/2008
WTU 941	3002532217	1,360	1,310	5/23/2008
WTU 945	3002536079	1,845	1,795	5/22/2008

Should you require further information or have any questions, please call Doug Rubick at 505-391-1462.

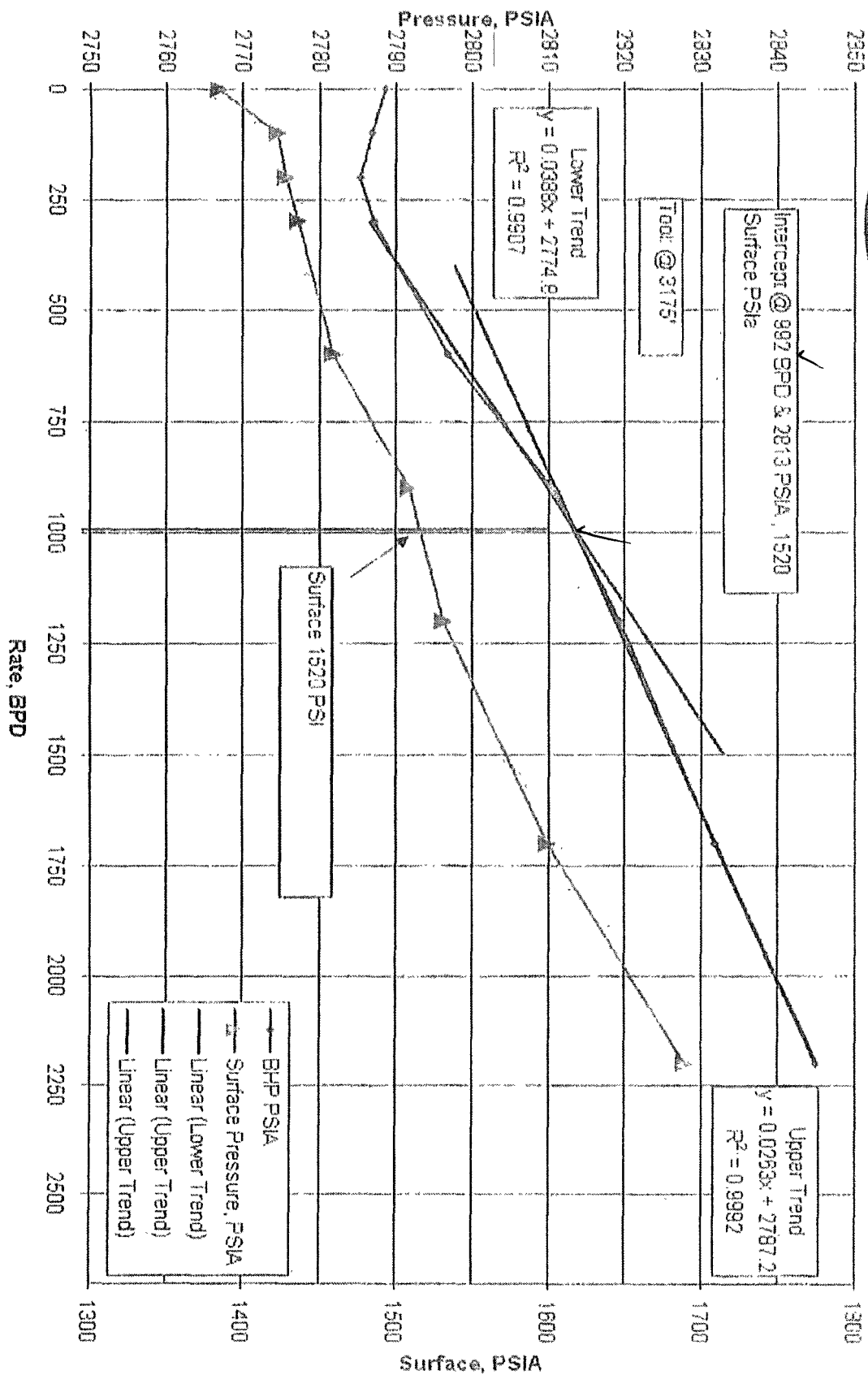
Sincerely,



Doug Rubick
Field Engineer



Chesapeake Energy Corp. WTL # 443
Step Rate Test 05-29-2008



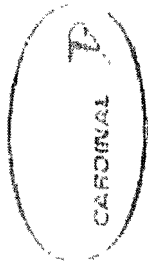
Step Rate Test

Onsopake Energy

WTU #440

Field:

Lee County, NM

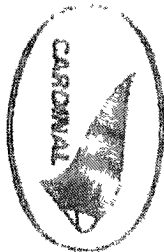


	S Time	E Time	D Time	Last Rate	Step	E H. Pressure	PSIA	Cum	Delta	Avg	Lower	Upper
1	8:31 AM	9:45 AM	14	0	0	2788.9	1384	0	0	0		
2	9:45 AM	9:45 AM	90	100	100	2788.9	1421.9	7.9	7.9	175		
3	9:45 AM	10:45 AM	90	200	100	2785.3	1426.3	15.3	9	215		
4	10:45 AM	11:45 AM	90	300	100	2787.1	1435.4	29.4	19.1	319	2787.1	
5	11:45 AM	12:45 PM	90	300	300	2795.6	1456.8	54.4	24.8	595	2795.6	
6	12:45 PM	1:45 PM	90	300	300	2810.4	1509.2	49	-11.4	-274	2810.4	2810.4
7	1:45 PM	2:45 PM	90	1200	300	2819.3	1531.2	142.3	98.3	2983		2819.3
8	2:45 PM	3:45 PM	90	1700	500	2831.9	1599.3	214.6	72.3	1735		2831.9
9	3:45 PM	4:45 PM	90	2200	500	2844.9	1639.9	306.2	91.6	2196		2844.9
10	4:45 PM	5:45 PM	60	2700								

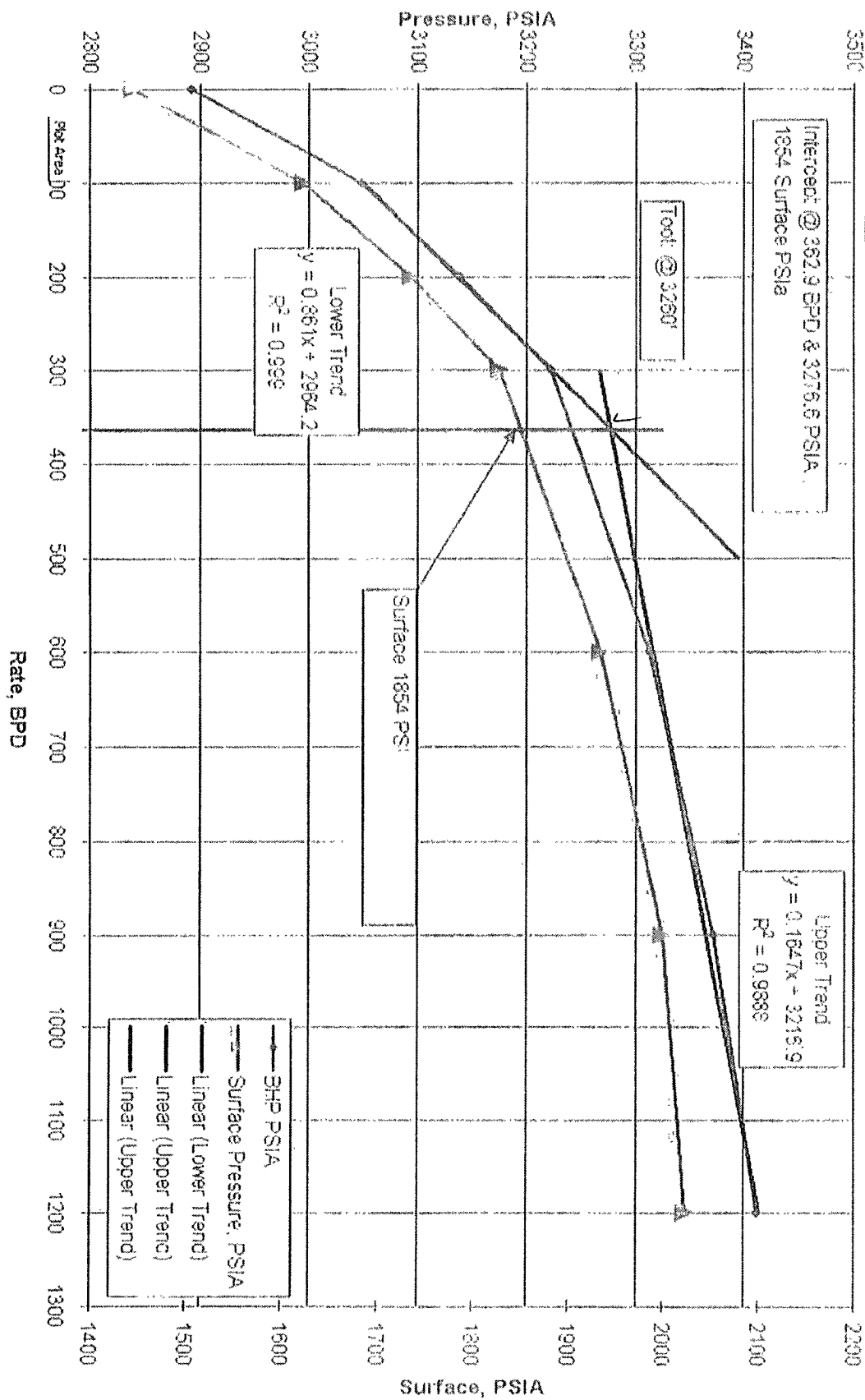
0.0386 2774.9
0.0283 2787.2

0.02 point

992 SPD
2810.2956 Psa



Chesapeake Energy Corp. WTL# 641
Step Rate Test 06-04-2008



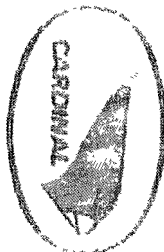
Step Rate Test

Chesapeake Energy
WTL # 641
Field: West Texas
Lea County, NM

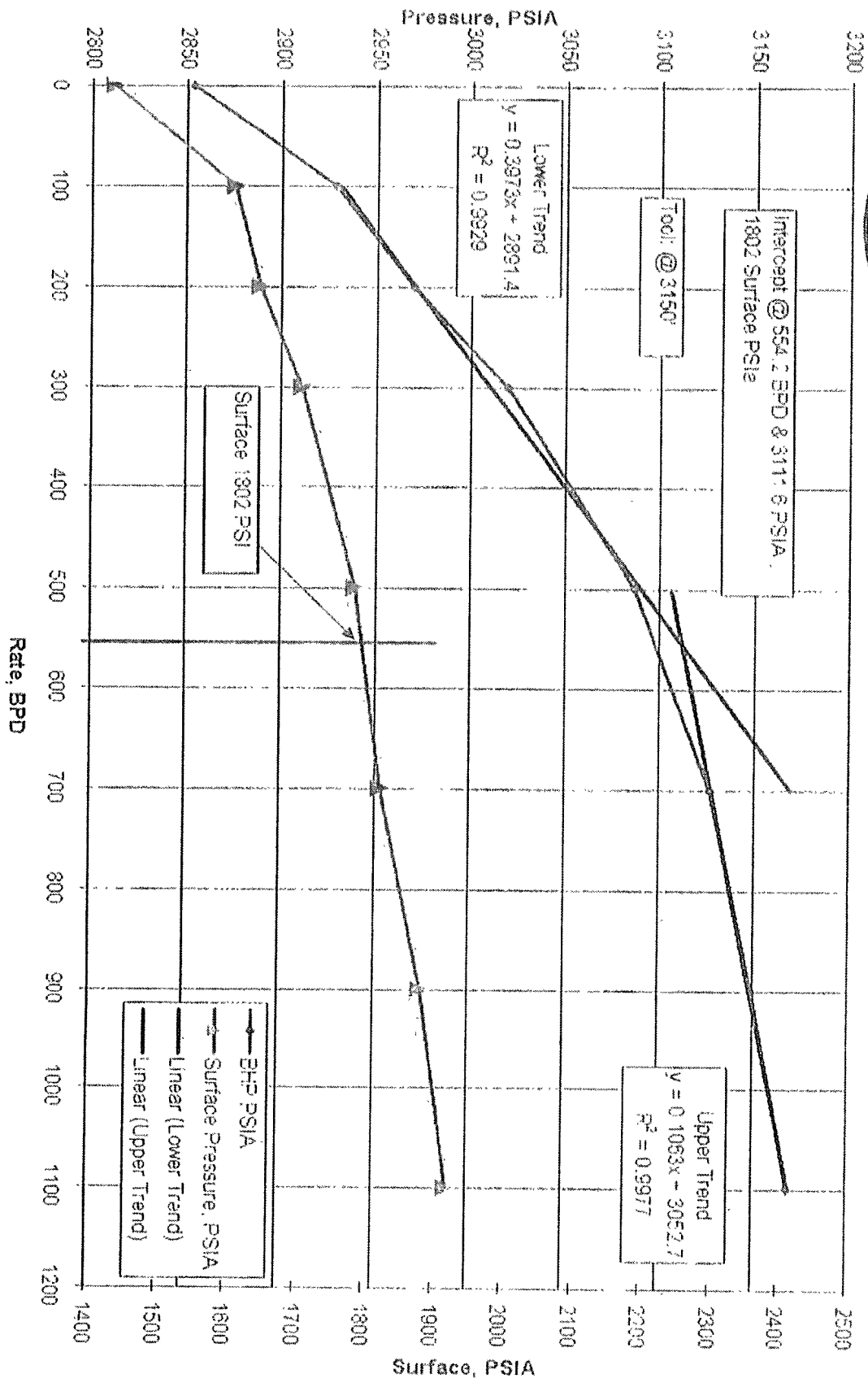


	S Time	E Time	D Time		Last Rate	Step S. H.		Pressure		Surf		Cum	Delta		Avg	Lower		Upper	
			Min	SPT		EPD	PSIA	PSIA	3BL	3BL	3BL		3BL	3BL		Trend	Trend		
1	8:29 AM	8:45 AM	15	3	130	0	2891.2	1444.5	0	6.1	0	0	6.1	146	3048.3				
2	8:45 AM	9:05 AM	50	200	100	100	3048.3	1736.2	15	8.9	21.4	15	8.9	21.4	3133.5				
3	9:05 AM	9:45 AM	50	300	100	100	3221	1826.6	26.4	13.4	32.2	15	13.4	32.2	3221				
4	10:45 AM	11:45 AM	50	600	300	300	3212.7	1864.1	51.6	23.2	57.7	36	23.2	57.7	3312.7				
5	11:45 AM	12:45 PM	50	900	300	300	3371.2	1893.4	85	37.4	89.8	85	37.4	89.8	3371.2				
6	1:45 PM	2:45 PM	50	1200	300	300	3411.5	2022.4	123	50	1200	123	50	1200	3411.5				
7	2:45 PM	3:00 PM	15	0	1200	0	3324	1740	138	0	0	138	0	0	0				

0.861 2984.2
0.1647 3218.9
int point 362.91828 BPD
3276.5728 psia

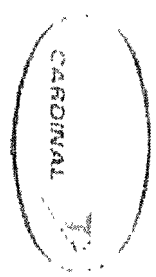


Chesapeake Energy Corp. WTU # 512
Step Rate Test 06-02-2008



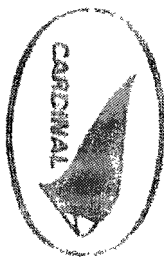
Step Rate Test

Chesapeake Energy,
WTU # 912
Field
Lea County, NM

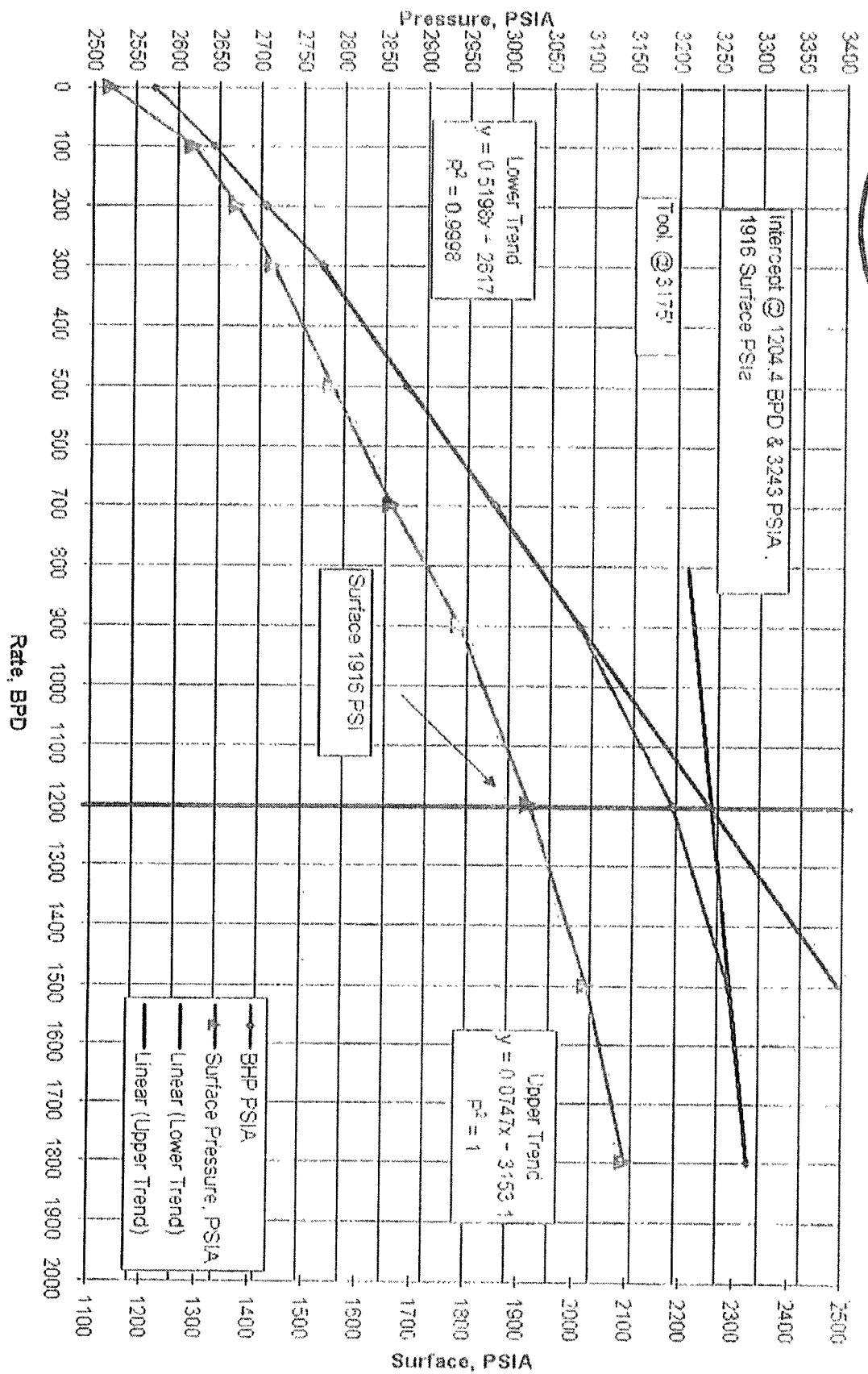


	Start	End	D Time	Last Rate	Step	S. H. Pressure	Surf	Cum	Delta	Avg	Lower	Upper
	Time	Time	Min	SPD	BPD	PSIA	PSIA	BBL	BBL	BPD	Trend	Trend
1	8:48 AM	9:00 AM	12	0	0	2833.6	1432.9	0	0	0		
2	9:00 AM	10:00 AM	60	100	100	2928	1607	3.5	9.5	204	2928	
3	10:00 AM	11:00 AM	60	200	100	2989.4	1542.5	17.4	8.3	214	2989.4	
4	11:00 AM	12:00 PM	60	300	100	3019.1	1704.1	30.3	12.9	310	3019.1	
5	12:00 PM	1:00 PM	60	500	200	3086.2	1732.5	52.3	22	528	3086.2	
6	1:00 PM	2:00 PM	60	700	200	3126.5	1821.1	61.2	26.9	564		3126.5
7	2:00 PM	3:00 PM	60	900	200	3149.5	1860.9	120.1	36.9	934		3149.5
8	3:00 PM	4:00 PM	60	1100	200	3189	1922.1	156.5	46.4	1090		3189
9	4:00 PM	5:00 PM	60	0	-1100	3125	1797	166.5	0	0		

0.3973 2381.4
0.1063 3052.7
init point: 534.2653 BPD
3111.6216 PSIA



Chesapeake Energy Corp. WTLU #913
Step Rate Test 06-03-2008



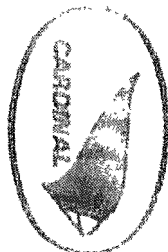
Step Rate Test

Chesapeake Energy
WTL# 513
Field:
Lea County, NM

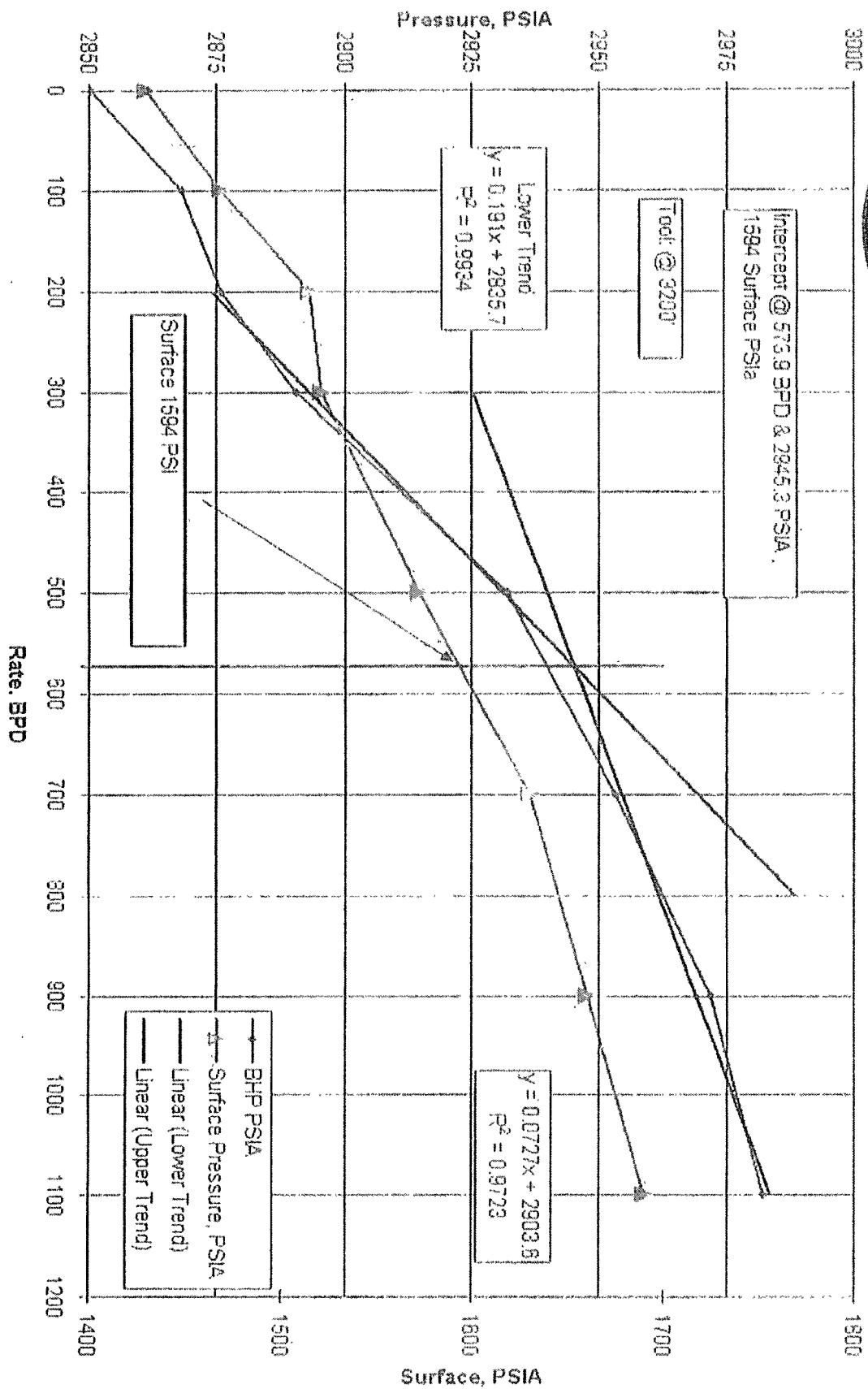


	S Time	E Time	C Time	Last Rate	Step S	H Pressure	Surf	Cum	Delta	Avg	Lower	Upper
			Min	BPD	EFD	PSIA	PSIA	BSL	BSL	BPD	Trend	Trend
1	8:51 AM	9:00 AM	9	0	0	2571.9	1101.4	0	0	0		
2	9:00 AM	10:00 AM	66	106	100	2643.1	1283	5.7	5.7	137		
3	10:00 AM	11:00 AM	90	200	100	2705	1366.6	14.7	9	216		
4	11:00 AM	12:00 PM	80	300	100	2773.6	1400.9	28	15.9	319	2773.6	
5	12:00 PM	1:00 PM	80	500	200	2874.6	1545.6	46.4	21.4	514	2874.6	
6	1:00 PM	2:00 PM	90	700	200	2983	1667.3	78.9	29.2	701	2983	
7	2:00 PM	3:00 PM	90	900	200	3084.2	1766.6	116.9	36	912	3084.2	
8	3:00 PM	4:00 PM	60	1200	300	3195.7	1918.6	168.5	51.9	1246		
9	4:00 PM	5:00 PM	60	1500	300	3265.1	2025.1	231.1	62.6	1502		3265.1
10	5:00 PM	6:00 PM	60	1800	300	3287.5	2098.1	308.5	177.4	1858		3287.5
11	6:00 PM	6:15 PM	18	0	-1300	3182	1813	308.5	0	0		

0.5186 2617
0.0747 3153.1
In point: 1204.4484 BPD
3243.0723 Psia

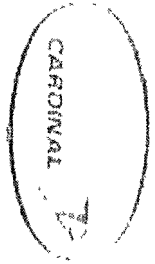


Chesapeake Energy Corp. WTU #921
Step Rate Test 05-28-2008



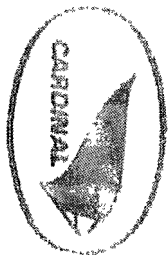
Step Rate Test

Chesapeake Energy
 Well #92
 Field:
 Lea County, NM

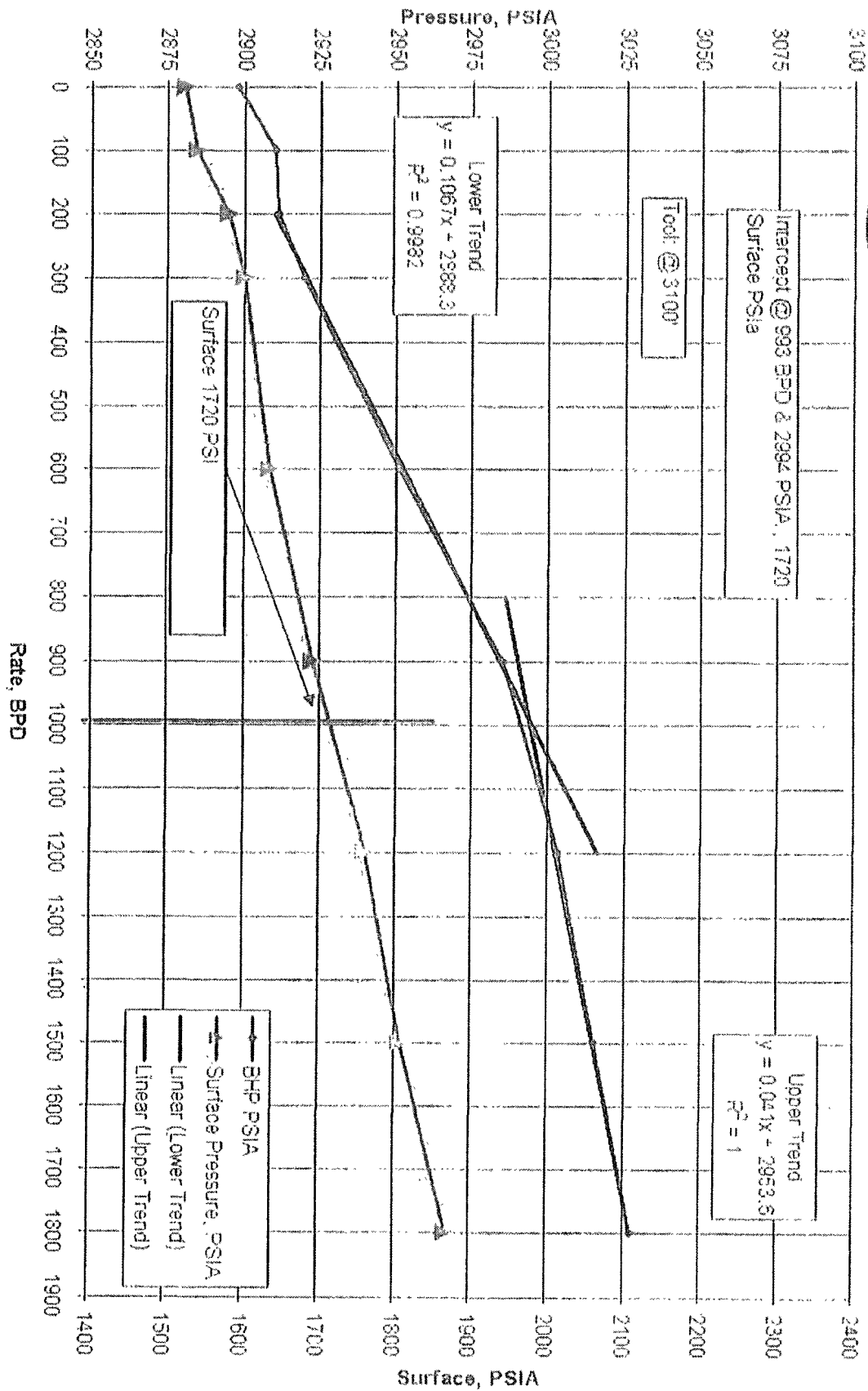


	S Time	E Time	O Time	Last Rate	Step S	H	Pressure	SLT	Cum	Delta	Avg	Lower	Upper
			Min	BPD	BPD		PSIA	PSIA	BBL	BBL	BPD	T-avg	T-avg
1	8:28 AM	8:30 AM	2	0	0		2850.4	1450	0	0	0		
2	8:30 AM	8:32 AM	60	100	100		2856.2	1466.5	6.6	6.6	155		
3	8:32 AM	10:30 AM	60	200	200		2875.7	1575	15.7	9.2	221	2875.7	
4	10:30 AM	11:30 AM	60	300	100		2890.6	1581.3	28.7	13	312	2890.6	
5	11:30 AM	12:30 PM	60	500	200		2932.1	1572.9	49.8	27.1	506	2932.1	
6	12:30 PM	1:30 PM	60	700	200		2953.1	1560.6	60.2	30.2	733	2953.1	
7	1:30 PM	2:30 PM	60	900	200		2971.9	1560	117.9	37.7	965	2971.9	
8	2:30 PM	3:30 PM	60	1100	200		2982.2	1569.6	185.6	47.6	1142	2982.2	
9	3:30 PM	3:45 PM	15	0	1100		2875	1496	185.6	0	0		

0-191 2935.7
 00727 2903.6
 Inpoint 573.9645 BPD
 2945.3272 Psia



Chesapeake Energy Corp. WTLU # 924
Step Rate Test 05-27-2008



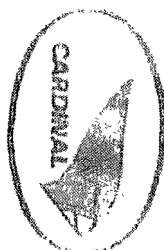
Spec Rate Test

Chesapeake Energy/
WYU #924
Field
Lea County, NM

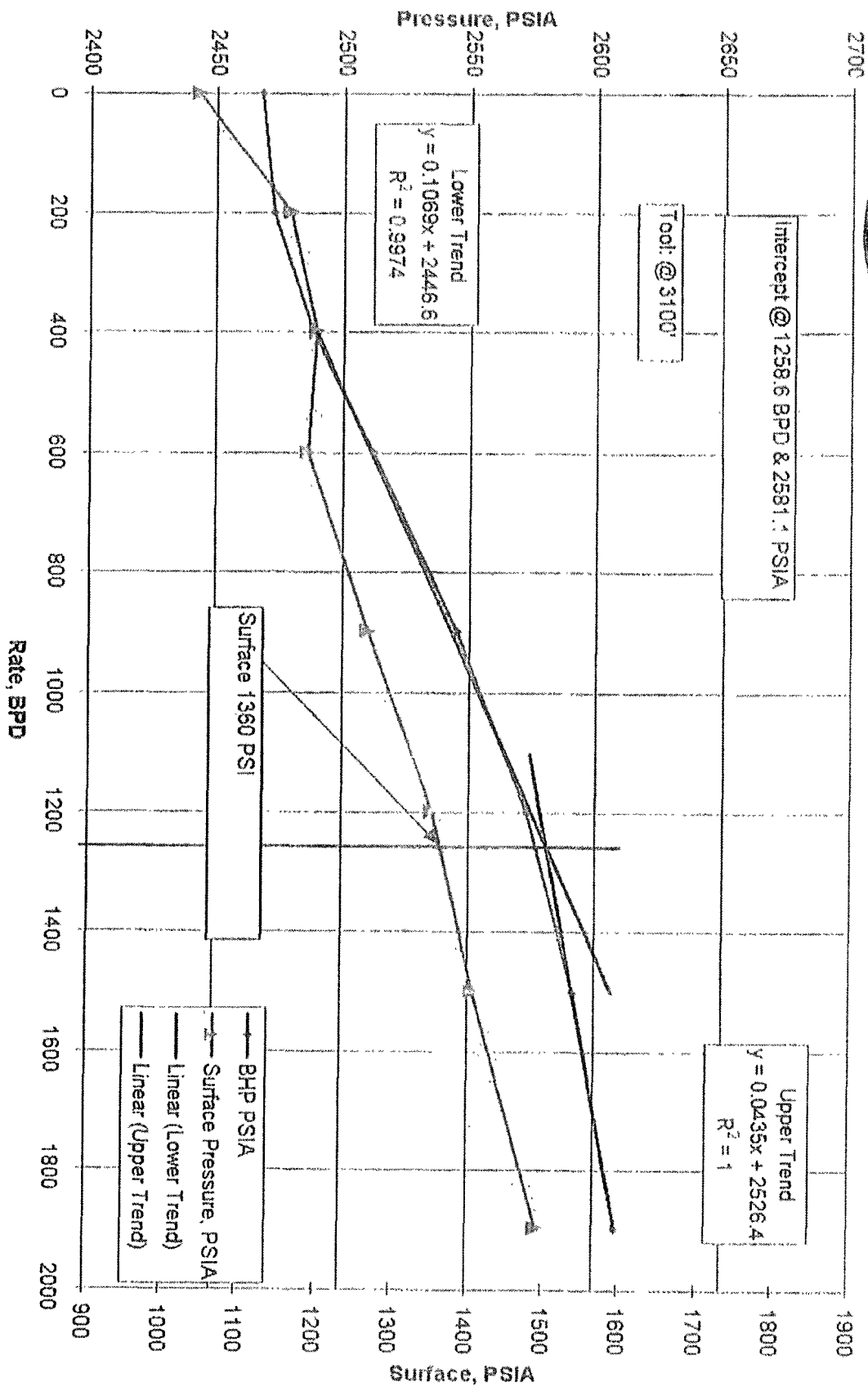


	S Time	E Time	D Time		Last Rate	Step R. f.	Pressure		Surf	Cum	Date	Avg.	Lower	Upper
			Min	BPC		BPD	PSIA	PSIA		GBL	BBL	SPD	Trend	Trend
1	8:00 AM	4:00 AM	60	0		0	2898.4	4522.4		0	0	0		
2	10:00 AM	11:00 AM	60	100		100	2910.3	4537.8		6.7	5.7	151		
3	11:00 AM	12:00 PM	60	200		100	2911	4579.4		15.5	8.3	211	2911	
4	12:00 PM	1:00 PM	60	300		190	2919.5	4601.1		26.6	13.1	314	2919.5	
5	1:00 PM	2:00 PM	60	600		300	2950.7	4641.3		54.5	25.7	517	2950.7	
6	2:00 PM	3:00 PM	60	900		300	2985.4	4661.1		93.2	33.5	934	2985.4	
7	3:00 PM	4:00 PM	60	1200		300	3003.7	4753.4		144.1	50.3	1222		
8	4:00 PM	5:00 PM	60	1500		300	3015.1	4807.2		208.7	64.5	1550		
9	5:00 PM	6:00 PM	60	1800		300	3027.4	4869.7		265.2	75.5	1835		3015.1
10	6:00 PM	6:15 PM	15	0		-1300	2957.2	4826.9		255.2	0	0		3027.4

0.1067 2898.3
0.041 2953.6
in point: 393.91172 SPD
2994.5504 PSIA

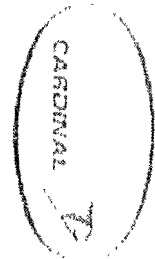


Chesapeake Energy Corp. WTU # 941
Step Rate Test 05-23-2008



Step Rate Test

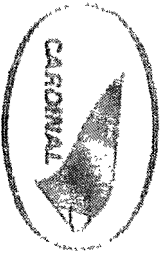
Chesapeake Energy
WVU # 341
Field:
Lea County, NM



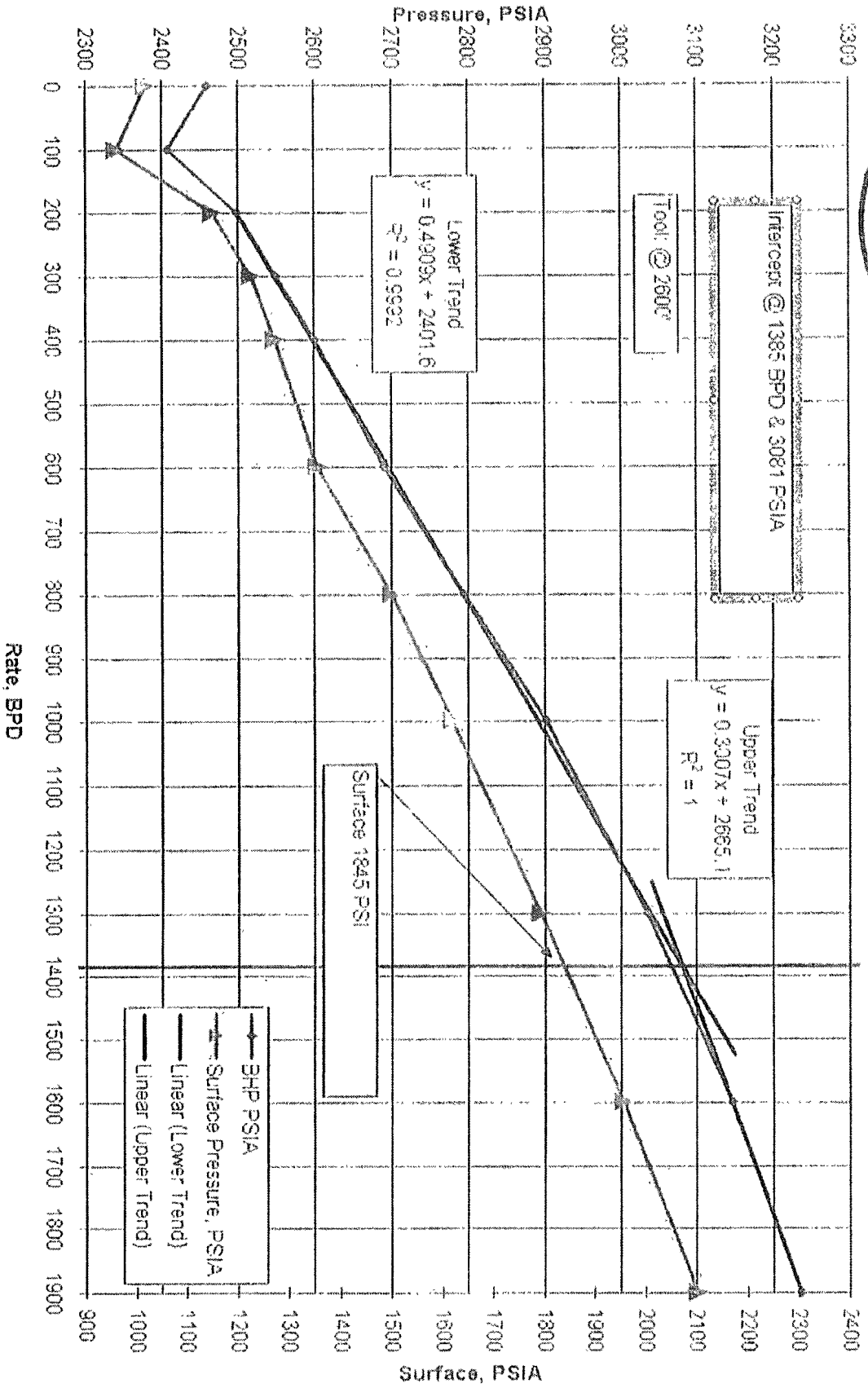
	S Time	E Time	D Time	Last Rate	Step B. H. Pressure	Surf	Cum	Delta	Avg.	Lower	Upper
			Min	SPD	SPD	PSIA	BSL	BSL	SPD	Trend	Trend
1	10:23 AM	10:30 AM	7	0	0	2468	1044.7	0	0		
2	10:30 AM	11:30 AM	60	200	200	2472.5	1162.6	6.8	205	2467.8	
3	11:30 AM	12:30 PM	60	400	200	2487.8	1196.7	25.9	396	2511.6	
4	12:30 PM	1:30 PM	60	600	200	2611.8	1186.7	51.7	619	2545	
5	1:30 PM	2:30 PM	60	800	300	2645	1265.9	82.2	900	2573.2	
6	2:30 PM	3:30 PM	60	1200	300	2673.2	1352	140.6	1294		
7	3:30 PM	4:30 PM	60	1500	300	2691.7	1406.7	203.1	1500		2591.7
8	4:30 PM	5:30 PM	60	1800	400	2699.1	1493.5	264.9	1800		2609.1
9	5:30 PM	6:45 PM	15	0	1800	2675.2	1251.4	284.6	0		

0.1066 2446.5
0.0435 2526.4

int. vol. 1268.5751 SPD
2581.1524 - size

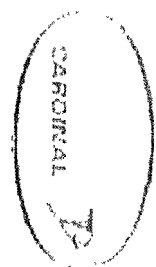


Chesapeake Energy Corp. WTU # 945
Step Rate Test 05-22-2008



Step Rate Test

Majors Operating
WTL#345
Field
Lee County, NM



	S Time	E Time	D Time	Last Rate	Step	E H. Pressure	Surf	Cum	Delta	Avg.	Lower	Upper
			Min	SPD	SPD	PSIA	PSIA	SBL	SBL	BPD	Terc	Trend
1	9:04 AM	9:30 AM	26	0	0	2469.5	1016.1	0	0	0		
2	9:30 AM	10:30 AM	60	100	100	2407.1	356.6	5.3	5.3	127	2499.2	
3	10:30 AM	11:30 AM	60	200	100	2499.2	1149.8	13.8	8.5	204	2549.8	
4	11:30 AM	12:30 PM	60	300	100	2549.2	1223.1	26.5	12.7	306	2599.4	
5	12:30 PM	1:30 PM	60	401	100	2599.4	1271.5	42.5	16	384	2639.5	
6	1:30 PM	2:30 PM	60	500	200	2685.8	1353.3	62.4	25.9	522	2734.1	
7	2:30 PM	3:30 PM	60	800	200	2794.1	1489.9	102	33.6	806	2902.5	
8	3:30 PM	4:30 PM	60	1000	200	2902.8	1519	144.6	42.0	1022	3034.5	
9	4:30 PM	5:30 PM	60	1301	300	3034.5	1794	204.5	59.9	1426		
10	5:30 PM	6:30 PM	60	1606	300	3143.2	1957.3	265.4	60.8	1462		
11	6:30 PM	7:30 PM	60	1900	300	3236.4	2102.7	346	60.6	1934		
12	7:30 PM	7:45 PM	15									

at point: 1385.3838 BPD
3081.6849 Psia
0.4909 2401.3
0.3007 2665.1