

DATE IN 6.13.11 SUSPENSE ENGINEER *TABN* LOGGED IN 6.13.11 TYPE IPT APP NO 1116454259

6.28.11

ABOVE THIS LINE FOR DIVISION USE ONLY

403 #2

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



XTO

Kutz Fed SWP #1

ADMINISTRATIVE APPLICATION CHECKLIST

30-045-34317

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 _____

SWD-1097

2011 JUN 13 P 1:33

RECEIVED OOD

1704 PSI

[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.

Derrick Lucas
Print or Type Name

Dick
Signature

Production Engineer
Title

6-9-11
Date

william-lucas@xtenergy.com
e-mail Address



June 9, 2011

Oil Conservation Division
1220 South St Francis Drive
Santa Fe, New Mexico 87505

Attn: Mr. Mark E. Fesmire

Re: Injection Pressure Increase
Kutz Federal SWD #1
Administrative Order SWD - 1097
Sec 6, T27 N, R10W, San Juan Co., NM
API# 30-045-34317

Dear Mr. Fesmire,

The results of the Step Rate Test for the Kutz Federal SWD #1 conducted on May 31st, 2011 are attached.

The injection rate vs. bottom hole pressure indicates that a bottom hole pressure of 3,140 psig is required to fracture the reservoir, which results in a surface treating pressure of 1,834 psig.

Based on the fracture pressure determined for this well, XTO requests that the approved injection pressure limit, which is currently 1,280 psig, be increased to 1,784 psig.

If you have any questions, please contact me at 505-333-3157.

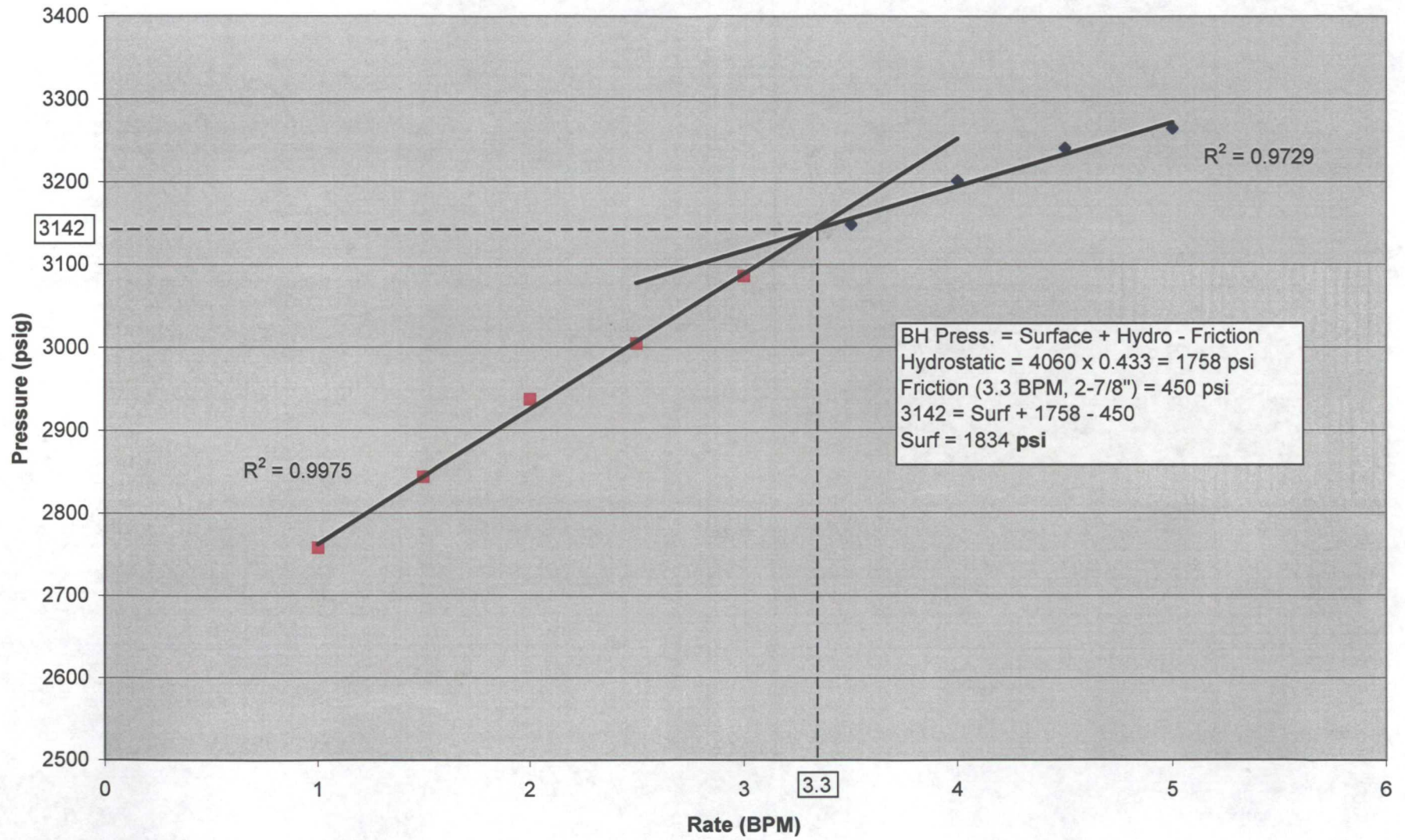
Sincerely,
XTO Energy

A handwritten signature in black ink, appearing to read 'Derick Lucas', written over the printed name.

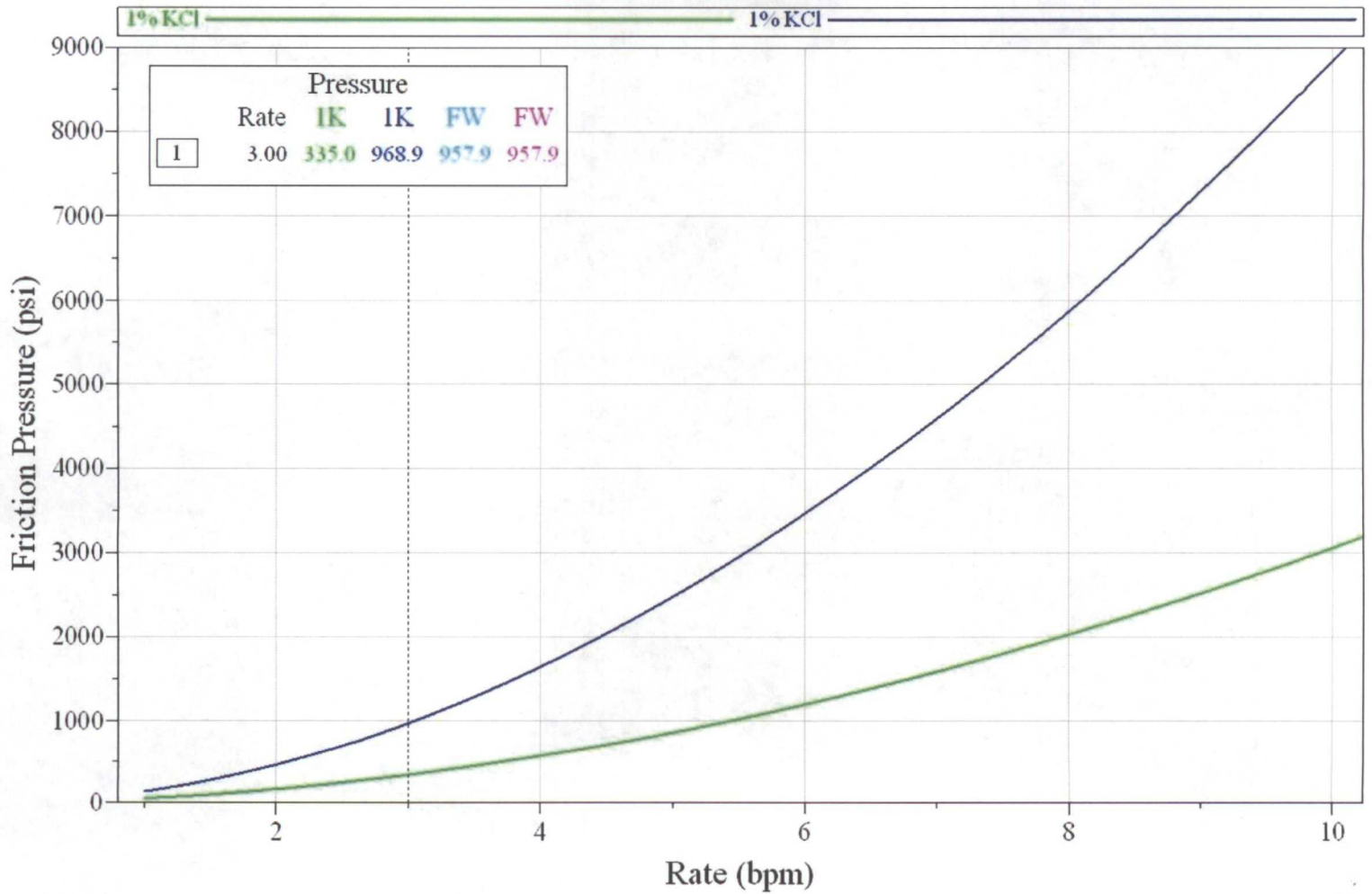
Derick Lucas
Production Engineer

cc Charlie Perrin

Final Step Rate Plot



Friction Pressure



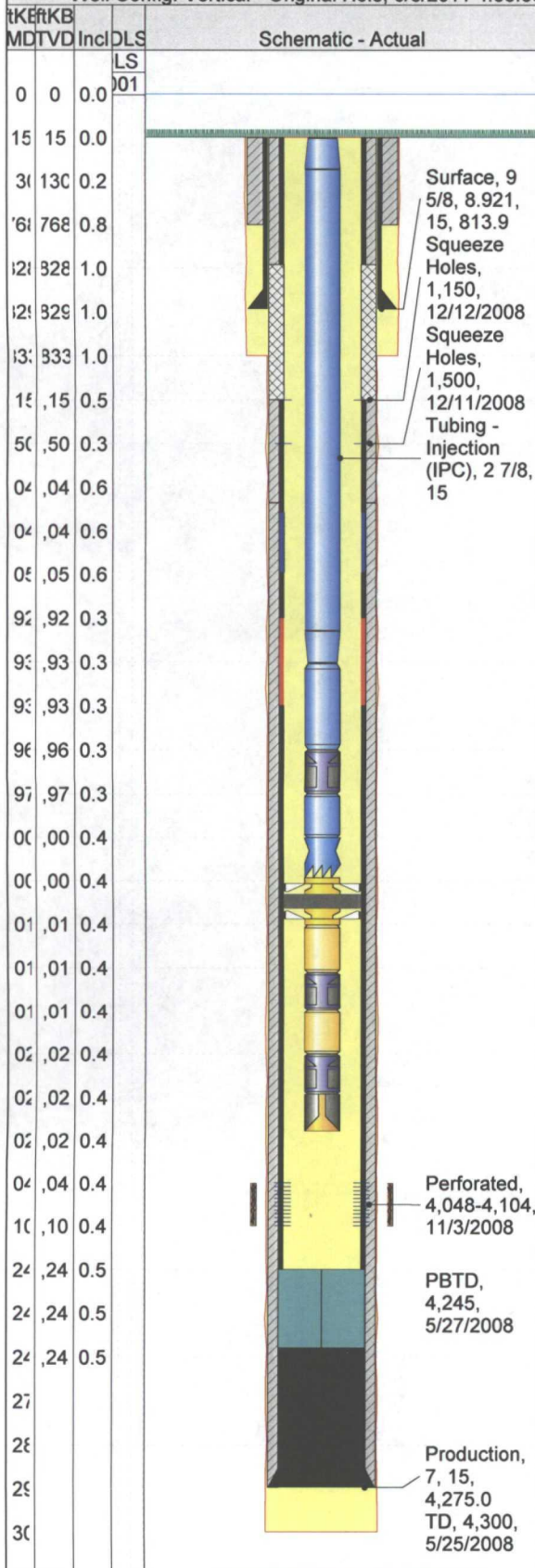


Downhole Well Bore Diagram

Well Name: Kutz Federal SWD 01

API/UWI 30045343170000	E/W Dist (ft) 4,740.8	E/W Ref FWL	N/S Dist (ft) 7,792.0	N/S Ref FNL	Location T27N-R10W-S06	Field Name Blanco Mesaverde	County San Juan	State New Mexico
Well Configuration Type Vertical	XTO ID B 701160	Orig KB Elev (ft) 5,807.00	Gr Elev (ft) 5,792.00	KB-Grd (ft) 15.00	Spud Date 5/18/2008	PBTD (All) (ftKB) Original Hole - 4245.0	Total Depth (ftKB) 4,300.0	Method Of Production SWD

Well Config: Vertical - Original Hole, 6/8/2011 4:53:55 PM



Producing Zones

Zone	Top (ftKB)	Btm (ftKB)
Mesaverde	4,048.0	4,104.0

Casing Strings

Casing Description	OD (in)	Wt (lbs/ft)	String Grade	Top Connection	Set Depth (ftKB)
Surface	9 5/8	36.00	J-55	9 5/8	829.0
Casing Description	OD (in)	Wt (lbs/ft)	String Grade	Top Connection	Set Depth (ftKB)
Production	7	23.00	J-55	LT&C	4,290.0
Item Description	OD (in)	Wt (lbs/ft)	Grade	Top (ftKB)	Bottom (ftKB)
Stage Tool	7	23.00	J-55	3,049.1	3,052.1

Cement

Description	Type	String
Surface Casing Cement	casing	Surface, 829.0ftKB
Comment		

Description	Type	String
Production Casing Cement	casing	Production, 4,290.0ftKB
Comment		

Lost Circulation While Circulating Between Stages.

Description	Type	String
Remedial Cement Squeeze	squeeze	Production, 4,290.0ftKB
Comment		

Ppd 17 bbls cmt thru sqz holes @ 1,500' sqzd 9 bbls behind pipe. Ppd 80.5 bbls cmt thru sqz holes @ 1,150'. Circd w/12 bbls cmt to surf.

Description	Type	String
Remedial Cement Squeeze	squeeze	Production, 4,290.0ftKB
Comment		

Spoted 15.8 bbls cmt above sqz holes @ 1,150'. TOH. Sqz 3 bbls cmt behind pipe.

Description	Type	String
Remedial Cement Squeeze	squeeze	Production, 4,290.0ftKB
Comment		

Ppd 17.2 bbls 15.6# cmt thru sqz holes @ 1,500' sqzd 15.2 bbls behind pipe.

Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Hole Diameter (in)	Phasing (")	Zone
12/12/2008	1,150.0	1,150.0	4.0	0.340	45	
12/11/2008	1,500.0	1,500.0	4.0	0.340	45	
11/3/2008	4,048.0	4,104.0	4.0	0.540	45	Mesaverde

Tubing Strings

Tubing Description	Run Date	Set Depth (ftKB)
Tubing - Injection (IPC)	4/14/2009	4,025.5

Tubing Components

Item Description	Jts	Model	OD (in)	Wt (lbs/ft)	Gra...	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
Tubing	119	T&C Non-...	2 7/8	6.40	L-...	8RD EUE	3,921.45	15.0	3,936.5
Tubing	1	T&C Non-...	2 7/8	6.40	L-...	8RD EUE	32.95	3,936.5	3,969.4
Baker BX Nipple	1		2 7/8			8RD EUE	1.13	3,969.4	3,970.5
Tubing	1	T&C Non-...	2 7/8	6.40	L-...	8RD EUE	33.08	3,970.5	4,003.6
Baker On-Off Tool	1		2 7/8			8RD EUE	1.83	4,003.6	4,005.4
Baker Sabre Hornet Packer	1		2 7/8			8RD EUE	5.17	4,005.4	4,010.6
Tubing Sub	1	T&C Upset	2 7/8	6.50	L-...	8RD EUE	6.27	4,010.6	4,016.9
Baker BX Nipple	1		2 7/8			8RD EUE	1.13	4,016.9	4,018.0
Tubing Sub	1	T&C Upset	2 7/8	6.50	L-...	8RD EUE	6.25	4,018.0	4,024.3
Baker R-Nipple	1		2 7/8			8RD EUE	0.93	4,024.3	4,025.2



Downhole Well Bore Diagram

Well Name: Kutz Federal SWD 01

API/UWI	E/W Dist (ft)	E/W Ref	N/S Dist (ft)	N/S Ref	Location	Field Name	County	State
30045343170000	4,740.8	FWL	7,792.0	FNL	T27N-R10W-S06	Blanco Mesaverde	San Juan	New Mexico
Well Configuration Type	XTO ID B	Orig KB Elev (ft)	Gr Elev (ft)	KB-Grd (ft)	Spud Date	PBTD (All) (ftKB)	Total Depth (ftKB)	Method Of Production
Vertical	701160	5,807.00	5,792.00	15.00	5/18/2008	Original Hole - 4245.0	4,300.0	SWD

Well Config: Vertical - Original Hole, 6/8/2011 4:53:55 PM

Tubing Components

Item Description	Jts	Model	OD (in)	Wt (lbs/...)	Gr...	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
Wireline Guide	1		2 7/8			8RD EUE	0.33	4,025.2	4,025.5

Rods

Rod Description	Run Date	String Length (ft)	Set Depth (ftKB)
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Rod Components

Item Description	Jts	Model	OD (in)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)
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Stimulations & Treatments

Frac Start D...	Top Perf (...)	Bottom Pe...	V (slurry) ...	Total Add ...	15 Min (psi)	ISIP (psi)	AIR (bbl/...	ATP (psi)
11/5/2008					768.0	936.0		

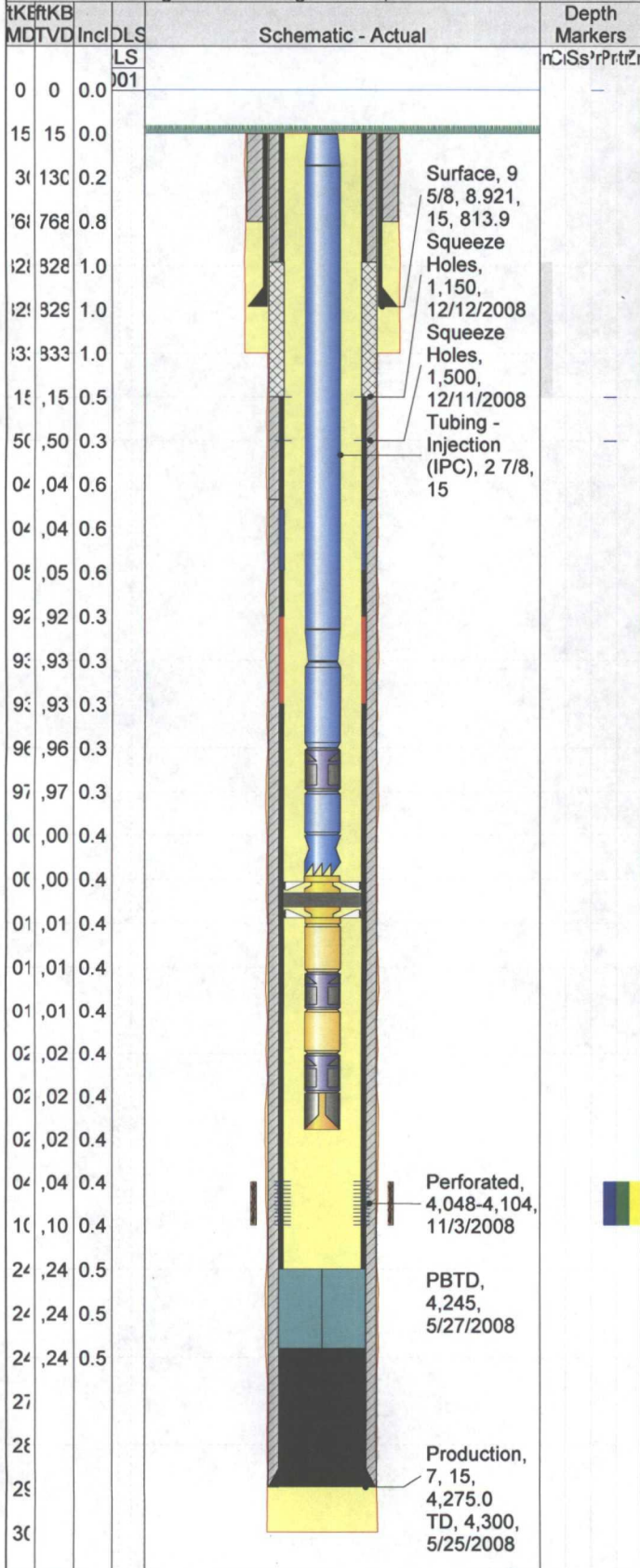
Comment

Frac Start D...	Top Perf (...)	Bottom Pe...	V (slurry) ...	Total Add ...	15 Min (psi)	ISIP (psi)	AIR (bbl/...	ATP (psi)
11/19/20...				Sand Bulk Sand 3281 ppg	0.0	2,199.0		

Comment

JOB SUMMARY Pumped 2,500 gallons of 15% HCl acid with 168 Rubber Balls.
Pumped 102,124 gallons of 13 cp Delta 140 frac fluid (excluding 6,778 gallons of 2% KCl water flush) at an avg. rate of 62.6 bpm and an avg. WHTP of 1,133 psi.
Pumped 2,008 sacks of 20/40 BASF (per weight slips) with a max BH sand concentration of 5.71 lb/gal.
Total fluid to recover is 2,673 bbls.
A 17% pad was pumped.
The maximum surface pressure reached (during treatment) was 1,703 psi.
The final frac gradient at the end of the job was 0.80 psi/ft.
Pumped 92,461 gallons of Delta 140 (clean volume for ticket).

Treater:
TCC Operator:
Engineer:



STIMULATION TREATMENT REPORT



Date 31-MAY-11 District Farmington F.Receipt 1001811960 Customer XTO Energy, Inc.
 Lease KUTZ FEDERAL SWD #1 Well Name KUTZ FEDERAL SWD #1
 Field BLANCO Location 6F-27N-10W
 County San Juan State New Mexico Stage No 1 Well API - API 30045343170000

WELL DATA		Well Type:	OLD	Well Class:	DISPOSAL	Depth TD/PB:	4245	Formation:	MESA VERDE
Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom	Perf Intervals	
TUBULAR	CSG	7	23	6.366	J-55	0	4245	Top	Bottom
TUBULAR	TBG	2.875	6.5	2.441	J-55	0	4130	4028	4032
COMPLETION						4028	4104	4048	4060
								4082	4088
								4094	4104

Packer Type _____ Packer Depth 3840 FT

TREATMENT DATA				LIQUID PUMPED AND CAPACITIES IN BBLs	
Fluid Type	Fluid Desc	Pumped Volume(Gals)	Prop. Description	Volume Pumped(Lbs)	
TREATMENT FLUID	2% KCL	33.554			Tubing Cap. 23.9
			Total Prop Qty: _____		Casing Cap. 4.5
					Annular Cap. 129.4
					Open Hole Cap. 0
					Fluid to Load 23
					Pad Volume 7.9
					Treating Fluid 798.9
					Flush 0
					Overflush 0
					Fluid to Recover 798.9

Previous Treatment NA Previous Production NA
 Hole Loaded With 2% KCL Treat Via: Tubing ☒ Casing ☐ Anul. ☐ Tubing & Anul. ☐
 Ball Sealers: _____ In _____ Stages Type _____
 Auxiliary Materials _____

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLs. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
08:10						ARRIVE LOCATION
09:50						SAFETY MEETING
10:02						PRESSURE TEST LINES
10:06	950	0	7.9	0	1	OPEN W/H LOAD HOLE
10:12	1016	0	11.1	7.9	.5	ST .5
10:33	1075	0	20	19	1	ST 1
10:53	1198	0	33.5	39	1.5	ST 1.5
11:16	1286	0		72.5	0	S/D- OUT OF H2O
11:33	1235	0	40	72.5	2	ST 2
11:53	1431	0	50.2	112.5	2.5	ST 2.5
12:13	1576	0	60.2	162.7	3	ST 3
12:33	1741	0	60.5	222.9	3.5	ST 3.5
12:51	1731	0		283.4	0	S/D- OUT OF H2O
13:09	1616	0	70.2	283.4	3.5	ST 3.5
13:29	1805	0	85.2	353.6	4	ST 4
13:50	1921	0	100.2	438.8	4.5	ST 4.5
14:13	2058	0	102.3	539	5	ST 5
14:33	1997	0	157.6	641.3	4.5	ST 4.5
15:07	1937	0		798.9	0	SHUT DOWN
15:12	1456					ST 5 MIN
15:17	1439					ST 10 MIN
15:22	1425					ST 15 MIN

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep. Mr. Danny Thomas	
Minimum	950	Treating Fluid	5	ISDP	1937	BJ Rep.	JESS BEAVERS
Maximum	2058	Flush	4.5	5 Min.	1456	Job Number	1001811960
Average	1576	Average	2.5	10 Min.	1439	Rec. ID No.	
Operators Max. Pressure 2500				15 Min.	1425	Distribution	
				Final	1424 In 15 Min.		
				Flush Dens. lb./gal.	8.43		



PRESSURE GAUGE DATA

Company: XTO Energy, Inc.

Well Name: Kutz Federal SWD #1

Date: 5/31/11-6/4/11

INDIVIDUAL WELL DATA SHEET

[illegible]

Static Gradient Report

Oil Company: XTO ENERGY, INC.
Well Name: KUTZ FEDERAL SWD 1
Well Location: T27N, R10W, SEC. 6
Field: BLANCO MESAVERDE
Formation: MESAVERDE
On Bottom Time: 5/31/11 @ 0800 hrs
Off Bottom Time: 6/4/11 @ 0636 hrs

OIL COMPANY INFORMATION

Oil Company: XTO ENERGY, INC.
Address: AZTEC, NM

WELL INFORMATION

Well Name: KUTZ FEDERAL SWD 1
Well Location: T27N, R10W, SEC. 6
Field: BLANCO MESAVERDE
Pool:
Formation: MESAVERDE
Well Licence Number: 300453431700
Well Fluid Status: 02 Gas
Well Mode Status: 07 Standing(Drilled & Cased)
Well Type Status: 09 Industrial
Well Type Indicator: Vertical
Production Interval(KB) From: 4048 TO 4104
KB Elevation: 5792 CF Elevation: Ground Elevation: 5807
Pool Datum: Datum Depth: 5792
Producing Through: Tubing
O.H. Diameter:
Casing Liner Diameter:
PBTD: 4245
Total Depth: 4300
Tubing Depth: 3969
Tubing OD.: 2 7/8 Tubing ID.: 6.4# L80
Casing OD.: 7 Casing ID.: 23# J55

TEST INFORMATION

Type Of Test: Static Gradient
Initial Tubing Pressure: Final Tubing Pressure:
Initial Casing Pressure: Final Casing Pressure:
Shut in Time:

GAUGE INFORMATION

Serial Number: W1037
Pressure Range: 325
Calibration Date: MAR 2/11
Gauge Started: Gauge Stopped:
On Bottom Time: 5/31/11 @ 0800 hrs Off Bottom Time: 6/4/11 @ 0636 hrs
Run Depth Bottom (KB): 4066

REMARKS

5/31/11-...RAN TANDEM BHP GAUGES TO 4066'-RAN INJ TEST-LEFT GAUGES IN TO MONITOR WELL.
6/4/11-AOL-POOH W/TANDEM BHP GAUGES MAKING GRADIENT STOPS.

GRADIENT SUMMARY

Oil Company: XTO ENERGY, INC.

Well Location: T27N, R10W, SEC. 6

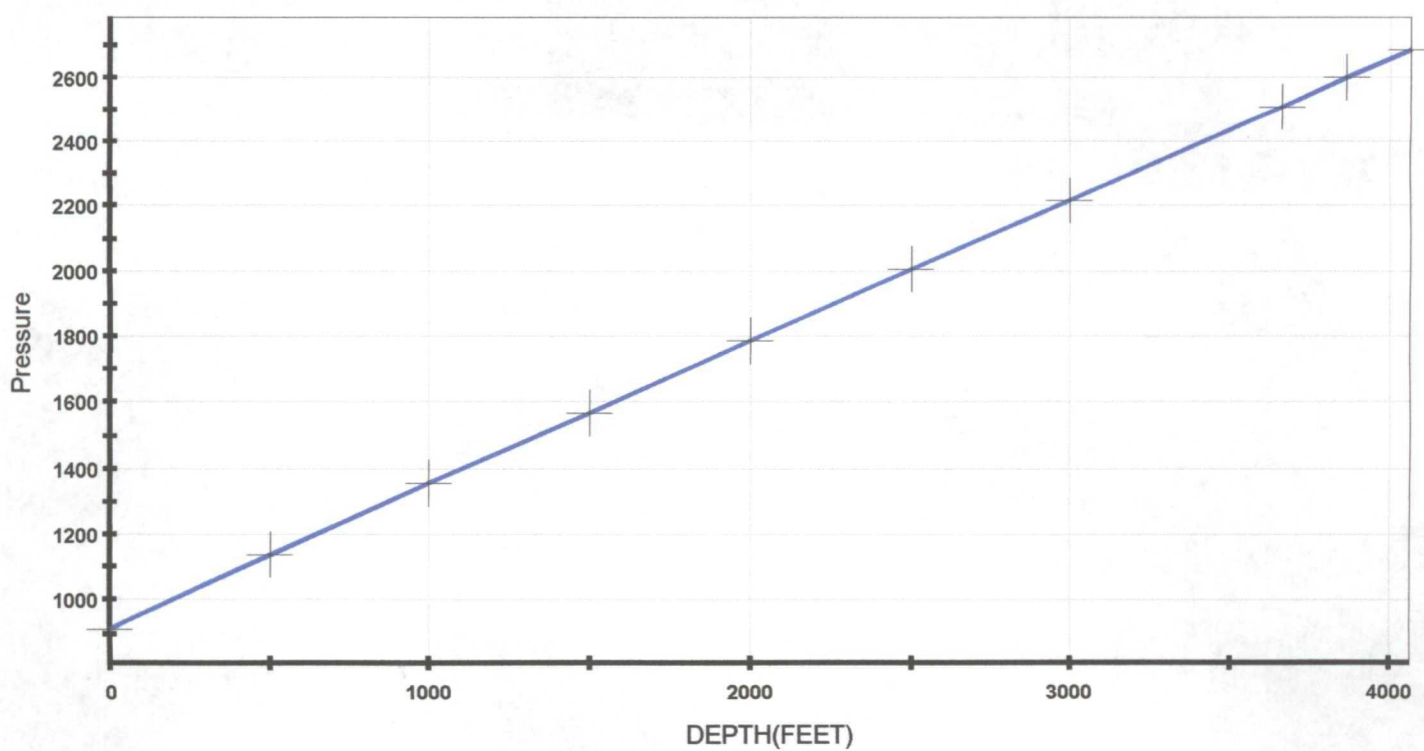
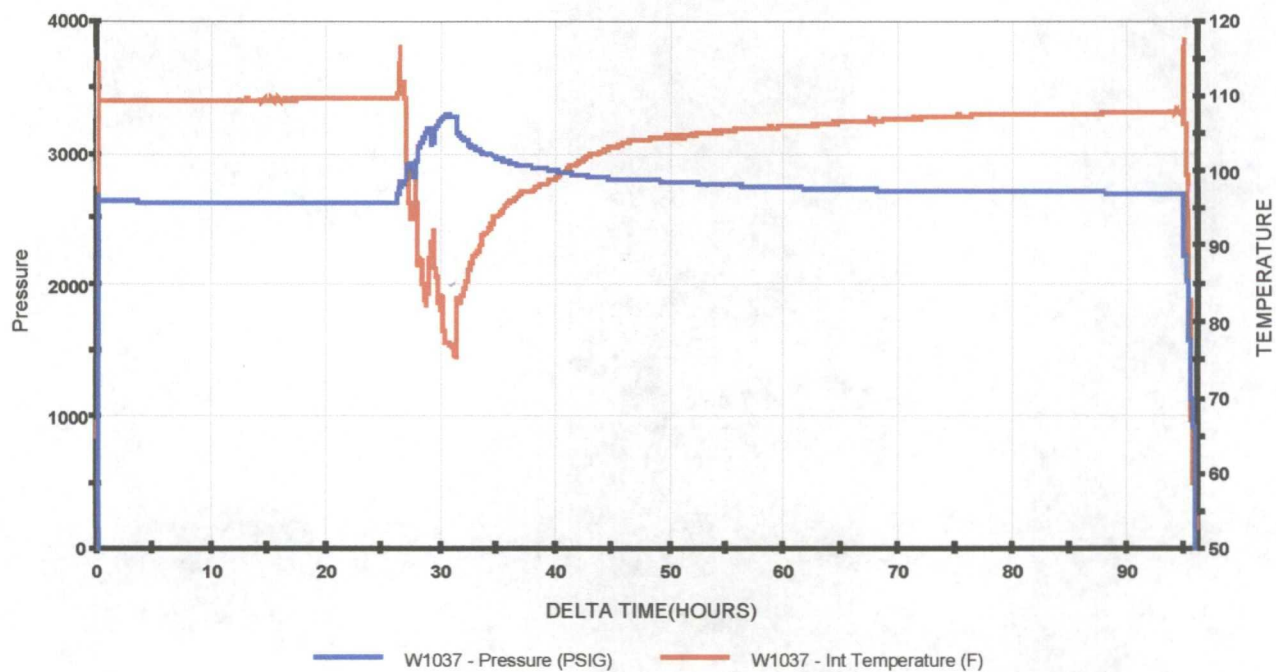
#	Real Time	Depth	Stop Time	Temp.(DEG.F)	Pres.(PSIG)	Gradient
1	06/04/2011 07:33:20	0.0	0728 - 0733	58.375	912.8	0.000
2	06/04/2011 07:25:20	500.0	0721 - 0727	66.455	1135.6	0.446
3	06/04/2011 07:18:15	1000.0	0715 - 0720	73.227	1353.3	0.435
4	06/04/2011 07:12:30	1500.0	0709 - 0714	82.438	1571.7	0.437
5	06/04/2011 07:06:20	2000.0	0703 - 0708	91.852	1788.1	0.433
6	06/04/2011 07:00:35	2500.0	0657 - 0702	99.594	2007.2	0.438
7	06/04/2011 06:54:35	3000.0	0651 - 0656	105.875	2220.9	0.427
8	06/04/2011 06:47:35	3666.0	0644 - 0649	115.560	2508.9	0.432
9	06/04/2011 06:41:30	3866.0	0638 - 0643	117.869	2595.7	0.434
10	06/04/2011 06:35:45	4066.0	- 0636	108.047	2682.3	0.433

FLUID LEVEL IS AT N/A

Gradient Plots

Oil Company: XTO ENERGY, INC.

Well Location: T27N, R10W, SEC. 6



COMMENT SUMMARY

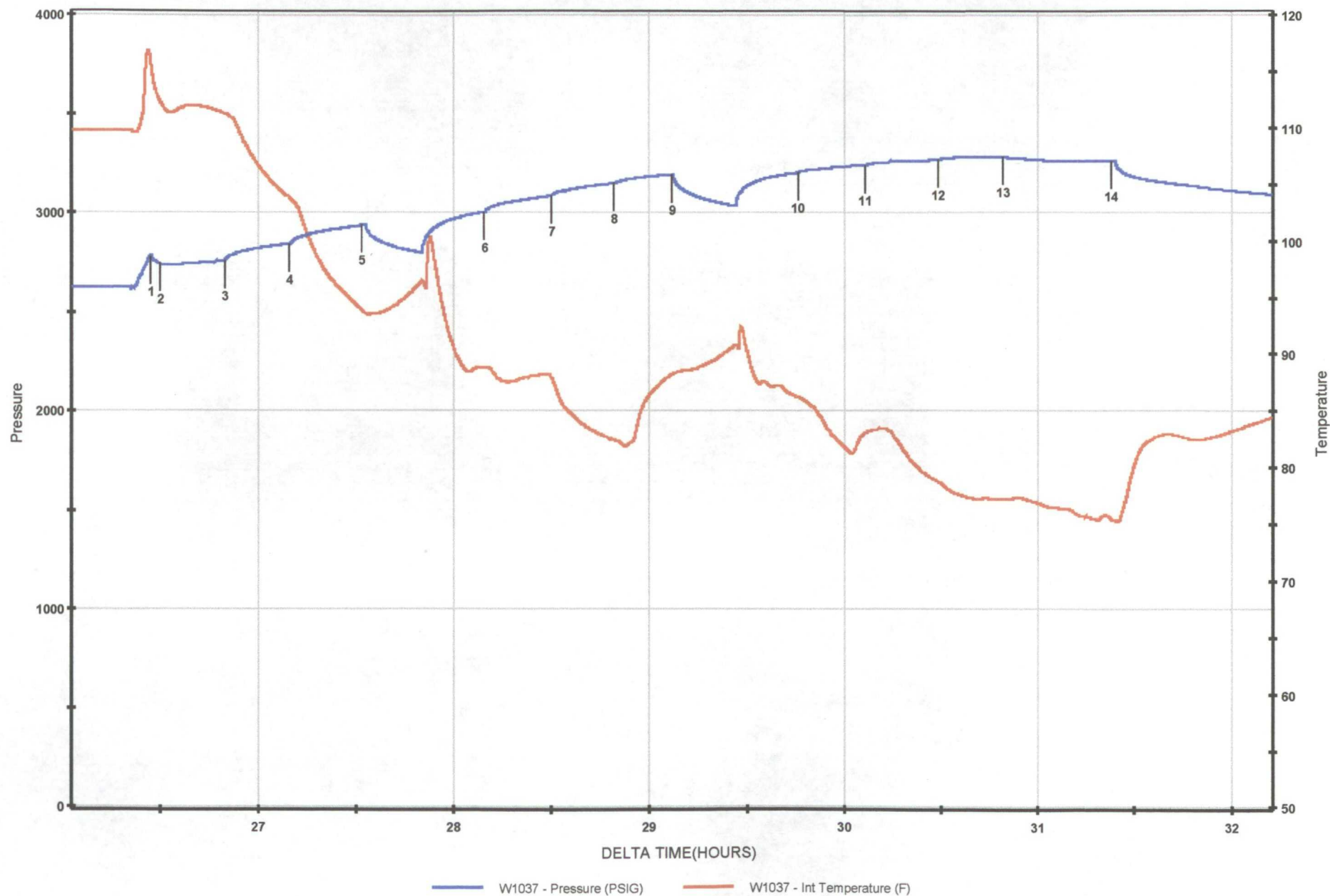
Oil Company: CONOCOPHILLIPS
Date of Test: JUNE 4, 2011

Well Location: KUTZ FEDERAL SWD #1
Serial#: W1037

#	Real Time	Comment	Pres.(PSIG)	Temp.(DEG.F)
1	06/01/2011 10:08:46	STOPPED PUMPING	2780.97	116.222
2	06/01/2011 10:12:00	0.5 BPM	2739.89	112.235
3	06/01/2011 10:31:38	1.0 BPM	2757.58	111.266
4	06/01/2011 10:51:50	1.5 BPM	2843.05	103.740
5	06/01/2011 11:13:48	2.0 BPM/STOPPED PUMPING	2936.72	93.912
6	06/01/2011 11:51:10	2.5 BPM	3002.99	88.855
7	06/01/2011 12:12:02	3.0 BPM	3084.68	87.947
8	06/01/2011 12:31:16	3.5 BPM	3147.62	82.420
9	06/01/2011 12:48:52	STOPPED PUMPING	3193.56	88.223
10	06/01/2011 13:27:36	4.0 BPM	3201.17	86.252
11	06/01/2011 13:48:34	4.5 BPM	3241.05	83.071
12	06/01/2011 14:11:02	5.0 BPM	3265.36	78.747
13	06/01/2011 14:31:20	4.5 BPM	3282.81	77.194
14	06/01/2011 15:05:08	STOPPED PUMPING	3259.96	75.431
15	06/01/2011 15:06:08	STOPPED PUMPING	3260.28	75.324

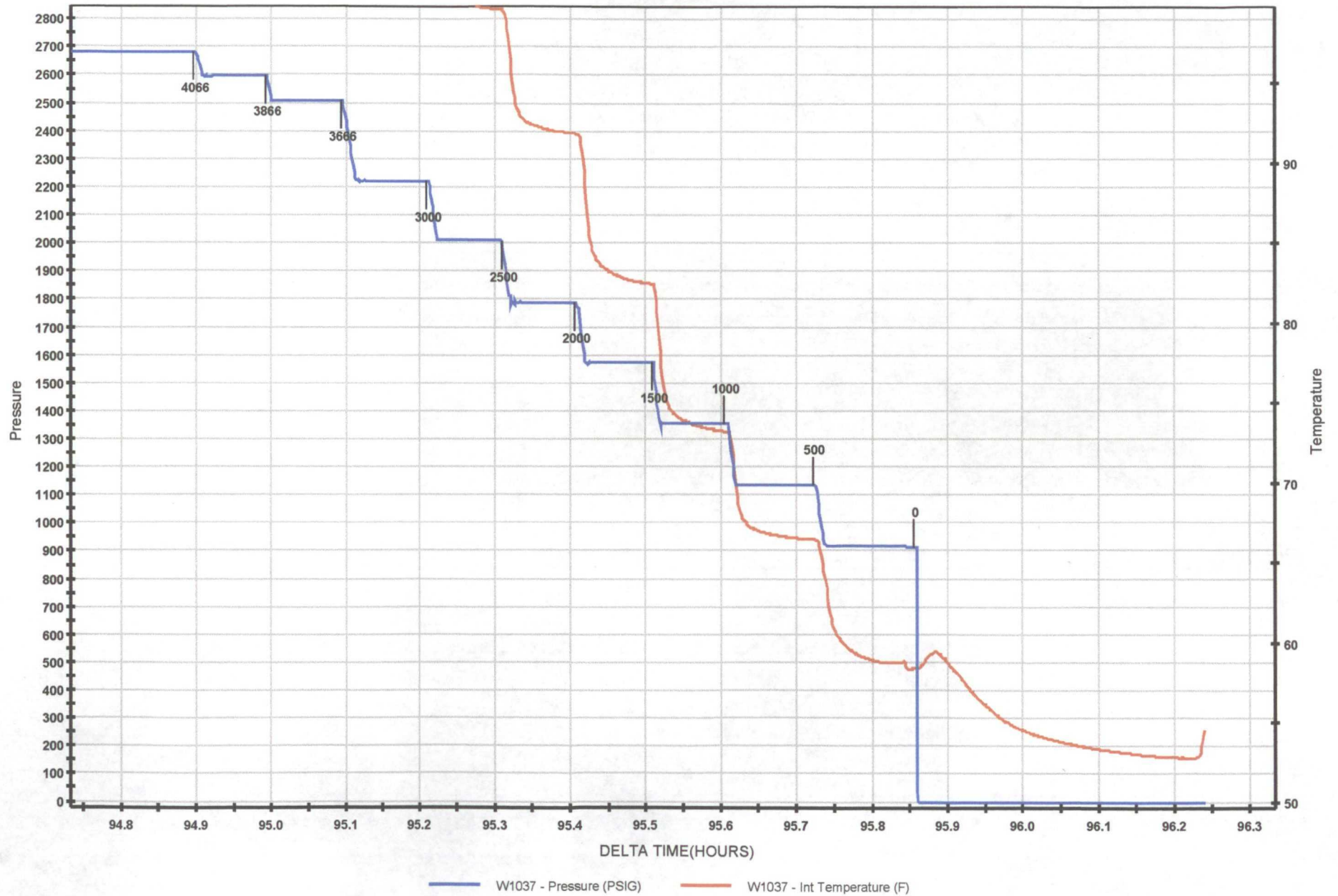
PRESSURE AND TEMPERATURE VS DELTA TIME

Company: XTO ENERGY, INC.
Location: KUTZ FEDERAL SWD #1 INJ TEST
Date: MAY 31, 2011
Serial# W1037
Max. Pressure: 3283.108 Max. Temperature: 117.894



PRESSURE AND TEMPERATURE VS DELTA TIME

Company: XTO ENERGY, INC.
Location: KUTZ FEDERAL SWD 1 GRADIENT
Date: JUNE 4, 2011
Serial# W1037
Max. Pressure: 3283.108 Max. Temperature: 117.894



PRESSURE AND TEMPERATURE VS DELTA TIME

Company: XTO ENERGY, INC.
Location: KUTZ FEDERAL SWD #1
Date: 5/31/11-6/4/11
Serial# W1037

Max. Pressure: 3283.108 Max. Temperature: 117.894

