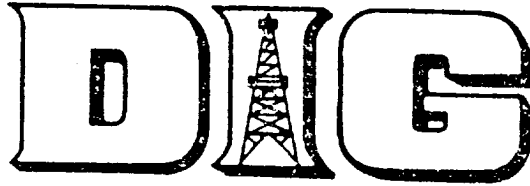


Holter



SUB-SURFACE
DIRECTIONAL
SURVEY
REPORT

TXO PRODUCTION CORP.
COMPANY
PENRON BYERS WELL NO. 1
WELL NAME
LEA COUNTY, NEW MEXICO
STATE AND COUNTY

FIELD REPORT

OK 9/8

TXO PRODUCTION CORP.

WELL #
PENRON BYERS WELL NO. 1

LOCATION
LEA COUNTY, NEW MEXICO

DATE
5/17/88, 5/24/88, 5/24/88 - 6/27/88

JOB TYPE
GYRO, MULTISHOT, RIG CREW SINGLES

JOB #
CS-2084, MS-2087

SURVEYOR
MOODY, EATON

DEPTHS
C - 11723'

DECL.
0 DEGREES EAST

ELEV.
0'

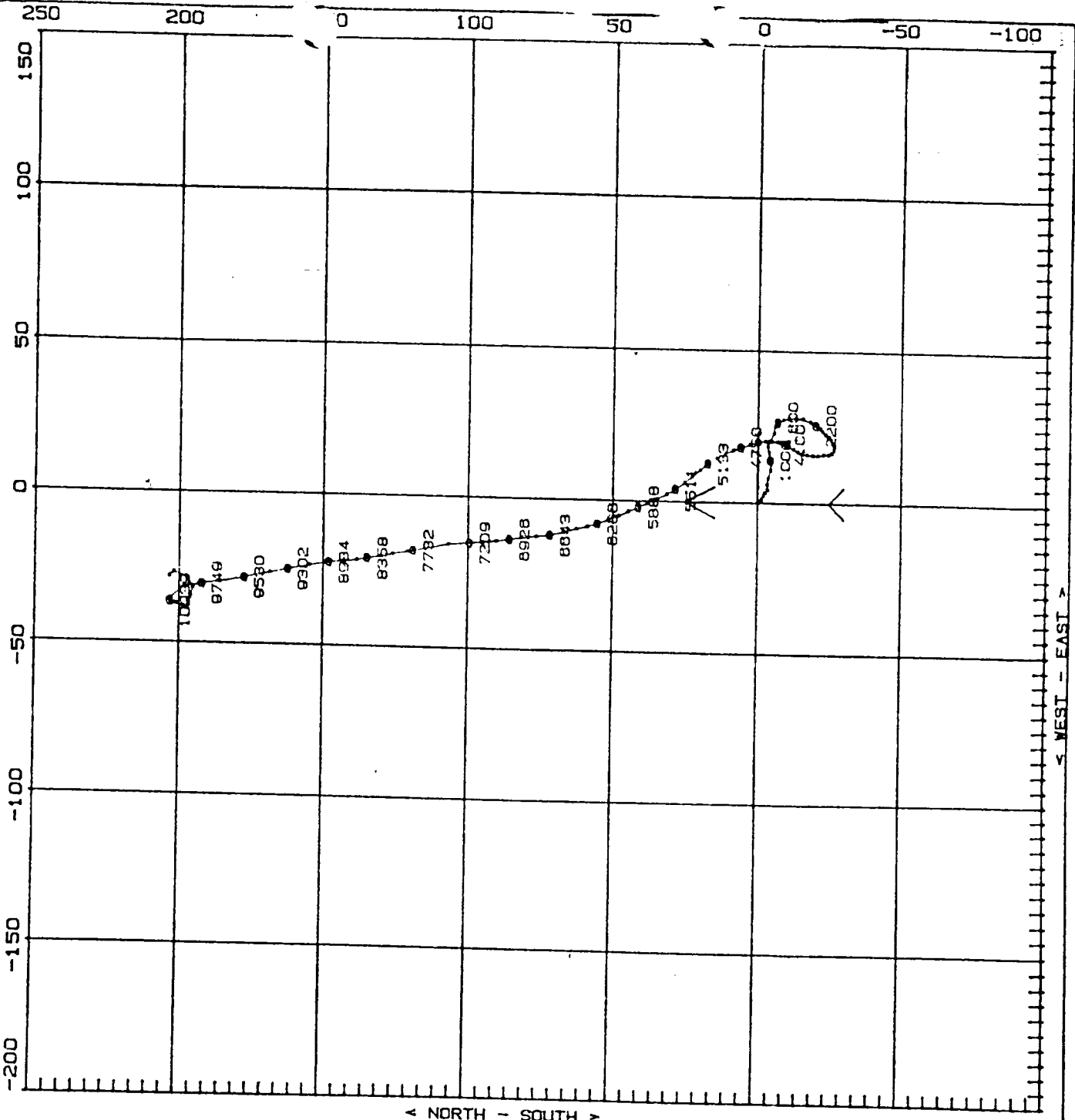
FILE #
WT-JJ135

FINAL STATION DATA

MD. 11723.00
TVD. 11717.19
N/S 203.40
E/W -28.15

CLOSURE DISTANCE
205.34 FEET
CLOSURE DIRECTION
N 7.88 W

1 IN. = 50 FT.



CUSTOMER : TXO PRODUCTION CORP.

WELL # : PENRON BYERS WELL NO.1

LOCATION : LEA COUNTY, NEW MEXICO

DATE : 5/17/88, 5/24/88, 5/24/88 - 6/27/88

OB TYPE : GYRO, MULTISHOT, RIG CREW SINGLES SHOTS

OB # : GS-2064, MS-2067

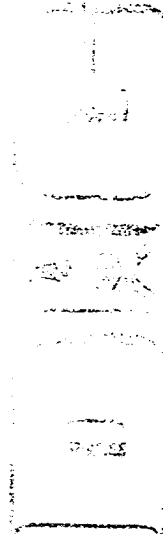
SURVEYOR : MOODY, EATON

DEPTH : 0 - 11723'

DECL. : 9 DEGREES EAST

LEV. : 0'

FILE # : WT-JJ135



METHOD : RADIUS OF CURVATURE

SECTION : 0

THIS SURVEY IS CORRECT TO THE
BEST OF MY KNOWLEDGE AND IS
SUPPORTED BY ACTUAL FIELD DATA.

David J. Jones
DIA REPRESENTATIVE

FINAL STATION DATA:

MEASURED	INCL.	HOLE	COURSE	LENGTH	DEPTH	TRUE	RECTANGULAR	CL	SUR	DOG-LEG
DEPTH	ANGLE	DIRECTION								
FEET	DEGS.	DEGS.	FEET	FEET	FEET	FEET	DISTANCE	DIRECTION	SEVERITY	
							N/S	E/W	DEGS.	DEGS/100FT

11723.00 1.00 N 87.00 W 94.00 11717.19 203.40 N 28.15 W 205.34' N 07.88 W 2.08

TXD PRODUCTION CORP.

PENRON BYERS WELL NO.1

WT-JJ139

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00/00/00

MEASURED	INCL.	HOLE	COURSE	VERTICAL	TRUE	N/S	feet	E/U	FEET	DIRECTION	SEVERITY
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	FEET	FEET	FEET	FEET	FEET	FEET	FEET
FEET	DEGS.	DEGS.	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET
0.00	0.00	* * * * *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N 00.00 E	0.00
100.00	.53	S 29.82 E	100.00	100.00	100.00	.40 S	.23 E	.47	S 29.82 E	S 29.82 E	.53
200.00	1.00	S 58.23 E	100.00	199.99	199.99	1.36 S	1.15 E	1.78	S 40.34 E	S 40.34 E	.59
300.00	.67	S 68.12 E	100.00	299.98	299.98	2.01 S	2.45 E	3.17	S 50.59 E	S 50.59 E	.36
400.00	.30	S 54.75 E	100.00	399.97	399.97	2.41 S	3.19 E	4.00	S 52.86 E	S 52.86 E	.38
500.00	.15	S 18.35 E	100.00	499.97	499.97	2.72 S	3.42 E	4.37	S 51.44 E	S 51.44 E	.20
600.00	1.00	S 87.23 E	100.00	599.97	599.97	3.30 S	4.17 E	5.31	S 51.68 E	S 51.68 E	.96
700.00	1.10	N 84.77 E	100.00	699.95	699.95	3.26 S	6.00 E	5.83	S 61.51 E	S 61.51 E	.18
800.00	1.13	S 51.47 E	100.00	799.93	799.93	3.64 S	7.88 E	8.68	S 65.19 E	S 65.19 E	.65
900.00	2.08	S 84.02 E	100.00	899.89	899.89	4.47 S	10.54 E	11.45	S 67.02 E	S 67.02 E	1.12
1000.00	1.87	N 93.18 E	100.00	999.83	999.83	4.45 S	13.98 E	14.67	S 72.36 E	S 72.36 E	.49
1100.00	1.17	N 70.52 E	100.00	1099.80	1099.80	3.85 S	16.56 E	17.00	S 76.92 E	S 76.92 E	.77
1200.00	1.28	N 33.20 E	100.00	1199.77	1199.77	3.36 S	18.63 E	18.93	S 79.78 E	S 79.78 E	.29
1300.00	1.15	S 43.45 E	100.00	1299.75	1299.75	4.06 S	20.56 E	20.95	S 78.84 E	S 78.84 E	1.10
1400.00	2.07	S 74.85 E	100.00	1399.71	1399.71	5.48 S	22.94 E	23.58	S 76.57 E	S 76.57 E	1.24
1500.00	.77	S 83.05 E	100.00	1499.68	1499.68	5.95 S	25.36 E	26.05	S 76.80 E	S 76.80 E	1.31
1600.00	1.25	S 23.62 E	100.00	1599.66	1599.66	6.96 S	26.71 E	27.60	S 75.41 E	S 75.41 E	1.08
1700.00	1.05	S 29.05 E	100.00	1699.64	1699.64	8.75 S	27.60 E	28.96	S 72.40 E	S 72.40 E	.23
1800.00	1.57	S 01.30 W	100.00	1799.62	1799.62	10.94 S	28.14 E	30.20	S 68.75 E	S 68.75 E	.85
1900.00	1.05	S 05.25 E	100.00	1899.59	1899.59	13.22 S	28.22 E	31.17	S 64.89 E	S 64.89 E	.54
2000.00	1.85	S 17.73 W	100.00	1999.56	1999.56	15.72 S	27.95 E	32.07	S 60.64 E	S 60.64 E	.97
2100.00	1.32	S 24.18 W	100.00	2099.52	2099.52	18.30 S	26.96 E	32.59	S 55.83 E	S 55.83 E	.56
2200.00	1.40	S 33.07 W	100.00	2199.49	2199.49	20.38 S	25.83 E	32.90	S 51.72 E	S 51.72 E	.23
2300.00	.60	S 35.92 W	100.00	2299.47	2299.47	21.82 S	24.84 E	33.06	S 48.70 E	S 48.70 E	.80
2400.00	.83	S 63.33 W	100.00	2399.47	2399.47	22.62 S	23.89 E	32.90	S 46.57 E	S 46.57 E	.41

TXO PRODUCTION CORP.
PENRON BYERS WELL NO.1
WT-JJ135

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00:22:54
00/00/00

MEASURED DEPTH FEET	INCL. ANGLE DEGS.	HOLE DIRECTION DEGS.	COURSE LENGTH FEET	VERTICAL DEPTH FEET	TRUE	N/S	feet E/W	C L O S U R E	DISTANCE FEET	DIRECTION DEGS.	DOG-LEG SEVERITY DG/100FT
2500.00	1.07	S 34.05 W	100.00	2499.45		23.70 S	22.66 E		32.79'	S 43.71 E	.53
2600.00	.62	S 25.45 W	100.00	2599.44		24.98 S	21.93 E		33.24'	S 41.29 E	.47
2700.00	.63	S 76.88 W	100.00	2699.44		25.64 S	21.11 E		33.21'	S 39.47 E	.54
2800.00	.93	S 62.92 W	100.00	2799.43		26.11 S	19.83 E		32.79'	S 37.22 E	.35
2900.00	.70	S 54.37 W	100.00	2899.42		26.84 S	18.61 E		32.67'	S 34.73 E	.26
3000.00	.70	N 36.12 W	100.00	2999.41		26.66 S	17.52 E		31.91'	S 33.31 E	.98
3100.00	.75	N 57.22 W	100.00	3099.40		25.89 S	16.54 E		30.72'	S 32.58 E	.39
3200.00	.85	N 24.95 E	100.00	3199.39		24.72 S	16.09 E		29.50'	S 33.06 E	1.15
3300.00	1.20	N 18.52 W	100.00	3299.37		22.98 S	16.19 E		28.11'	S 35.17 E	.83
3400.00	1.07	N 13.02 W	100.00	3399.35		21.08 S	15.65 E		26.25'	S 36.60 E	.17
3500.00	1.12	N 21.45 E	100.00	3499.34		19.21 S	15.79 E		24.86'	S 39.43 E	.65
3600.00	1.37	N 08.52 W	100.00	3599.31		17.08 S	16.03 E		23.42'	S 43.19 E	.69
3700.00	.70	N 19.22 E	100.00	3699.30		15.30 S	16.20 E		22.28'	S 46.64 E	.81
3800.00	1.07	N 31.05 E	100.00	3799.28		13.91 S	16.85 E		21.85'	S 50.47 E	.41
3900.00	1.03	N 28.72 E	100.00	3899.27		12.32 S	17.77 E		21.62'	S 55.27 E	.05
4000.00	.92	N 28.00 E	100.00	3999.25		10.82 S	18.58 E		21.50'	S 59.78 E	.12
4100.00	.95	N 28.80 E	100.00	4099.24		9.39 S	19.35 E		21.51'	S 64.12 E	.04
4221.00	.80	N 14.00 E	121.00	4220.23		7.67 S	20.03 E		21.45'	S 69.03 E	.22
4284.00	1.10	N 11.00 E	63.00	4283.22		6.65 S	20.25 E		21.32'	S 71.81 E	.48
4379.00	1.20	N 01.00 W	95.00	4378.20		4.76 S	20.42 E		20.97'	S 76.88 E	.27
4473.00	1.50	N 03.00 W	94.00	4472.17		2.54 S	20.34 E		20.50'	S 82.87 E	.32
4567.00	1.70	N 14.00 W	94.00	4566.13		.05 N	19.95 E		19.95'	N 89.87 E	.39
4662.00	1.90	N 17.00 W	95.00	4661.09		2.92 N	19.16 E		19.38'	N 81.33 E	.23
4756.00	1.80	N 21.00 W	94.00	4755.04		5.79 N	18.17 E		19.07'	N 72.32 E	.17
4850.00	1.80	N 21.00 W	94.00	4848.99		8.55 N	17.11 E		19.13'	N 63.46 E	0.00

TXO PRODUCTION CORP.

PENRON BYERS WELL NO.1

WT-JJ135

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MEASURED	INCL.	HOLE	COURSE	VERTICAL	RECTANGULAR	C L O S U R E	DOG-LEG
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	COORDINATES	DISTANCE	SEVERITY
FEET	DEGS.	DEGS.	FEET	FEET	N/S	E/W	DEGS.
4945.00	1.90	N 23.00 W	95.00	4943.94	11.39 N	15.96 E	19.61' N 54.49 E
5039.00	2.10	N 32.00 W	94.00	5037.89	14.30 N	14.45 E	20.33' N 45.30 E
5133.00	2.20	N 38.00 W	94.00	5131.82	17.19 N	12.43 E	21.21' N 35.87 E
5228.00	2.10	N 39.00 W	95.00	5226.75	19.97 N	10.21 E	22.43' N 27.07 E
5322.00	2.10	N 38.00 W	94.00	5320.69	22.67 N	9.06 E	24.06' N 19.58 E
5417.00	2.10	N 38.00 W	95.00	5415.63	25.41 N	5.92 E	26.09' N 13.11 E
5511.00	2.20	N 31.00 W	94.00	5509.56	28.32 N	3.92 E	28.59' N 07.89 E
5605.00	2.20	N 28.00 W	94.00	5603.49	31.46 N	2.15 E	31.53' N 03.91 E
5700.00	2.20	N 22.00 W	93.00	5698.43	34.76 N	1.61 E	34.77' N 01.00 E
5794.00	2.00	N 26.00 W	94.00	5792.36	37.91 N	1.79 W	37.92' N 01.20 W
5888.00	2.30	N 19.00 W	94.00	5886.29	41.16 N	2.14 W	41.22' N 02.93 W
5983.00	2.30	N 26.00 W	95.00	5981.21	44.68 N	3.60 W	44.83' N 04.61 W
6077.00	2.20	N 22.00 W	94.00	6075.14	48.05 N	5.10 W	48.32' N 06.06 W
6171.00	2.50	N 21.00 W	94.00	6169.06	51.64 N	6.51 W	52.05' N 07.19 W
6266.00	2.20	N 21.00 W	95.00	6263.98	55.28 N	7.91 W	55.34' N 08.14 W
6360.00	2.30	N 11.00 W	94.00	6357.91	58.82 N	8.93 W	59.49' N 08.63 W
6454.00	2.50	N 15.00 W	94.00	6451.83	62.65 N	9.81 W	63.42' N 08.90 W
6549.00	2.90	N 15.00 W	95.00	6546.72	66.98 N	10.97 W	67.87' N 09.30 W
6643.00	2.90	N 10.00 W	94.00	6640.60	71.62 N	12.00 W	72.62' N 09.51 W
6737.00	2.90	N 04.00 W	94.00	6734.48	76.34 N	12.50 W	77.37' N 09.36 W
6832.00	2.80	N 07.00 W	95.00	6829.36	81.04 N	13.03 W	82.08' N 09.13 W
6926.00	2.90	N 11.00 W	94.00	6923.25	85.65 N	13.76 W	86.75' N 09.13 W
7020.00	2.90	N 06.00 W	94.00	7017.13	90.36 N	14.46 W	91.51' N 09.09 W
7115.00	2.70	N 05.00 W	95.00	7112.01	94.97 N	14.91 W	96.14' N 08.92 W
7209.00	2.70	N 04.00 W	94.00	7205.91	99.39 N	15.26 W	100.55' N 08.73 W

TXO PRODUCTION CORP.
PENRON BYERS WELL NO.1
WT-JJ13S

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00/00/00

MEASURED DEPTH FEET	INCL. ANGLE DEGS.	HOLE DIRECTION DEGS.	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	N/S	RECTANGULAR CORDINATES feet E/W	DISTANCE FEET	CLOSURE DIRECTION DEGS.	DOG-LEG SEVERITY DG/100FT
7385.00	2.25	N 06.00 W	176.00	7381.74	106.96 N	15.92 W	108.14'	N 08.46 W	.26
7732.00	1.75	N 16.00 W	347.00	7728.53	118.83 N	18.23 W	120.22'	N 08.72 W	.18
7794.00	1.75	N 04.00 W	62.00	7790.50	120.69 N	18.55 W	122.11'	N 08.74 W	.59
7983.00	1.50	N 15.00 W	189.00	7979.43	125.97 N	19.44 W	127.46'	N 08.77 W	.21
8140.00	1.50	N 09.00 W	157.00	8136.37	129.99 N	20.29 W	131.56'	N 08.87 W	.10
8358.00	1.00	N 08.00 W	218.00	8354.32	134.69 N	20.99 W	136.32'	N 08.86 W	.23
8547.00	1.25	N 13.00 W	189.00	8543.28	138.34 N	21.67 W	140.03'	N 08.90 W	.14
8735.00	1.50	N 02.00 W	188.00	8731.23	142.81 N	22.26 W	144.53'	N 08.86 W	.19
8934.00	1.50	N 06.00 W	199.00	8930.16	148.00 N	22.62 W	149.72'	N 08.69 W	.05
9144.00	2.25	N 13.00 W	210.00	9140.05	154.77 N	23.75 W	156.59'	N 08.73 W	.37
9302.00	3.25	N 09.00 W	158.00	9297.86	162.21 N	25.20 W	164.16'	N 08.83 W	.64
9405.00	4.00	N 12.00 W	103.00	9400.66	168.62 N	26.39 W	170.67'	N 08.89 W	.75
9530.00	4.25	N 12.00 W	125.00	9525.33	177.41 N	28.26 W	179.65'	N 09.05 W	.20
9655.00	3.75	N 08.00 W	125.00	9650.03	186.00 N	29.77 W	188.36'	N 09.09 W	.46
9749.00	3.75	N 05.00 W	94.00	9743.83	192.10 N	30.47 W	194.51'	N 09.01 W	.21
9844.00	3.75	N 15.00 W	95.00	9838.62	198.22 N	31.54 W	200.71'	N 09.04 W	.69
9987.00	1.50	N 65.00 W	143.00	9981.46	203.07 N	35.62 W	206.18'	N 09.95 W	2.11
10039.00	.75	S 69.00 W	52.00	10033.45	203.11 N	36.61 W	206.38'	N 10.22 W	2.15
10130.00	.75	S 14.00 E	91.00	10124.45	202.14 N	37.12 W	205.52'	N 10.40 W	1.09
10225.00	.50	S 24.00 W	95.00	10219.44	201.13 N	37.21 W	204.54'	N 10.48 W	.50
10319.00	.50	S 19.00 W	94.00	10313.44	200.37 N	37.51 W	203.85'	N 10.60 W	.05
10477.00	.25	S 14.00 W	158.00	10471.43	199.38 N	37.80 W	202.93'	N 10.74 W	.16
10634.00	.50	S 47.00 W	157.00	10628.43	198.50 N	38.32 W	202.17'	N 10.92 W	.20
10791.00	.50	S 01.00 E	157.00	10785.42	197.28 N	38.83 W	201.06'	N 11.14 W	.26
10949.00	.75	N 42.00 E	158.00	10943.41	196.81 N	37.58 W	200.36'	N 10.81 W	.74

TXO PRODUCTION CORP.
PENRON BYERS WELL NO.1
WT-JJ13S

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00:25:32
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MEASURED DEPTH FEET	INCL. ANGLE DEGS.	HOLE DIRECTION DEGS.	COURSE LENGTH FEET	VERTICAL DEPTH FEET	TRUE N/S	RECTANGULAR COORDINATES E/W	CLOSURE DISTANCE FEET	DIRECTION DEGS.	DOG-LEG SEVERITY
11043.00	.75	S 71.00 E	94.00	11037.41	197.10 N	36.45 W	200.44'	N 10.48 W	.88
11168.00	1.00	S 43.00 E	125.00	11162.39	196.07 N	34.87 W	199.15'	N 10.08 W	.39
11324.00	1.50	N 73.00 E	156.00	11318.35	195.23 N	31.75 W	197.80'	N 09.24 W	.89
11477.00	1.75	N 39.00 E	153.00	11471.29	197.62 N	28.21 W	199.63'	N 08.12 W	.64
11629.00	1.75	N 01.00 W	152.00	11623.22	201.92 N	26.72 W	203.69'	N 07.54 W	.79
11723.00	1.00	N 87.00 W	94.00	11717.19	203.40 N	28.15 W	205.34'	N 07.88 W	2.08

CLOSURE DISTANCE = 205.34 FEET
CLOSURE DIRECTION = N 07.88 W