



**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

EXXON COMPANY U.S.A.
COMPANY

STATE F.F. WELL NO. 1
WELL NAME

LEA COUNTY, NEW MEXICO
LOCATION

JOB NUMBER

430-905
430-905

TYPE OF SURVEY

GYROSCOPIC MULTI-SHOT SURVEY
MAGNETIC MULTI-SHOT SURVEY

DATE

5/OCT/88
6/OCT/88

SURVEY BY
TIM STEPHENS

OFFICE
MIDLAND

FOR

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* * * * *
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OPERATOR	:	EXXON COMPANY U.S.A.
WELL NAME	:	STATE F.F. WELL NO. 1
LOCATION	:	LEA COUNTY, NEW MEXICO
JOB NUMBER	:	
RIG	:	CACTUS RIG 4
DECLINATION	:	10.00 E

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EC DISTRICT : WEST TEXAS BASE

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	R E C T A N G U L A R C O O R D I N A T E S	DOGLEG SEVERITY
0.00	0 0	N 0 0 E	0.00	0.00	0.00 N 0.00 E	0.00
100.00	0 30	S 75 31 W	100.00	100.00	0.11 S 0.42 W	0.50
200.00	0 30	S 89 42 W	100.00	199.99	0.22 S 1.29 W	0.12
300.00	0 30	N 63 6 W	100.00	299.99	0.02 S 2.13 W	0.24
400.00	0 15	S 38 55 E	100.00	399.99	0.39 S 2.42 W	0.74
500.00	0 15	N 35 44 W	100.00	499.99	0.22 S 2.20 W	0.50
600.00	0 15	S 51 33 E	100.00	599.99	0.01 S 1.98 W	0.50
700.00	0 30	N 20 22 W	100.00	699.98	0.28 N 1.59 W	0.73
800.00	0 30	S 87 48 W	100.00	799.98	0.73 N 2.27 W	0.59
900.00	0 15	S 75 1 E	100.00	899.98	0.28 N 2.32 W	0.74
1000.00	0 15	N 11 50 W	100.00	999.98	0.53 N 2.05 W	0.43
1100.00	0 30	N 46 40 W	100.00	1099.98	1.09 N 2.37 W	0.33
1200.00	0 30	N 85 30 W	100.00	1199.97	1.44 N 3.15 W	0.33
1300.00	0 30	S 66 40 W	100.00	1299.97	1.30 N 4.00 W	0.24
1400.00	0 30	S 47 50 W	100.00	1399.96	0.83 N 4.73 W	0.16
1500.00	0 30	S 23 0 W	100.00	1499.96	0.12 N 5.24 W	0.22
1600.00	0 15	S 0 50 E	100.00	1599.96	0.52 S 5.36 W	0.29
1700.00	0 15	S 29 51 E	100.00	1699.96	0.93 S 5.25 W	0.13
1800.00	0 15	S 71 41 E	100.00	1799.96	1.20 S 4.92 W	0.18
1900.00	0 15	S 27 29 W	100.00	1899.96	1.56 S 4.77 W	0.38
2000.00	0 15	S 15 39 W	100.00	1999.95	1.97 S 4.93 W	0.05
2100.00	0 15	S 5 12 E	100.00	2099.95	2.40 S 4.97 W	0.09
2200.00	0 30	N 59 5 W	100.00	2199.95	2.68 S 5.42 W	0.68
2300.00	0 30	N 79 1 W	100.00	2299.95	2.37 S 6.23 W	0.17
2400.00	0 30	N 87 59 W	100.00	2399.94	2.27 S 7.10 W	0.08
2500.00	0 15	N 85 0 W	100.00	2499.94	2.23 S 7.75 W	0.25
2600.00	0 30	S 78 56 W	100.00	2599.94	2.27 S 8.40 W	0.27
2700.00	0 30	S 89 49 W	100.00	2699.94	2.35 S 9.27 W	0.09
2800.00	0 30	N 54 21 W	100.00	2799.93	2.09 S 10.09 W	0.31
2900.00	0 15	N 1 33 W	100.00	2899.93	1.53 S 10.39 W	0.40



XXON COMPANY U.S.A.
TATE F.F. WELL NO. 1
EA COUNTY, NEW MEXICO

DECLINATION : 10.00 JOB NUMBER :
DATE PRINTED : 06-OCT-88
OUR REF. NO. : S01290.4EX

PAGE NO. 3

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	R E C T A N G U L A R C O O R D I N A T E S	DOGLEG SEVERITY
3000.00	0 15	N 10 45 W	100.00	2999.93	1.10 S 10.43 W	0.04
3100.00	0 30	N 1 58 W	100.00	3099.93	0.45 S 10.51 W	0.26
3200.00	1 0	N 32 44 E	100.00	3199.92	0.80 N 10.16 W	0.65
3300.00	1 0	N 53 31 E	100.00	3299.90	2.06 N 8.98 W	0.36
3400.00	1 15	N 39 18 E	100.00	3399.88	3.41 N 7.56 W	0.37
3500.00	0 45	N 45 6 E	100.00	3499.87	4.71 N 6.39 W	0.51
3600.00	1 0	N 41 56 E	100.00	3599.86	5.81 N 5.34 W	0.25
3700.00	0 45	N 13 47 E	100.00	3699.84	7.15 N 4.63 W	0.49
3800.00	0 45	N 44 40 E	100.00	3799.84	8.28 N 4.00 W	0.40
3900.00	0 45	N 16 34 E	100.00	3899.83	9.39 N 3.34 W	0.36
4000.00	0 30	N 16 29 W	100.00	3999.82	10.47 N 3.34 W	0.43
4100.00	0 45	N 17 28 E	100.00	4099.81	11.55 N 3.33 W	0.44
4200.00	0 30	N 0 33 W	100.00	4199.81	12.62 N 3.17 W	0.32
4300.00	0 30	N 35 0 W	100.00	4299.80	13.44 N 3.43 W	0.30
4400.00	0 30	N 54 0 W	100.00	4399.80	14.06 N 4.04 W	0.17
4500.00	0 30	N 22 0 W	100.00	4499.80	14.74 N 4.57 W	0.28
4600.00	0 45	N 40 0 W	100.00	4599.79	15.67 N 5.13 W	0.31
4700.00	0 45	N 48 0 W	100.00	4699.78	16.61 N 6.04 W	0.10
4800.00	1 0	N 46 0 W	100.00	4799.77	17.65 N 7.15 W	0.25
4900.00	1 15	N 52 0 W	100.00	4899.75	18.94 N 8.64 W	0.28
5000.00	1 0	N 56 0 W	100.00	4999.73	20.10 N 10.22 W	0.26
5100.00	1 15	N 61 0 W	100.00	5099.71	21.12 N 11.90 W	0.27
5200.00	1 15	N 50 0 W	100.00	5199.69	22.36 N 13.69 W	0.24
5300.00	1 15	N 76 0 W	100.00	5299.66	23.34 N 15.62 W	0.56
5400.00	1 15	N 65 0 W	100.00	5399.64	24.07 N 17.67 W	0.24
5500.00	1 30	N 59 0 W	100.00	5499.61	25.19 N 19.79 W	0.29
5600.00	1 30	N 65 0 W	100.00	5599.58	26.42 N 22.10 W	0.16
5700.00	1 45	N 52 0 W	100.00	5699.54	27.90 N 24.51 W	0.44
5800.00	1 45	N 56 0 W	100.00	5799.49	29.69 N 26.98 W	0.12
5900.00	1 45	N 62 0 W	100.00	5899.44	31.27 N 29.60 W	0.18

CONTINUED ON NEXT PAGE ...



XON COMPANY U.S.A.
 DATE F.F. WELL NO. 1
 A COUNTY, NEW MEXICO

DECLINATION : 10.00 JOB NUMBER :
 DATE PRINTED : 06-OCT-88
 OUR REF. NO. : 501290.4EX

PAGE NO. 4

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	R E C T A N G U L A R C O O R D I N A T E S	LOGGED SEVERITY
6000.00	1 45	N 57 0 W	100.00	5999.40	32.81 N 32.23 W	0.15
6100.00	1 45	N 57 0 W	100.00	6099.35	34.48 N 34.79 W	0.00
6200.00	1 30	N 55 0 W	100.00	6199.31	36.06 N 37.14 W	0.26
6300.00	1 30	N 56 0 W	100.00	6299.28	37.55 N 39.30 W	0.03
6400.00	1 30	N 47 0 W	100.00	6399.24	39.17 N 41.35 W	0.24
6500.00	1 0	N 41 0 W	100.00	6499.22	40.74 N 42.86 W	0.52
6600.00	1 15	N 39 0 W	100.00	6599.20	42.25 N 44.12 W	0.25
6700.00	1 15	N 48 0 W	100.00	6699.17	43.83 N 45.62 W	0.20
6800.00	1 0	N 61 0 W	100.00	6799.16	44.97 N 47.22 W	0.36
6900.00	1 15	N 58 0 W	100.00	6899.14	45.96 N 48.91 W	0.26
7000.00	1 15	N 48 0 W	100.00	6999.11	47.27 N 50.65 W	0.22
7100.00	1 30	N 52 0 W	100.00	7099.08	48.82 N 52.49 W	0.27
7200.00	1 15	N 51 0 W	100.00	7199.05	50.31 N 54.37 W	0.25
7300.00	1 0	N 54 0 W	100.00	7299.03	51.51 N 55.93 W	0.26
7400.00	1 15	N 49 0 W	100.00	7399.02	52.73 N 57.46 W	0.27
7500.00	1 0	N 63 0 W	100.00	7499.00	53.75 N 59.13 W	0.45
7600.00	1 30	N 61 0 W	100.00	7598.97	54.69 N 61.10 W	0.52
7700.00	1 45	N 54 0 W	100.00	7698.93	56.21 N 63.49 W	0.32
7800.00	1 30	N 55 0 W	100.00	7798.89	57.86 N 65.80 W	0.25
7900.00	1 45	N 47 0 W	100.00	7898.85	59.64 N 68.00 W	0.34
8000.00	2 0	N 48 0 W	100.00	7998.80	61.85 N 70.41 W	0.25
8100.00	2 0	N 49 0 W	100.00	8098.74	64.16 N 73.02 W	0.03
8200.00	1 0	N 44 0 W	100.00	8198.70	65.96 N 74.92 W	1.01
8300.00	2 15	N 42 0 W	100.00	8298.66	68.04 N 76.86 W	1.25
8400.00	2 0	N 38 0 W	100.00	8398.59	70.88 N 79.24 W	0.29
8500.00	2 15	N 36 0 W	100.00	8498.52	73.84 N 81.47 W	0.26
8600.00	2 0	N 34 0 W	100.00	8598.45	76.88 N 83.60 W	0.26
8700.00	2 15	N 42 0 W	100.00	8698.38	79.79 N 85.88 W	0.39
8800.00	2 0	N 34 0 W	100.00	8798.31	82.71 N 88.16 W	0.39
8900.00	2 15	N 43 0 W	100.00	8898.24	85.61 N 90.46 W	0.42



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HOBBS OFFICE

EXXON COMPANY U.S.A.
STATE F.F. WELL NO. 1
FA COUNTY, NEW MEXICO

DECLINATION : 10.00 JOB NUMBER :
DATE PRINTED : 06-OCT-88
OUR REF. NO. : S01290.4EX

PAGE NO. 5

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	R E C T A N G U L A R C O O R D I N A T E S	DOUGLASS SEVERITY
9000.00	2 15	N 34 0 W	100.00	8998.17	88.68 N 92.91 W	0.35
9100.00	2 0	N 28 0 W	100.00	9098.10	91.86 N 94.81 W	0.33
9200.00	1 45	N 32 0 W	100.00	9198.04	94.69 N 96.45 W	0.28
9300.00	0 45	N 26 0 W	100.00	9298.02	96.60 N 97.51 W	1.01
9400.00	0 30	N 25 0 W	100.00	9398.01	97.58 N 97.98 W	0.25
9500.00	0 45	N 66 0 W	100.00	9498.00	98.33 N 98.74 W	0.50
9600.00	0 15	N 24 0 E	100.00	9598.00	99.07 N 99.02 W	0.79
9700.00	1 30	N 9 0 E	100.00	9697.99	100.53 N 98.59 W	1.26
9800.00	1 30	N 13 0 E	100.00	9797.95	103.10 N 98.09 W	0.10
9900.00	2 0	N 47 0 E	100.00	9897.91	105.70 N 96.59 W	1.13
10000.00	1 0	N 9 0 E	100.00	9997.87	107.97 N 95.38 W	1.36
10100.00	1 30	N 21 0 E	100.00	10097.85	110.08 N 94.81 W	0.56
10200.00	1 45	N 5 0 E	100.00	10197.81	112.83 N 94.18 W	0.52
10300.00	0 45	N 85 0 E	100.00	10297.78	114.25 N 92.76 W	1.78
10400.00	0 45	S 47 0 E	100.00	10397.77	113.84 N 91.56 W	0.61
10500.00	0 15	S 7 0 E	100.00	10497.77	113.07 N 91.17 W	0.58
10600.00	0 45	S 6 0 E	100.00	10597.76	112.21 N 91.07 W	0.50
10700.00	1 0	S 24 0 W	100.00	10697.75	110.72 N 91.31 W	0.51
10800.00	1 45	S 15 0 W	100.00	10797.72	108.46 N 92.11 W	0.78
10900.00	1 45	S 29 0 W	100.00	10897.68	105.63 N 93.25 W	0.43
11000.00	1 15	S 38 0 W	100.00	10997.64	103.45 N 94.69 W	0.55
11100.00	1 45	S 49 0 W	100.00	11097.61	101.56 N 96.49 W	0.57
11200.00	1 30	S 40 0 W	100.00	11197.57	99.53 N 98.47 W	0.36
11300.00	1 30	S 35 0 W	100.00	11297.53	97.46 N 100.07 W	0.13
11400.00	1 30	S 36 0 W	100.00	11397.50	95.33 N 101.59 W	0.03
11443.00	1 45	S 32 0 W	43.00	11440.48	94.32 N 102.27 W	0.64

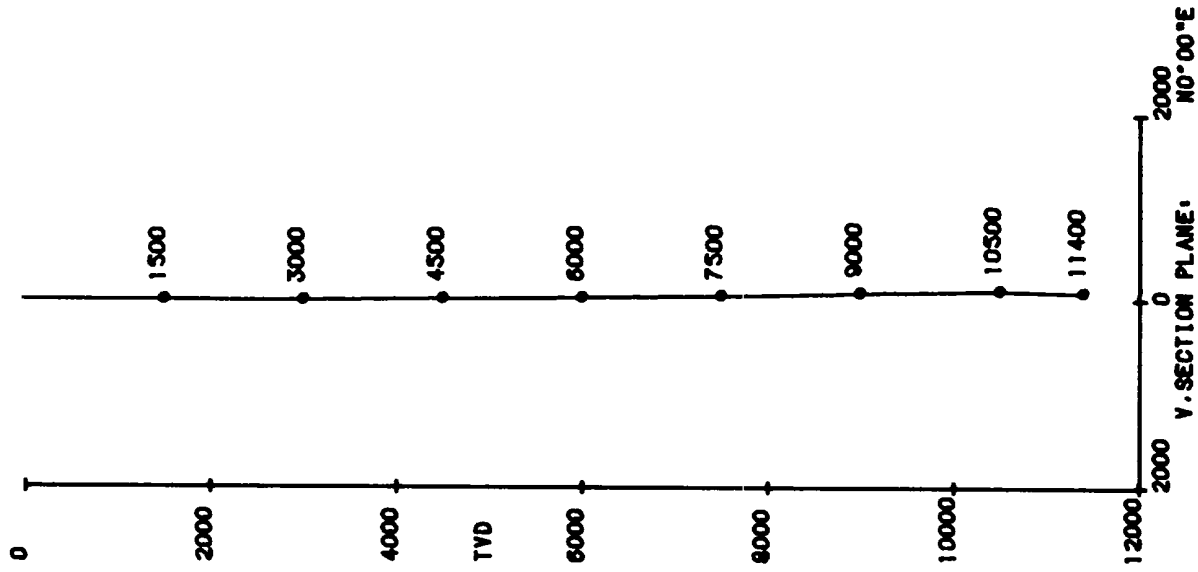
CLOSURE - DISTANCE : 139.12
DIRECTION : N 47 19 W

REPORT UNITS : Feet
SURVEY CALCULATION METHOD : Radius of curvature



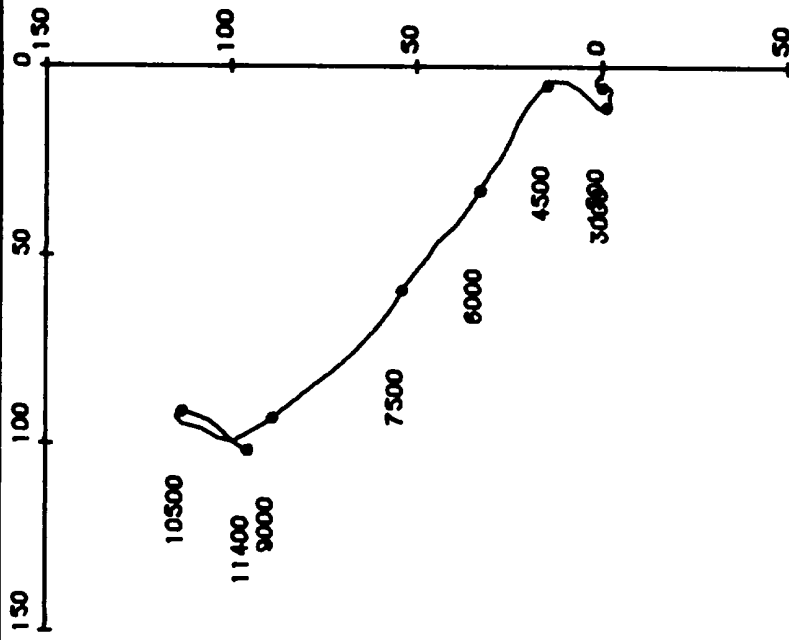
SURVEY RUN INFORMATION
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GYROSCOPIC MULTI-SHOT SURVEY	430-905
SURVEYOR: TIM STEPHENS	(0°-4200')
MAGNETIC MULTI-SHOT SURVEY	430-905
SURVEYOR: TIM STEPHENS	(4200'-11,443')



SURVEY: S01290.4EX

SCALE 1"=2000FT.



SCALE 1"=50FT.
NOTE: COORDINATES RELATIVE TO SLOT

EXXON COMPANY U.S.A.

STATE F.F. WELL NO. 1
LEA COUNTY, NEW MEXICO

WELL: STATE F.F. 1

SLOT: 1



EASTMAN CHRISTENSEN

2103 Market, Midland, Texas 79703, Phone: (915) 694-9517, (915) 563-0511

SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

I, TIM STEPHENS, in the employ of Eastman Christensen, Inc. did on the days of OCTOBER 6, 1988 thru OCTOBER 6, 1988 conduct or supervise the taking of a MAGNETIC MULTI-SHOT survey by the method of magnetic orientation from a depth of 4200 feet to 11,443 feet, with recordings of inclination and direction being obtained at approximate intervals of 100 feet.

This survey was conducted at the request of EXXON COMPANY U.S.A. for their STATE F.F. NO. 1, LEA County, State of NEW MEXICO, in the _____ field.

This data for this survey and the calculation were obtained and performed by me according to standards and procedures as set forth by Eastman Christensen, Inc. and is true and correct to the best of my knowledge.

Tim Stephens
Directional Supervisor/Surveyor

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Christensen, Inc.

[Signature]

Before me, the undersigned authority, on this day personally appeared _____, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that this instrument is a true statement of facts therein recited.

Subscribed and sworn to before me on this _____ day of _____, 19____

Notary Public in and for the
County of Midland, Texas
My commission expires _____

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MOBBS OFFICE