



**REPORT  
of  
SUB-SURFACE  
DIRECTIONAL  
SURVEY**

Shell Oil Company  
COMPANY

North Hobbs Unit Well No. 33-432  
WELL NAME

Lea County, New Mexico  
LOCATION

**JOB NUMBER**

WT1183-G0131  
WT1183-S0152

**TYPE OF SURVEY**

Gyroscopic Multi Shot  
Magnetic Multi Shot

**DATE**

11/09/83  
11/22/83

**SURVEY BY**

Troy Oney

**OFFICE**

West Texas

SHELL OIL COMPANY  
NORTH HOBBS UNIT WELL NO. 33-432  
LEA COUNTY, NEW MEXICO BD1-125  
NOVEMBER 10, 1983

EASTMAN WHIPSTOCK, INC.  
GYROSCOPIC MULTI SHOT SURVEY  
SURVEYOR: TROY ONEY  
MAGNETIC MULTI SHOT SURVEY  
SURVEYOR: TROY ONEY

WT1183-G0131  
(0'-1560')  
WT1183-S0152  
(1560'-4430')

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL  
DIRECTION: S 30 DEG. 20 MIN. W

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O R D I N A T E S FEET	DOGLEG SEVERITY DG/100FT
0.	0 0	0	0.	0.00	0.00	0.00	0.00
100.	0 30	S 69 W	100.	100.00	0.34	0.16 S	0.50
200.	0 30	S 65 W	100.	199.99	1.04	0.50 S	0.03
300.	0 30	S 33 W	100.	299.99	1.86	1.06 S	0.28
400.	0 30	S 29 W	100.	399.99	2.73	1.81 S	0.03
500.	0 15	S 2 W	100.	499.99	3.36	2.44 S	0.30
600.	0 45	S 17 E	100.	599.98	4.04	3.30 S	0.52
700.	1 0	S 9 W	100.	699.97	5.29	4.81 S	0.46
800.	1 0	S 28 W	100.	799.95	6.99	6.45 S	0.33
900.	0 15	S 3 E	100.	899.95	8.02	7.51 S	0.80
1000.	0 30	S 13 W	100.	999.95	8.61	8.16 S	0.27
1100.	0 30	S 78 W	100.	1099.94	9.41	8.74 S	0.54
1200.	0 0	0	100.	1199.94	9.70	8.83 S	0.50
1300.	0 0	0	100.	1299.94	9.70	8.83 S	0.00
1400.	0 30	S 32 W	100.	1399.94	10.14	9.20 S	0.50
1500.	1 0	S 44 W	100.	1499.93	11.43	10.23 S	0.52
1560.	1 30	S 54 W	60.	1559.92	12.67	11.08 S	0.91
1641.	1 45	S 65 W	81.	1640.88	14.67	12.25 S	0.49
1703.	1 30	S 65 W	62.	1702.86	16.12	12.99 S	0.40
1765.	1 45	S 76 W	62.	1764.83	17.46	13.58 S	0.64
1827.	1 15	S 73 W	62.	1826.81	18.62	14.01 S	0.82
1889.	2 30	S 56 W	62.	1888.78	20.30	14.88 S	2.19
1952.	5 15	S 40 W	63.	1951.63	24.34	17.72 S	4.65
2014.	5 45	S 40 W	62.	2013.34	30.20	22.27 S	0.81
2076.	6 30	S 39 W	62.	2074.99	36.73	27.38 S	1.22
2138.	7 0	S 38 W	62.	2136.56	43.94	33.08 S	0.83
2169.	7 15	S 37 W	31.	2167.32	47.76	36.13 S	0.90
2231.	8 0	S 35 W	62.	2228.77	55.94	42.79 S	1.28
2293.	8 45	S 35 W	62.	2290.11	64.94	50.18 S	1.21
2355.	9 15	S 35 W	62.	2351.34	74.61	58.13 S	0.81

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOGLEG SEVERITY DG/100FT
2418.	10 0	S 34 W	63.	2413.46	85.11	66.81 S 54.36 W	1.22
2480.	10 45	S 34 W	62.	2474.44	96.26	76.07 S 60.60 W	1.21
2542.	11 30	S 34 W	62.	2535.28	108.20	85.98 S 67.29 W	1.21
2605.	12 0	S 35 W	63.	2596.96	120.99	96.56 S 74.56 W	0.86
2667.	13 0	S 35 W	62.	2657.49	134.37	107.55 S 82.26 W	1.61
2729.	13 45	S 36 W	62.	2717.80	148.65	119.22 S 90.58 W	1.27
2791.	14 45	S 38 W	62.	2777.90	163.81	131.41 S 99.77 W	1.80
2854.	15 45	S 39 W	63.	2838.68	180.21	144.38 S 110.03 W	1.64
2916.	16 30	S 40 W	62.	2898.24	197.21	157.67 S 121.04 W	1.29
2978.	17 15	S 40 W	62.	2957.57	214.95	171.45 S 132.60 W	1.21
3040.	18 0	S 39 W	62.	3016.66	233.48	185.94 S 144.54 W	1.30
3102.	18 30	S 40 W	62.	3075.54	252.65	200.92 S 156.89 W	0.95
3164.	19 15	S 39 W	62.	3134.20	272.45	216.40 S 169.65 W	1.32
3227.	20 0	S 38 W	63.	3193.54	293.40	232.96 S 182.82 W	1.30
3289.	20 45	S 38 W	62.	3251.66	314.79	249.97 S 196.11 W	1.21
3351.	20 45	S 37 W	62.	3309.64	336.58	267.39 S 209.49 W	0.57
3413.	20 15	S 37 W	62.	3367.72	358.15	284.73 S 222.55 W	0.81
3475.	20 0	S 39 W	62.	3425.93	379.29	301.54 S 235.69 W	1.18
3538.	19 15	S 40 W	63.	3485.27	400.18	317.87 S 249.14 W	1.30
3600.	19 0	S 41 W	62.	3543.85	420.17	333.32 S 262.34 W	0.66
3662.	18 45	S 41 W	62.	3602.51	439.88	348.45 S 275.49 W	0.40
3724.	17 0	S 32 W	62.	3661.52	458.78	363.73 S 286.80 W	5.27
3786.	15 15	S 32 W	62.	3721.08	475.99	378.34 S 295.93 W	2.82
3848.	13 45	S 34 W	62.	3781.10	491.50	391.35 S 304.38 W	2.55
3910.	12 30	S 34 W	62.	3841.48	505.55	403.03 S 312.25 W	2.02
3973.	11 0	S 35 W	63.	3903.16	518.34	413.60 S 319.52 W	2.40
4035.	10 15	S 35 W	62.	3964.09	529.74	422.96 S 326.08 W	1.21
4097.	10 0	S 35 W	62.	4025.13	540.60	431.89 S 332.33 W	0.40
4159.	9 15	S 35 W	62.	4086.26	550.93	440.38 S 338.27 W	1.21
4221.	8 45	S 35 W	62.	4147.49	560.60	448.33 S 343.84 W	0.81

SHELL OIL COMPANY  
NORTH HOBBS UNIT WELL NO. 33-432  
LEA COUNTY, NEW MEXICO B01-125

PAGE NO. 3

COMPUTATION  
TIME DATE  
13:34:21 28-NOV-83

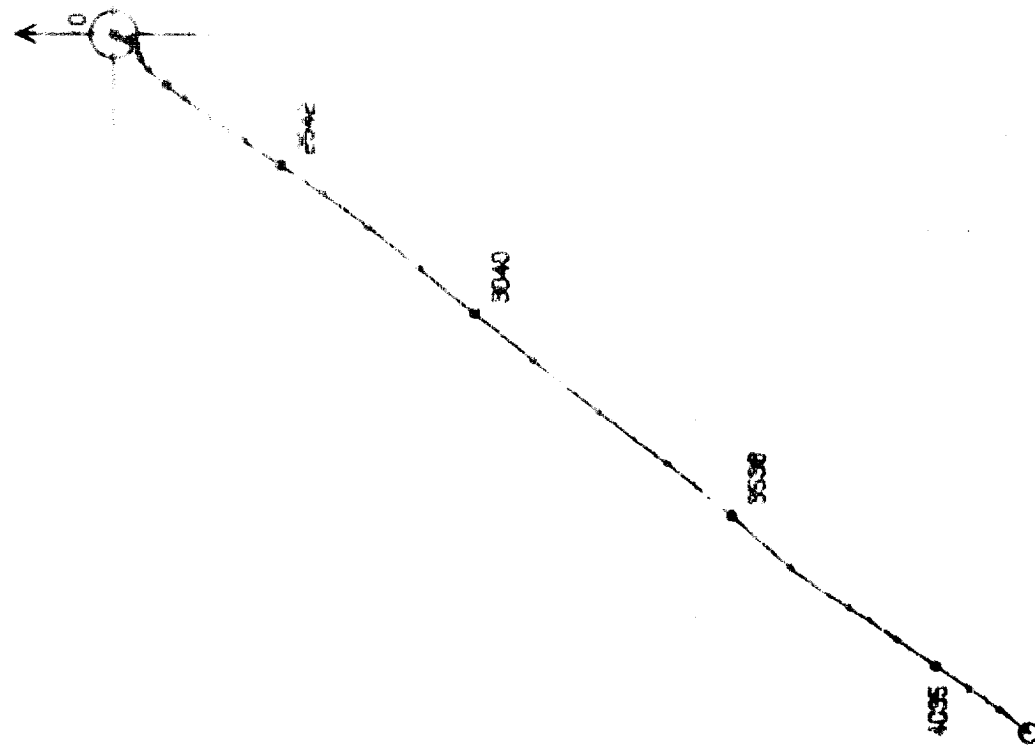
MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOGLEG SEVERITY DG/100FT
4284.	8 0	S 38 W	63.	4209.82	569.72	455.70 S 349.29 W	1.38
4346.	7 45	S 37 W	62.	4271.23	578.15	462.44 S 354.47 W	0.46
4408.	7 15	S 39 W	62.	4332.70	586.17	468.82 S 359.45 W	0.91
4430.	7 0	S 40 W	22.	4354.53	588.86	470.92 S 361.18 W	1.27

FINAL CLOSURE - DIRECTION: S 37 DEGS 29 MINS W  
DISTANCE: 593.48 FEET

SHELL OIL COMPANY  
NORTH HOBBS UNIT WELL NO. 33-432  
LEA COUNTY, NEW MEXICO 801-125

EASTMAN WHIPSTOCK, INC.

HORIZONTAL PROJECTION  
SCALE 1 IN. = 100 FEET  
DEPTH INDICATOR: MD



FINAL STATION:  
DEPTH 4430 MD. 4304.50 LVD  
SOUTH 470.92 WE S 36 1 18  
CLOSURE 583.48 S 37 28 13 W



P. O. Box 5577/Midland, Texas 79704/(915) 563-0511

SURVEY CERTIFICATION SHEET

STATE OF TEXAS  
COUNTY OF MIDLAND

I, Troy Oney, in the employ of Eastman Whipstock, Inc., did on the days of 11-9, 19 83 thru 11-10, 19 83 conduct or supervise the taking of a Gyroscopic Multi Shot survey by the method of magnetic orientation from a depth of 0 feet to 1560 feet, with recordings of inclination and direction being obtained at approximate intervals of 100 feet.

This survey was conducted at the request of Shell Oil Company for their North Hobbs Unit Well No. 33-432 Lea County 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 Whipstock, Inc. and is true and correct to the best of my knowledge.

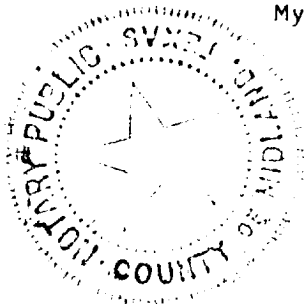
Roy Oney  
Directional Supervisor/Surveyor

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

Before me, the undersigned authority, on this day personally appeared Troy Oney, 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 28TH day of NOV, 19 83

Roy W. Steink  
Notary Public in and for the  
County of Midland, Texas  
My commission expires 7/9/85





P. O. Box 5577/Midland, Texas 79704/(915) 563-0511

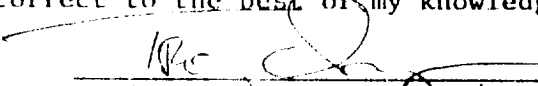
SURVEY CERTIFICATION SHEET

STATE OF TEXAS  
COUNTY OF MIDLAND


I, Troy Oney, in the employ of Eastman Whipstock, Inc., did on the days of 11-21, 19 83 thru 11-22, 19 83 conduct or supervise the taking of a Magnetic Multi Shot survey by the method of magnetic orientation from a depth of 1560 feet to 4430 feet, with recordings of inclination and direction being obtained at approximate intervals of 62 feet.

This survey was conducted at the request of Shell Oil Company for their North Hobbs Unit Well No. 33-432 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 Whipstock, Inc. and is true and correct to the best of my knowledge.

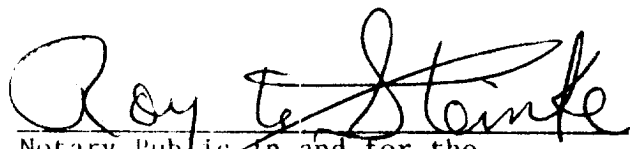
  
\_\_\_\_\_  
Directional Supervisor/ Surveyor

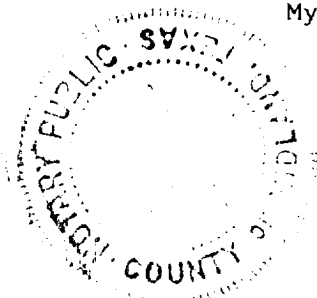
The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Whipstock, Inc.

  
\_\_\_\_\_  
Tim Stephens

Before me, the undersigned authority, on this day personally appeared Troy Oney, 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 28<sup>TH</sup> day of NOV., 19 83

  
\_\_\_\_\_  
Notary Public in and for the  
County of Midland, Texas  
My commission expires 7/9/85





NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Lessee <b>SHELL OIL CO.</b>		Lease <b>NORTH HOBBS UNIT</b>		Well No. <b>33-432</b>
Section <b>I</b>	Section <b>33</b>	Township <b>18 SOUTH</b>	Range <b>38 EAST</b>	County <b>LEA</b>
Location of Well: <div style="display: flex; justify-content: space-between;"> <span>1842</span> <span>SOUTH</span> <span>1029</span> <span>EAST</span> </div> <div style="display: flex; justify-content: space-between; font-size: small;"> <span>feet from the</span> <span>line and</span> <span>feet from the</span> <span>line</span> </div>				
Produced Elev. <b>3629.9</b>	Producing Formation <b>GRAYBURG/SAN ANDRES</b>	Foot <b>HOBBS (GRAYBURG/SAN ANDRES)</b>	Drillers Address	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes   ☐ No   If answer is "yes," type of consolidation UNITIZATION

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

	<b>CERTIFICATION</b>  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
	Name <u>A. J. EORE</u> Position <u>SUPERVISOR REG. &amp; PERMITTING</u> Company <u>SHELL OIL COMPANY</u> Date _____
	I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
	Date Surveyed <u>5-7-81</u>  Registered Surveyor and Land Surveyor  Certificate No. <u>JOHN W. WEST 679</u> <u>PATRICK A. ROMERO 6865</u> <u>Ronald J. Eidson 3239</u>