

COUNTY LEA FIELD Langlie-Mattix STATE NM
 OPR GULF OIL CORP. API 30-025-27551
 NO 12 LEASE Arnott-Ramsey (NCT-B) MAP
 Sec 32, T25S, R37E COORD
 500 FSL, 1480 FEL of Sec 4-2-28 NM
 2 mi S/Jal SPD 1-13-82 CMP 3-18-82

Csg		WELL CLASS: INIT D FIN DO LSE CODE			
		FORMATION	DATUM	FORMATION	DATUM
8	5/8-350-225 sx				
5	1/2-3618-1000 sx				
2	3/8-3411				
		TD 3620 (QUEN)		PBD 3573	

IP (Queen) Perfs 3326-84 F 17 BOPD + 12 BW. Pot based on 24
 hr test thru 24/64 chk. GOR 26,765; gty 29.3; CP 120, TP
 70

Cactus #18

2982 GL, 2993 KB sub-s 10

F.R. 8-31-81
 PD 3500 RT
 11-9-81 AMEND LOCATION: Formerly reported as 500 FSL,
 1400 FEL of Sec
 1-19-82 Drlg 1429 salt & anhy
 mw 10.1, vis 29
 1-26-82 Drlg 2942 lm & sh
 mw 10, vis 39
 2-1-82 TD 3620; Rng csg
 Drlg break 3330-45
 2-5-82 TD 3620; WOCU
 3-8-82 TD 3620; PBD 3573; Tstg
 Perf (Queen) 3326-30, 3361-65, 3380-84 w/2 SPF
 Acid (3326-84) 1800 gals
 Frac (3326-84) 26,000 gals + 39,000# sd
 3-15-82 TD 3620; PBD 3573; SI

4-2-28 NM

LEA
GULF OIL CORP.

Langlie-Mattix
12 Arnott-Ramsey (NCT-B)
Sec 32, T25S, R37E

NM
Page #2

3-23-82 TD 3620; PBD 3573; WOSP
Flwd 17 BO + 12 BW + 455 MCFGPD in 24 hrs
(3326-84)
4-5-82 TD 3620; PBD 3573; Complete
LOG TOPS: Salt 1080; Base Salt 2572, Yates
2722, Seven Rivers 2989, Queen 3404
LOGS RUN: FRXL, GRDL, CNDL, GRL, CCL
BHT 105 deg @ 3180
Rig Released 2-2-82
4-10-82 COMPLETION ISSUED

4-2-28 NM
IC 30-025-70469-81

Bottom Hole Location

611 FSL

749 FEL

OK Paul

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SUB-SURFACE DIRECTIONAL SURVEY REPORT

GULF OIL COMPANY

COMPANY

ARNOTT RAMSAY(NCT-B), WELL NO. 12

WELL NAME

LEA COUNTY, NEW MEXICO

LOCATION

January-February, 1982

DATE

DIRECTIONAL ENTERPRISES, INC.

205 Hutchinson Road
Youngsville, Louisiana 70592

PHONE: (318) 837-9803

GULF OIL EXPLORATION & PRODUCTION CO.
 ARNOTT RAMSAY(NCT) B, WELL NO. 12
 LEA COUNTY, NEW MEXICO
 SINGLE SHOT DIRECTIONAL SURVEY
 JANUARY, 1982
 TRUE CORRECTION 10 DEGREES EAST

DIRECTIONAL ENTERPRISES, INC.
 P. O. DRAWER C
 YOUNGSVILLE, LOUISIANA 70592
 PHONE: (318) 837-9803

IT IS CERTIFIED THAT TO THE BEST OF OUR
 KNOWLEDGE THIS IS A TRUE AND CORRECT
 REPRESENTATION OF THE WELL AT THE TIME
 THE SURVEY WAS RUN. ~~XXXXXXXXXX~~

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

MEAS DEPTH	TRUE VERT DEPTH	ANGLE OF INCL		COURSE DIRECTION	DOG LEG	DEG PER 100	R E C T A N G U L A R C O O R D I N A T E S	C L O S U R E S DISTANCE	A N G L E D M S	V E R T I C A L S E C T I O N
		D	M							
700.	700.00	2	45	N 7 0 E			8.11 N	4.52 E		
TIE-IN = GYRO SURVEY/SPERRY SUN										
775.	774.91	3	0	N 11 0 E		0.43	11.82 N	5.11 E	N 23 21 52 E	6.82
837.	836.79	4	0	N 15 0 E		1.66	15.51 N	5.96 E	N 21 0 59 E	8.21
866.	865.70	4	45	N 20 0 E		2.90	17.62 N	6.62 E	N 20 36 13 E	9.19
897.	896.59	5	0	N 21 0 E		0.85	20.09 N	7.55 E	N 20 35 27 E	10.47
959.	958.29	6	15	N 25 0 E		2.11	25.68 N	9.92 E	N 21 7 20 E	13.65
1021.	1019.88	7	0	N 34 0 E		2.06	31.90 N	13.44 E	N 22 50 45 E	18.06
1114.	1111.91	9	30	N 73 0 E		6.43	39.69 N	23.96 E	N 31 7 18 E	29.63
1187.	1183.49	13	0	N 82 0 E		5.35	42.76 N	37.85 E	N 41 30 36 E	43.82
1235.	1229.76	17	45	N 80 0 E		9.96	44.75 N	50.41 E	N 48 24 11 E	56.55
1397.	1384.05	17	45	N 81 0 E		0.19	52.91 N	99.12 E	N 61 54 34 E	105.93
1581.	1559.29	17	45	N 82 0 E		0.17	61.20 N	154.60 E	N 68 24 16 E	162.02
1769.	1738.22	18	0	N 83 0 E		0.21	68.73 N	211.81 E	N 72 1 22 E	219.72
1891.	1854.41	17	30	N 82 0 E		0.48	73.58 N	248.69 E	N 73 31 1 E	256.90

[illegible]

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MEAS DEPTH	TRUE VERT DEPTH	ANGLE OF INCL D M	COURSE DIRECTION D M	DOG LEG DEG PER 100	R E C T A N G U L A R		C L O S U R E DISTANCE	A N G L E		VERTICAL SECTION
					C O O R D I N A T E S			D	M S	
2015.	1972.75	17 15	N 83 0 E	0.31	78.42 N	285.40 E	295.98	N 74 38	11 E	293.92
2140.	2092.13	17 15	N 84 0 E	0.24	82.61 N	322.23 E	332.65	N 75 37	12 E	330.97
2297.	2242.17	17 0	N 83 0 E	0.25	87.85 N	368.16 E	378.50	N 76 34	46 E	377.16
2421.	2360.67	17 15	N 85 0 E	0.52	91.66 N	404.47 E	414.73	N 77 13	52 E	413.64
2607.	2538.30	17 15	N 85 0 E	0.00	96.47 N	459.42 E	469.44	N 78 8	28 E	468.68
2700.	2627.24	16 45	N 86 0 E	0.62	98.60 N	486.52 E	496.42	N 78 32	35 E	495.80
2794.	2717.31	16 30	N 86 0 E	0.27	100.48 N	513.35 E	523.09	N 78 55	31 E	522.61
2952.	2869.09	15 45	N 87 0 E	0.51	103.16 N	557.15 E	566.62	N 79 30	37 E	566.32
3107.	3018.37	15 30	N 87 0 E	0.16	105.34 N	598.84 E	608.04	N 80 1	23 E	607.86
3291.	3195.89	15 0	N 87 0 E	0.27	107.88 N	647.17 E	656.10	N 80 32	11 E	656.03
3429.	3329.18	15 0	N 88 0 E	0.19	109.43 N	682.86 E	691.57	N 80 53	42 E	691.54
3522.	3419.01	15 0	N 88 0 E	0.00	110.27 N	706.91 E	715.46	N 81 8	1 E	715.45
3615.	3508.85	15 0	N 90 0 E	0.56	110.69 N	730.98 E	739.31	N 81 23	20 E	739.31

VERTICAL SECTION COMPUTED ON BOTTOM HOLE CLOSURE
 BOTTOM HOLE CLOSURE = 739.31 AT N 81 23 20 E

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 PHONE: (318) 837-9803

RECORD OF SURVEY			
RADIUS OF CURVATURE METHOD			
COMPUTED AT EACH 100 FEET OF TVD			
TRUE VERTICAL DEPTH	MEASURED DEPTH	RECTANGULAR	COORDINATES
700.	700.00	8.11 N	4.52 E
775.	775.00	11.82 N	5.11 E
800.	800.14	13.32 N	5.45 E
900.	900.42	20.40 N	7.68 E
1000.	1000.99	29.89 N	12.30 E
1100.	1101.97	38.68 N	22.60 E
1200.	1204.12	43.47 N	42.33 E
1300.	1308.75	48.47 N	72.59 E
1400.	1413.75	53.66 N	104.17 E
1500.	1518.74	58.39 N	135.83 E
1600.	1623.77	62.91 N	167.62 E
1700.	1728.84	67.12 N	199.59 E
1800.	1833.87	71.31 N	231.42 E
1900.	1938.77	75.45 N	262.83 E
2000.	2043.53	79.37 N	293.81 E
2100.	2148.24	82.89 N	324.64 E
2200.	2252.88	86.38 N	355.25 E
2300.	2357.52	89.71 N	385.88 E
2400.	2462.18	92.73 N	416.64 E
2500.	2566.89	95.43 N	447.57 E

TRUE VERTICAL DEPTH	MEASURED DEPTH	RECTANGULAR	COORDINATES
2600.	2671.52	97.95 N	478.22 E
2700.	2775.93	100.12 N	508.20 E
2800.	2880.08	101.94 N	537.21 E
2900.	2984.09	103.61 N	565.78 E
3000.	3087.93	105.07 N	593.71 E
3100.	3191.61	106.51 N	621.07 E
3200.	3295.26	107.92 N	648.28 E
3300.	3398.79	109.09 N	675.04 E
3400.	3502.32	110.10 N	701.82 E
3500.	3605.84	110.65 N	728.61 E
3509.	3615.00	110.69 N	730.98 E

VERTICAL SECTION OF CLOSURES

Scale: 1" = 100'

700'

1000'

1500'

2000'

2500'

3000'

3500'

3509'

BOTTOM HOLE CLOSURE = 739' AT N-81°23'-E

SFC = 500' FSL
1480' FEL

BHL = 611' FSL
749' FEL

SEC SECTION 32
Scale: 1" = 1000'

BOTTOM HOLE LOCATION
DEPTH = 3615' MD
3509' TVD
NORTH = 111'
EAST = 731'
CLOSURE = 739' AT N-81°23'-E

SURFACE
LOCATION

HORIZONTAL PROJECTION

Scale: 1" = 100'

2297'

2607'

2700'

2774'

2952'

3161'

3291'

3400'

3615' MD

TRUE NORTH

DECL. 10° EAST

**GULF OIL EXPLORATION
&
PRODUCTION COMPANY**

ARNOTT RAMSAY(NCT) "B"
WELL NO. 12

SECTION 32-T. 25 S.-R. 37 E.
LEA COUNTY, NEW MEXICO

Directional Enterprises, Inc.