

SURVEY REPORT
STRATA DIRECTIONAL
STIVASON FEDERAL #4

LEA COUNTY, NEW MEXICO
DISTRICT ONE

SEPTEMBER 19, 2001



A Gyrodata Directional Survey

for

Strata Directional Technology

Well: STIVASON FEDERAL #4, 5-1/2" CASING
Location: SCHLUMBERGER CRANE, LEA COUNTY, NEW MEXICO

Job Number: MD0401GME181

Run Date: 4/10/01

Surveyor: Tom Morren

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.625710 deg. N

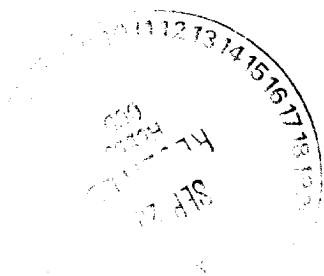
Azimuth Correction:

Gyro: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference



A Gyrodata Directional Survey

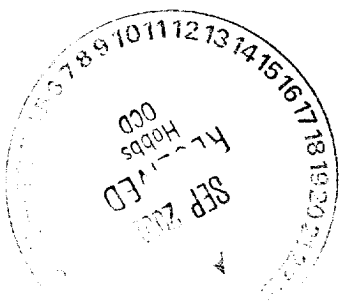
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MEASURED DEPTH feet	I N C L deg.	A Z I M U T H deg.	B O R E H O L E B E A R I N G deg. min.	D O G L E G S E V E R I T Y deg./ 100 ft.	V E R T I C A L D E P T H feet	C L O S U R E D I S T. A Z I M U T H feet deg.	H O R I Z O N T A L C O O R D I N A T E S feet
0.0	0.00	0.00	N 0 0 E	0.00	0.0	0.0 0.0	0.00 N 0.00 E
0 - 5067 FT RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 5-1/2" CASING ALL MEASUREMENTS AND COORDINATES REFERENCED TO STIVASON FED #4 R.K.B.							
200.0	0.29	190.20	S 10 12 W	0.15	200.0	0.5 190.2	0.50 S 0.09 W
400.0	0.17	188.96	S 8 58 W	0.06	400.0	1.3 189.9	1.31 S 0.23 W
600.0	0.70	227.44	S 47 27 W	0.29	600.0	2.7 205.8	2.43 S 1.17 W
800.0	0.76	223.32	S 43 19 W	0.04	800.0	5.2 215.2	4.21 S 2.98 W
1000.0	0.58	196.01	S 16 1 W	0.18	1000.0	7.4 214.1	6.15 S 4.17 W
1200.0	0.60	166.74	S 13 16 E	0.15	1200.0	9.2 207.3	8.15 S 4.21 W
1400.0	0.71	156.44	S 23 34 E	0.08	1399.9	10.9 198.6	10.31 S 3.47 W
1600.0	0.74	173.98	S 6 1 E	0.11	1599.9	13.0 192.6	12.73 S 2.84 W
1800.0	0.74	172.82	S 7 11 E	0.01	1799.9	15.5 189.4	15.30 S 2.54 W
2000.0	0.79	149.77	S 30 14 E	0.16	1999.9	17.8 185.4	17.77 S 1.68 W
2200.0	0.82	151.16	S 28 50 E	0.02	2199.9	20.2 180.8	20.21 S 0.30 W
2400.0	0.75	154.77	S 25 14 E	0.04	2399.9	22.7 177.6	22.64 S 0.95 E
2600.0	0.61	160.78	S 19 13 E	0.08	2599.8	24.9 175.7	24.83 S 1.85 E
2800.0	0.82	116.52	S 63 29 E	0.29	2799.8	26.7 172.5	26.46 S 3.48 E
3000.0	1.41	100.07	S 79 56 E	0.33	2999.8	28.5 165.4	27.54 S 7.20 E
3200.0	1.55	90.89	S 89 7 E	0.14	3199.7	30.6 156.2	28.01 S 12.34 E
3400.0	1.55	90.10	S 89 54 E	0.01	3399.6	33.2 147.7	28.06 S 17.76 E
3600.0	1.25	89.68	N 89 41 E	0.15	3599.6	36.1 141.1	28.05 S 22.65 E
3800.0	0.94	100.92	S 79 5 E	0.19	3799.5	38.8 137.0	28.35 S 26.44 E
4000.0	0.57	142.91	S 37 6 E	0.32	3999.5	41.1 135.8	29.45 S 28.65 E



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MEASURED DEPTH feet	I N C L deg.	A Z I M U T H deg.	B O R E H O L E B E A R I N G deg. min.	D O G L E G S E V E R I T Y deg./ 100 ft.	V E R T I C A L D E P T H feet	C L O S U R E D I S T. A Z I M U T H feet deg.	H O R I Z O N T A L C O O R D I N A T E S feet
4200.0	0.63	149.60	S 30 24 E	0.05	4199.5	43.1 136.3	31.19 S 29.80 E
4400.0	0.68	149.89	S 30 7 E	0.03	4399.5	45.4 137.0	33.17 S 30.96 E
4600.0	0.76	150.13	S 29 52 E	0.04	4599.5	47.8 137.7	35.34 S 32.21 E
4800.0	0.55	127.49	S 52 30 E	0.16	4799.5	50.0 137.8	37.07 S 33.63 E
5000.0	0.55	115.36	S 64 39 E	0.06	4999.5	51.9 137.2	38.06 S 35.26 E
5067.0	0.52	107.70	S 72 18 E	0.12	5066.5	52.4 136.9	38.29 S 35.84 E

Final Station Closure: Distance: 52.45 ft Az: 136.90 deg.

