

SURVEY REPORT
STRATA DIRECTIONAL
STIVASON FEDERAL #5

LEA COUNTY, NEW MEXICO
DISTRICT ONE

SEPTEMBER 19, 2001

FOR RECORD ONLY

A Gyrodata Directional Survey

for

Strata Directional Technology

Well: STIVASON FEDERAL #5, 5-1/2" CASING

Location: SCHLUMBERGER CRANE, LEA COUNTY, NEW MEXICO

Job Number: MD0401GME182

Run Date: 4/10/01

Surveyor: Tom Morren

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.625900 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

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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 - 4955 FT RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 5-1/2" CASING							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO SCHLUMBERGER CRANE R.K.B.							

200.0	0.06	249.32	S 69 19 W	0.03	200.0	0.1 249.3	0.04 S 0.11 W
400.0	0.15	260.61	S 80 36 W	0.04	400.0	0.5 255.3	0.12 S 0.46 W
600.0	0.50	322.63	N 37 22 W	0.23	600.0	1.4 293.2	0.54 N 1.25 W
800.0	0.26	254.92	S 74 55 W	0.24	800.0	2.5 296.7	1.12 N 2.23 W
1000.0	0.53	222.31	S 42 19 W	0.17	1000.0	3.3 275.5	0.32 N 3.29 W
1200.0	0.58	211.52	S 31 31 W	0.06	1200.0	4.6 254.6	1.22 S 4.44 W
1400.0	0.71	224.45	S 44 27 W	0.10	1400.0	6.5 243.0	2.97 S 5.83 W
1600.0	0.69	218.84	S 38 50 W	0.04	1600.0	8.9 237.3	4.79 S 7.46 W
1800.0	0.65	208.62	S 28 37 W	0.06	1799.9	11.0 232.5	6.73 S 8.75 W
2000.0	0.81	132.19	S 47 48 E	0.45	1999.9	12.0 223.6	8.67 S 8.26 W
2200.0	0.80	130.75	S 49 15 E	0.01	2199.9	12.2 210.4	10.52 S 6.16 W
2400.0	0.85	110.45	S 69 33 E	0.15	2399.9	12.5 197.3	11.95 S 3.72 W
2600.0	1.01	120.05	S 59 57 E	0.11	2599.9	13.4 183.5	13.34 S 0.82 W
2800.0	1.08	112.81	S 67 11 E	0.08	2799.8	15.2 170.7	14.95 S 2.45 E
3000.0	2.26	93.30	S 86 42 E	0.64	2999.7	17.9 152.9	15.92 S 8.13 E
3200.0	2.74	83.38	N 83 23 E	0.32	3199.5	22.9 132.8	15.59 S 16.81 E
3400.0	2.42	77.01	N 77 1 E	0.21	3399.3	29.3 118.8	14.09 S 25.67 E
3600.0	1.08	93.71	S 86 17 E	0.71	3599.3	34.3 112.7	13.26 S 31.66 E
3800.0	0.49	101.77	S 78 14 E	0.30	3799.2	36.9 111.5	13.56 S 34.37 E
4000.0	0.39	258.96	S 78 58 W	0.43	3999.2	37.2 111.9	13.86 S 34.54 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	0.53	227.87	S 47 52 W	0.14	4199.2	36.3 113.8	14.62 S 33.18 E
4400.0	0.83	239.87	S 59 52 W	0.16	4399.2	35.1 117.1	15.97 S 31.24 E
4600.0	0.73	240.97	S 60 58 W	0.05	4599.2	33.7 121.0	17.32 S 28.87 E
4800.0	0.76	242.38	S 62 23 W	0.02	4799.2	32.4 124.9	18.55 S 26.59 E
4955.0	0.79	248.06	S 68 4 W	0.05	4954.2	31.4 128.2	19.42 S 24.69 E

Final Station Closure: Distance: 31.41 ft Az: 128.19 deg.