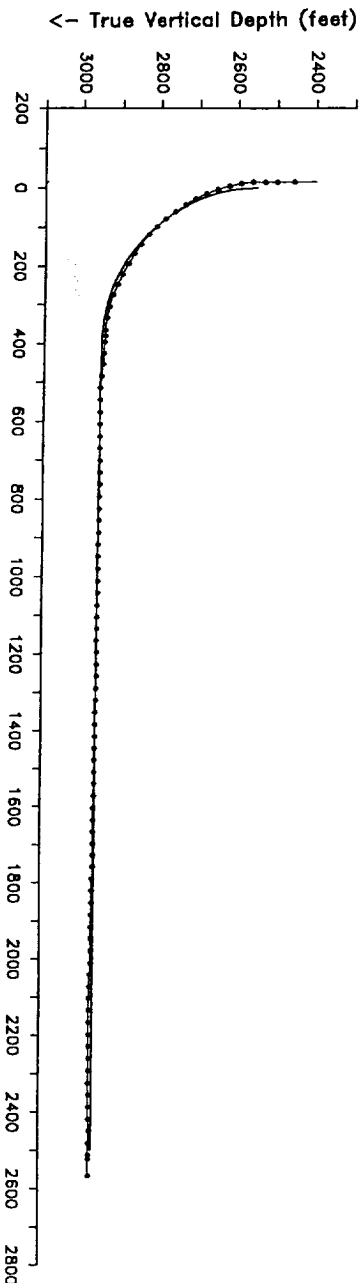
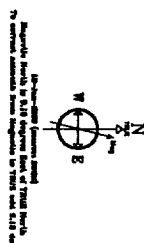


QUEEN SAND OPERATING COMPANY

Structure : DQSU No.57
Field : CAPROCK

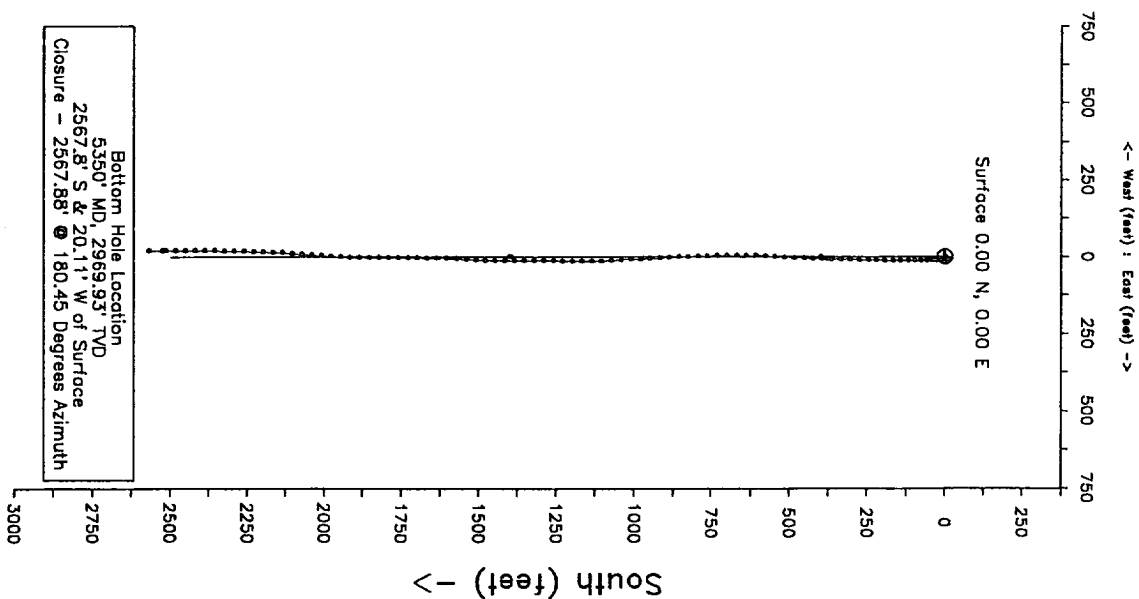
Slot : slot #1
Location : CHAVES COUNTY, NEW MEXICO

SUR: A-15-14s.31e 140/n @ 330/E
BHL: I-15-14s.31e 2708/n @ 350/E
30-005 - 21154



Vertical Section (feet) -->

Azimuth 180.00 with reference 0.00 N, 0.00 E from slot #1



Surface 0.00 N, 0.00 E

Bottom Hole Location
5350' MD, 2969.93' TVD
2567.8' S & 20.1' W of Surface
Closure - 2567.88' @ 180.45 Degrees Azimuth

Created by borkw

Date plotted : 31-Jan-2000

Pilot Reference is 14.3 Deg BUR.

Coordinates are in feet reference slot #1.

True Vertical Depths are reference rotary table.

--- Baker Hughes INTEQ ---

QUEEN SAND OPERATING COMPANY
DQSU No.57

slot #1
CAPROCK
CHAVES COUNTY, NEW MEXICO

S U R V E Y L I S T I N G

by
Baker Hughes INTEQ

Your ref : Gyro/MWD
Our ref : svy1350
License :

Date printed : 31-Jan-2000
Date created : 31-Jan-2000
Last revised : 31-Jan-2000

Field is centred on n33 5 0.000,w103 55 0
Structure is centred on n33 5 0.000,w103 55 0

Slot location is n33 5 0.000,w103 55 0.000
Slot Grid coordinates are N 758084.198, E 627623.269
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico East (3001), Spheroid: Clarke - 1866
Reference North is True North

QUEEN SAND OPERATING COMPANY
 DOSU No.57, slot #1
 CAPROCK, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 1
 Your ref : Gyro/MWD
 Last revised : 31-Jan-2000

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00
100.00	0.54	37.65	100.00	0.37 N	0.29 E	-0.37
200.00	0.45	36.98	199.99	1.06 N	0.81 E	-1.06
300.00	0.41	54.87	299.99	1.58 N	1.34 E	-1.58
400.00	0.47	57.92	399.99	2.00 N	1.98 E	-2.00
500.00	0.49	58.58	499.99	2.44 N	2.69 E	-2.44
600.00	0.47	57.88	599.98	2.88 N	3.41 E	-2.88
700.00	0.31	58.04	699.98	3.25 N	3.98 E	-3.25
800.00	0.15	40.47	799.98	3.49 N	4.30 E	-3.49
900.00	0.39	62.98	899.98	3.74 N	4.69 E	-3.74
000.00	0.55	78.40	999.97	3.99 N	5.46 E	-3.99
100.00	0.66	66.15	1099.97	4.32 N	6.46 E	-4.32
200.00	0.78	80.83	1199.96	4.67 N	7.65 E	-4.67
300.00	0.50	78.49	1299.95	4.86 N	8.75 E	-4.86
400.00	0.29	55.69	1399.95	5.09 N	9.39 E	-5.09
500.00	0.35	49.64	1499.95	5.43 N	9.83 E	-5.43
600.00	0.37	18.83	1599.95	5.93 N	10.17 E	-5.93
700.00	0.59	11.86	1699.95	6.74 N	10.38 E	-6.74
800.00	0.77	356.74	1799.94	7.92 N	10.45 E	-7.92
900.00	0.75	2.09	1899.93	9.24 N	10.43 E	-9.24
1000.00	0.60	11.20	1999.92	10.41 N	10.56 E	-10.41
1100.00	0.65	14.07	2099.92	11.47 N	10.80 E	-11.47
1200.00	0.76	0.89	2199.91	12.69 N	10.95 E	-12.69
1300.00	0.65	6.60	2299.90	13.91 N	11.02 E	-13.91
1400.00	0.55	13.55	2399.90	14.94 N	11.20 E	-14.94

All data is in feet unless otherwise stated.
 Coordinates from slot #1 and TVD from rotary table.
 Bottom hole distance is 2567.88 on azimuth 180.45 degrees from wellhead.
 Vertical section is from N 0.00 E 0.00 on azimuth 180.00 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes INTEQ

QUEEN SAND OPERATING COMPANY
 DOSU No.57, Slot #1
 CAPROCK, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 2
 Your ref : Gyro/MWD
 Last revised : 31-Jan-2000

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
457.00	0.40	313.60	2456.89	15.35 N	0.86	-15.35
501.00	0.40	2.80	2500.89	15.61 N	0.76	-15.61
532.00	0.50	172.30	2531.89	15.58 N	2.89	-15.58
563.00	3.90	179.30	2562.87	14.39 N	10.98	-14.39
594.00	8.20	178.20	2593.69	11.13 N	13.88	-11.13
625.00	13.00	179.60	2624.15	5.43 N	11.25 E	-5.43
657.00	18.10	178.20	2654.97	3.15 S	11.43 E	3.15
687.00	23.10	178.60	2683.04	13.69 S	11.72 E	13.69
718.00	28.10	177.50	2710.99	27.08 S	12.18 E	27.08
749.00	32.70	178.60	2737.72	42.75 S	12.71 E	42.75
780.00	34.40	180.00	2763.55	59.88 S	12.91 E	59.88
811.00	37.90	180.00	2788.58	78.16 S	12.91 E	78.16
841.00	42.40	179.30	2811.51	97.50 S	13.04 E	97.50
871.00	47.90	180.00	2832.66	118.76 S	13.16 E	118.76
902.00	53.40	180.70	2852.30	142.72 S	13.01 E	142.72
931.00	57.70	181.40	2868.71	166.63 S	12.57 E	166.63
962.00	61.00	181.40	2884.51	193.28 S	11.91 E	193.28
993.00	63.10	181.70	2899.04	220.66 S	11.17 E	220.66
1022.00	66.20	181.40	2911.45	246.85 S	10.47 E	246.85
1052.00	70.20	181.70	2922.59	274.69 S	9.71 E	274.69
1083.00	75.60	181.40	2931.70	304.30 S	8.91 E	304.30
1113.00	81.70	181.00	2937.60	333.69 S	8.30 E	333.69
1144.00	85.50	181.70	2941.06	364.48 S	7.57 E	364.48
1159.00	86.50	181.70	2942.10	379.44 S	7.13 E	379.44
1175.00	86.90	181.70	2943.02	395.41 S	6.65 E	395.41

All data is in feet unless otherwise stated.
 Coordinates from slot #1 and TVD from rotary table.
 Bottom hole distance is 2567.88 on azimuth 180.45 degrees from wellhead.
 Vertical section is from N 0.00 E 0.00 on azimuth 180.00 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes INTEQ

QUEEN SAND OPERATING COMPANY
 DQSU No.57, slot #1
 CAPROCK, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 3
 Your ref : Gyro/MWD
 Last revised : 31-Jan-2000

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
205.00	85.50	181.40	2945.01	425.33 S	5.84 E	4.77
233.00	84.00	181.40	2947.57	453.20 S	5.16 E	5.36
264.00	85.30	182.80	2950.47	484.04 S	4.03 E	6.15
295.00	86.20	182.80	2952.76	514.92 S	2.52 E	2.90
326.00	88.50	184.60	2954.20	545.82 S	0.52 E	9.42
351.00	90.90	185.60	2954.36	576.70 S	2.23 W	8.39
388.00	90.00	181.40	2954.11	607.63 S	4.13 W	13.86
419.00	90.90	179.60	2953.87	638.63 S	4.40 W	6.49
450.00	91.80	180.70	2953.14	669.62 S	4.48 W	4.58
481.00	91.10	179.30	2952.36	700.61 S	4.48 W	5.05
512.00	89.90	178.90	2952.09	731.60 S	3.99 W	4.08
543.00	88.50	177.50	2952.52	762.58 S	3.02 W	6.39
574.00	88.20	176.80	2953.41	793.53 S	1.48 W	2.46
606.00	89.70	177.50	2954.00	825.48 S	0.11 E	5.17
637.00	90.60	178.90	2953.92	856.47 S	1.09 E	5.37
668.00	88.90	176.50	2954.05	887.44 S	2.33 E	9.49
699.00	88.60	175.40	2954.73	918.35 S	4.52 E	3.68
730.00	90.10	177.20	2955.08	949.28 S	6.52 E	7.56
761.00	90.30	178.20	2954.97	980.26 S	7.76 E	3.29
793.00	90.00	178.20	2954.89	1012.24 S	8.77 E	0.94
824.00	88.70	176.10	2955.24	1043.20 S	10.31 E	7.97
855.00	88.10	175.40	2956.11	1074.10 S	12.61 E	2.97
886.00	88.20	176.50	2957.11	1105.01 S	14.80 E	3.56
917.00	89.60	180.30	2957.70	1135.98 S	15.66 E	13.06
948.00	90.20	181.00	2957.76	1166.98 S	15.31 E	2.97

All data is in feet unless otherwise stated.
 Coordinates from slot #1 and TVD from rotary table.
 Bottom hole distance is 2567.88 on azimuth 180.45 degrees from wellhead.
 Vertical section is from N 0.00 E 0.00 on azimuth 180.00 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes INTEQ

QUEEN SAND OPERATING COMPANY
DQSU No.57, slot #1
CAPROCK, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 4
Your ref : Gyro/MWD
Last revised : 31-Jan-2000

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
979.00	90.10	181.00	2957.67	1197.98 S	0.32	1197.98
010.00	89.70	181.00	2957.73	1228.97 S	1.29	1228.97
041.00	90.40	182.10	2957.70	1259.96 S	4.21	1259.96
072.00	88.40	180.30	2958.03	1290.95 S	8.68	1290.95
103.00	88.20	180.00	2958.95	1321.93 S	1.16	1321.93
130.00	89.80	180.30	2959.50	1353.93 S	5.09	1353.93
167.00	89.10	180.70	2959.81	1385.92 S	2.52	1385.92
198.00	88.80	179.60	2960.38	1416.92 S	3.68	1416.92
229.00	87.50	179.30	2961.38	1447.90 S	4.30	1447.90
260.00	89.00	181.70	2962.33	1478.88 S	9.13	1478.88
291.00	90.50	183.90	2962.46	1509.84 S	8.59	1509.84
322.00	90.00	184.20	2962.33	1540.76 S	1.88	1540.76
354.00	89.50	183.90	2962.47	1572.68 S	1.82	1572.68
385.00	88.00	180.70	2963.14	1603.65 S	11.40	1603.65
417.00	89.00	181.40	2963.98	1635.63 S	3.81	1635.63
448.00	90.60	181.40	2964.09	1666.62 S	5.16	1666.62
479.00	90.50	180.70	2963.79	1697.61 S	2.28	1697.61
510.00	90.10	180.30	2963.63	1728.61 S	1.82	1728.61
541.00	88.40	180.30	2964.03	1759.61 S	5.48	1759.61
572.00	89.00	180.00	2964.74	1790.60 S	2.16	1790.60
603.00	88.50	180.30	2965.41	1821.59 S	1.88	1821.59
635.00	89.70	180.70	2965.92	1853.58 S	3.95	1853.58
667.00	88.90	180.30	2966.31	1885.58 S	2.80	1885.58
698.00	89.00	181.00	2966.88	1916.57 S	2.28	1916.57
729.00	90.40	183.20	2967.04	1947.55 S	8.41	1947.55

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 2567.88 on azimuth 180.45 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 180.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

QUEEN SAND OPERATING COMPANY
DQSU No.57, slot #1
CAPROCK, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 5
Your ref : Gyro/MWD
Last revised : 31-Jan-2000

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
760.00	89.20	184.20	2967.15	1978.48 S	5.04	1978.48
792.00	89.10	183.90	2967.62	2010.40 S	0.99	2010.40
823.00	88.40	183.90	2968.30	2041.32 S	2.26	2041.32
855.00	88.10	184.60	2969.27	2073.22 S	2.38	2073.22
886.00	88.10	185.30	2970.30	2104.08 S	2.26	2104.08
918.00	89.90	184.20	2970.86	2135.97 S	6.59	2135.97
949.00	90.20	181.70	2970.83	2166.92 S	8.12	2166.92
981.00	89.80	181.70	2970.83	2198.91 S	1.25	2198.91
012.00	90.00	182.50	2970.89	2229.89 S	2.66	2229.89
043.00	90.00	181.00	2970.89	2260.87 S	4.84	2260.87
075.00	89.30	180.70	2971.08	2292.87 S	2.38	2292.87
107.00	89.90	182.10	2971.31	2324.86 S	4.76	2324.86
138.00	90.50	181.70	2971.20	2355.84 S	2.33	2355.84
170.00	90.90	180.30	2970.81	2387.83 S	4.55	2387.83
202.00	91.80	180.30	2970.05	2419.82 S	2.81	2419.82
233.00	90.50	180.00	2969.43	2450.82 S	4.30	2450.82
265.00	89.00	178.90	2969.57	2482.81 S	5.81	2482.81
296.00	89.20	178.90	2970.06	2513.80 S	0.65	2513.80
306.00	89.60	179.60	2970.16	2523.80 S	8.06	2523.80
350.00	91.00	180.00	2969.93	2567.80 S	3.31	2567.80

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 2567.88 on azimuth 180.45 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 180.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ