

A Gyrodata Directional Survey

CONCHO RESOURCES

Well: SHUGART 31 FED #1, 4-1/2" DRILLPIPE

Location: PATTERSON DRILLING RIG #144, EDDY COUNTY, NEW MEXICO

Job Number: MD0501GMW203

MEASURED DEPTH feet	I N C L deg.	A Z I M U T H deg.	V E R T I C A L S E C T I O N feet	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 . feet	A Z I M U T H deg.	H O R I Z O N T A L C O O R D I N A T E S feet
4500.0	0.42	329.40	-42.7	0.30	4499.4	53.1	36.6	42.67 N 31.68 E
4600.0	0.41	300.82	-43.2	0.21	4599.4	53.3	35.8	43.17 N 31.18 E
4700.0	0.46	292.71	-43.5	0.08	4699.4	53.1	35.0	43.51 N 30.50 E
4800.0	0.64	277.48	-43.7	0.23	4799.4	52.8	34.1	43.74 N 29.57 E
4900.0	1.01	274.42	-43.9	0.37	4899.4	52.1	32.7	43.88 N 28.14 E
5000.0	1.35	273.17	-44.0	0.34	4999.4	51.2	30.7	44.01 N 26.08 E
5100.0	1.07	263.99	-44.0	0.34	5099.3	50.1	28.6	43.98 N 23.98 E
5200.0	0.95	257.70	-43.7	0.16	5199.3	49.0	27.0	43.71 N 22.24 E
5300.0	0.87	255.66	-43.3	0.09	5299.3	48.0	25.5	43.34 N 20.69 E
5400.0	0.83	248.31	-42.9	0.12	5399.3	47.0	24.2	42.89 N 19.28 E
5500.0	0.79	252.25	-42.4	0.07	5499.3	46.1	22.9	42.41 N 17.95 E
5600.0	0.75	237.15	-41.8	0.20	5599.3	45.1	21.8	41.84 N 16.75 E
5700.0	0.72	223.00	-41.0	0.18	5699.3	43.9	21.0	41.02 N 15.77 E
5800.0	0.85	217.90	-40.0	0.15	5799.3	42.7	20.4	39.97 N 14.88 E
5900.0	1.04	215.08	-38.6	0.19	5899.2	41.1	19.8	38.65 N 13.90 E
6000.0	1.26	228.34	-37.2	0.34	5999.2	39.2	18.7	37.18 N 12.56 E
6100.0	1.24	225.74	-35.7	0.06	6099.2	37.3	17.1	35.70 N 10.97 E
6200.0	1.08	230.42	-34.3	0.18	6199.2	35.6	15.4	34.34 N 9.47 E
6300.0	0.85	224.41	-33.2	0.25	6299.2	34.2	13.9	33.21 N 8.22 E
6400.0	0.79	205.30	-32.1	0.28	6399.2	32.9	13.0	32.06 N 7.41 E
6500.0	0.89	206.69	-30.7	0.10	6499.1	31.5	12.4	30.75 N 6.77 E
6600.0	0.53	205.07	-29.6	0.35	6599.1	30.3	11.9	29.63 N 6.23 E
6700.0	0.22	285.43	-29.3	0.54	6699.1	29.8	11.3	29.26 N 5.84 E
6800.0	0.32	323.46	-29.5	0.20	6799.1	30.0	10.5	29.54 N 5.48 E