

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 . 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
2100.0	0.87	68.09	-3.0	0.09	2099.9	23.2 82.7	2.96 N 23.06 E
2200.0	0.83	56.61	-3.6	0.17	2199.8	24.6 81.5	3.65 N 24.37 E
2300.0	0.93	55.91	-4.5	0.10	2299.8	26.0 80.0	4.50 N 25.64 E
2400.0	0.98	40.15	-5.6	0.27	2399.8	27.4 78.2	5.61 N 26.87 E
2500.0	1.35	23.01	-7.3	0.50	2499.8	28.8 75.2	7.34 N 27.88 E
2600.0	1.50	14.40	-9.7	0.26	2599.8	30.3 71.3	9.69 N 28.66 E
2700.0	1.65	4.58	-12.4	0.31	2699.7	31.6 66.9	12.39 N 29.10 E
2800.0	1.65	0.57	-15.3	0.12	2799.7	33.0 62.4	15.25 N 29.23 E
2900.0	1.57	355.22	-18.1	0.17	2899.7	34.3 58.2	18.06 N 29.13 E
3000.0	1.60	0.75	-20.8	0.16	2999.6	35.7 54.4	20.82 N 29.03 E
3100.0	1.58	355.94	-23.6	0.13	3099.6	37.3 50.8	23.59 N 28.95 E
3200.0	1.42	359.52	-26.2	0.18	3199.5	39.0 47.7	26.20 N 28.85 E
3300.0	1.49	359.06	-28.7	0.07	3299.5	40.7 45.1	28.75 N 28.81 E
3400.0	1.26	357.87	-31.1	0.24	3399.5	42.4 42.7	31.15 N 28.75 E
3500.0	0.97	358.54	-33.1	0.29	3499.5	43.8 40.9	33.10 N 28.69 E
3600.0	0.82	0.21	-34.7	0.16	3599.5	45.0 39.6	34.66 N 28.67 E
3700.0	0.89	9.80	-36.1	0.16	3699.4	46.2 38.6	36.13 N 28.81 E
3800.0	0.78	27.51	-37.5	0.28	3799.4	47.6 38.0	37.51 N 29.25 E
3900.0	0.83	22.61	-38.8	0.08	3899.4	48.9 37.6	38.78 N 29.85 E
4000.0	0.47	32.07	-39.8	0.37	3999.4	50.0 37.3	39.79 N 30.34 E
4100.0	0.46	36.91	-40.5	0.04	4099.4	50.8 37.3	40.46 N 30.80 E
4200.0	0.40	29.78	-41.1	0.08	4199.4	51.6 37.2	41.08 N 31.21 E
4300.0	0.36	35.10	-41.6	0.06	4299.4	52.3 37.2	41.65 N 31.57 E
4400.0	0.27	14.24	-42.1	0.14	4399.4	52.8 37.1	42.13 N 31.81 E