



COG Operating, LLC

Lea County, NM

Sec 28, T24S, R35E

Coonskin Fee #25H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

26 November, 2017

Provide signature page for
directional survey



Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Sec 28, T24S, R35E			
Site Position:		Northing:	436,006.80 usft	Latitude:	32° 11' 42.192 N
From:	Map	Easting:	797,062.30 usft	Longitude:	103° 22' 22.917 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	Coonskin Fee #25H					
Well Position	+N/-S	0.0 usft	Northing:	436,006.80 usft	Latitude:	32° 11' 42.192 N
	+E/-W	0.0 usft	Easting:	797,062.30 usft	Longitude:	103° 22' 22.917 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,319.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/14/2017	6.83	60.06	47,917.42880603

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	11,813.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	179.51	

Survey Program	Date 11/26/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	11,540.0	Gyro (Pilot Hole)	GYRO-NS	OWSG Gyrocompass Gyro
11,718.0	11,813.0	MWD Surveys (Gyro Tie-In) (Pilot Hole)	MWD default	MWD - Standard
11,847.0	19,763.0	MWD Surveys (C&L) (Wellbore #1)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	436,006.80	797,062.30	32° 11' 42.192 N	103° 22' 22.917 W	
100.0	0.29	239.62	100.0	-0.1	-0.2	436,006.67	797,062.08	32° 11' 42.191 N	103° 22' 22.920 W	
125.0	0.27	192.54	125.0	-0.2	-0.3	436,006.58	797,062.01	32° 11' 42.190 N	103° 22' 22.920 W	
150.0	0.31	192.55	150.0	-0.3	-0.3	436,006.46	797,061.98	32° 11' 42.189 N	103° 22' 22.921 W	
175.0	0.42	202.23	175.0	-0.5	-0.4	436,006.31	797,061.94	32° 11' 42.187 N	103° 22' 22.921 W	
200.0	0.45	264.43	200.0	-0.6	-0.5	436,006.21	797,061.80	32° 11' 42.186 N	103° 22' 22.923 W	
225.0	0.86	274.87	225.0	-0.6	-0.8	436,006.22	797,061.52	32° 11' 42.186 N	103° 22' 22.926 W	
250.0	0.84	271.80	250.0	-0.6	-1.1	436,006.24	797,061.15	32° 11' 42.187 N	103° 22' 22.931 W	
275.0	0.81	271.52	275.0	-0.5	-1.5	436,006.25	797,060.79	32° 11' 42.187 N	103° 22' 22.935 W	
300.0	0.78	271.44	300.0	-0.5	-1.9	436,006.26	797,060.44	32° 11' 42.187 N	103° 22' 22.939 W	

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Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
325.0	0.77	272.08	325.0	-0.5	-2.2	436,006.27	797,060.10	32° 11' 42.187 N	103° 22' 22.943 W
350.0	0.80	267.79	350.0	-0.5	-2.5	436,006.27	797,059.76	32° 11' 42.187 N	103° 22' 22.947 W
375.0	0.74	269.12	375.0	-0.5	-2.9	436,006.26	797,059.43	32° 11' 42.187 N	103° 22' 22.951 W
400.0	0.72	267.79	400.0	-0.5	-3.2	436,006.25	797,059.11	32° 11' 42.187 N	103° 22' 22.954 W
425.0	0.73	270.79	425.0	-0.6	-3.5	436,006.25	797,058.79	32° 11' 42.187 N	103° 22' 22.958 W
450.0	0.71	266.62	450.0	-0.6	-3.8	436,006.24	797,058.48	32° 11' 42.187 N	103° 22' 22.962 W
475.0	0.73	266.79	475.0	-0.6	-4.1	436,006.22	797,058.16	32° 11' 42.187 N	103° 22' 22.965 W
500.0	0.78	268.00	500.0	-0.6	-4.5	436,006.21	797,057.83	32° 11' 42.187 N	103° 22' 22.969 W
525.0	0.75	268.11	525.0	-0.6	-4.8	436,006.20	797,057.50	32° 11' 42.186 N	103° 22' 22.973 W
550.0	0.78	270.30	550.0	-0.6	-5.1	436,006.19	797,057.17	32° 11' 42.186 N	103° 22' 22.977 W
575.0	0.78	272.44	575.0	-0.6	-5.5	436,006.20	797,056.83	32° 11' 42.187 N	103° 22' 22.981 W
600.0	0.82	272.89	600.0	-0.6	-5.8	436,006.22	797,056.48	32° 11' 42.187 N	103° 22' 22.985 W
625.0	0.79	274.97	625.0	-0.6	-6.2	436,006.24	797,056.13	32° 11' 42.187 N	103° 22' 22.989 W
650.0	0.75	275.87	650.0	-0.5	-6.5	436,006.27	797,055.79	32° 11' 42.187 N	103° 22' 22.993 W
675.0	0.79	275.12	675.0	-0.5	-6.8	436,006.31	797,055.46	32° 11' 42.188 N	103° 22' 22.997 W
700.0	0.78	276.03	700.0	-0.5	-7.2	436,006.34	797,055.12	32° 11' 42.188 N	103° 22' 23.001 W
725.0	0.77	274.15	725.0	-0.4	-7.5	436,006.37	797,054.78	32° 11' 42.188 N	103° 22' 23.005 W
750.0	0.72	275.91	749.9	-0.4	-7.8	436,006.40	797,054.46	32° 11' 42.189 N	103° 22' 23.008 W
775.0	0.66	269.28	774.9	-0.4	-8.1	436,006.41	797,054.16	32° 11' 42.189 N	103° 22' 23.012 W
800.0	0.57	267.18	799.9	-0.4	-8.4	436,006.40	797,053.89	32° 11' 42.189 N	103° 22' 23.015 W
825.0	0.46	266.18	824.9	-0.4	-8.6	436,006.39	797,053.66	32° 11' 42.189 N	103° 22' 23.018 W
850.0	0.39	271.93	849.9	-0.4	-8.8	436,006.39	797,053.48	32° 11' 42.189 N	103° 22' 23.020 W
875.0	0.40	268.20	874.9	-0.4	-9.0	436,006.39	797,053.31	32° 11' 42.189 N	103° 22' 23.022 W
900.0	0.44	271.36	899.9	-0.4	-9.2	436,006.39	797,053.12	32° 11' 42.189 N	103° 22' 23.024 W
925.0	0.39	271.40	924.9	-0.4	-9.4	436,006.39	797,052.94	32° 11' 42.189 N	103° 22' 23.026 W
950.0	0.35	275.53	949.9	-0.4	-9.5	436,006.40	797,052.78	32° 11' 42.189 N	103° 22' 23.028 W
975.0	0.34	288.12	974.9	-0.4	-9.7	436,006.43	797,052.64	32° 11' 42.189 N	103° 22' 23.030 W
1,000.0	0.27	284.00	999.9	-0.3	-9.8	436,006.47	797,052.51	32° 11' 42.190 N	103° 22' 23.031 W
1,025.0	0.22	288.30	1,024.9	-0.3	-9.9	436,006.50	797,052.41	32° 11' 42.190 N	103° 22' 23.032 W
1,050.0	0.25	289.27	1,049.9	-0.3	-10.0	436,006.53	797,052.31	32° 11' 42.190 N	103° 22' 23.033 W
1,075.0	0.30	270.16	1,074.9	-0.3	-10.1	436,006.55	797,052.19	32° 11' 42.190 N	103° 22' 23.035 W
1,100.0	0.24	279.97	1,099.9	-0.2	-10.2	436,006.56	797,052.07	32° 11' 42.190 N	103° 22' 23.036 W
1,125.0	0.25	286.11	1,124.9	-0.2	-10.3	436,006.58	797,051.97	32° 11' 42.191 N	103° 22' 23.037 W
1,150.0	0.31	298.94	1,149.9	-0.2	-10.4	436,006.63	797,051.86	32° 11' 42.191 N	103° 22' 23.039 W
1,175.0	0.29	301.34	1,174.9	-0.1	-10.6	436,006.70	797,051.75	32° 11' 42.192 N	103° 22' 23.040 W
1,200.0	0.31	313.74	1,199.9	0.0	-10.7	436,006.78	797,051.64	32° 11' 42.193 N	103° 22' 23.041 W
1,225.0	0.28	329.59	1,224.9	0.1	-10.7	436,006.87	797,051.56	32° 11' 42.194 N	103° 22' 23.042 W
1,250.0	0.23	335.21	1,249.9	0.2	-10.8	436,006.97	797,051.51	32° 11' 42.195 N	103° 22' 23.043 W
1,275.0	0.21	10.28	1,274.9	0.3	-10.8	436,007.06	797,051.50	32° 11' 42.196 N	103° 22' 23.043 W
1,300.0	0.20	43.84	1,299.9	0.3	-10.8	436,007.14	797,051.54	32° 11' 42.196 N	103° 22' 23.042 W
1,325.0	0.23	67.78	1,324.9	0.4	-10.7	436,007.19	797,051.61	32° 11' 42.197 N	103° 22' 23.041 W
1,350.0	0.18	88.78	1,349.9	0.4	-10.6	436,007.21	797,051.70	32° 11' 42.197 N	103° 22' 23.040 W
1,375.0	0.21	83.43	1,374.9	0.4	-10.5	436,007.22	797,051.78	32° 11' 42.197 N	103° 22' 23.039 W
1,400.0	0.20	88.84	1,399.9	0.4	-10.4	436,007.22	797,051.87	32° 11' 42.197 N	103° 22' 23.038 W
1,425.0	0.13	91.30	1,424.9	0.4	-10.4	436,007.22	797,051.94	32° 11' 42.197 N	103° 22' 23.038 W
1,450.0	0.15	58.74	1,449.9	0.4	-10.3	436,007.24	797,052.00	32° 11' 42.197 N	103° 22' 23.037 W
1,475.0	0.20	53.94	1,474.9	0.5	-10.2	436,007.28	797,052.06	32° 11' 42.198 N	103° 22' 23.036 W
1,500.0	0.21	56.87	1,499.9	0.5	-10.2	436,007.33	797,052.14	32° 11' 42.198 N	103° 22' 23.035 W
1,525.0	0.21	64.52	1,524.9	0.6	-10.1	436,007.38	797,052.22	32° 11' 42.199 N	103° 22' 23.034 W
1,550.0	0.21	71.46	1,549.9	0.6	-10.0	436,007.41	797,052.30	32° 11' 42.199 N	103° 22' 23.033 W
1,575.0	0.24	85.12	1,574.9	0.6	-9.9	436,007.43	797,052.40	32° 11' 42.199 N	103° 22' 23.032 W
1,600.0	0.18	68.57	1,599.9	0.6	-9.8	436,007.45	797,052.49	32° 11' 42.199 N	103° 22' 23.031 W
1,625.0	0.19	50.58	1,624.9	0.7	-9.7	436,007.49	797,052.56	32° 11' 42.200 N	103° 22' 23.030 W
1,650.0	0.20	50.57	1,649.9	0.7	-9.7	436,007.54	797,052.62	32° 11' 42.200 N	103° 22' 23.030 W
1,675.0	0.25	61.01	1,674.9	0.8	-9.6	436,007.60	797,052.70	32° 11' 42.201 N	103° 22' 23.029 W

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Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,700.0	0.24	73.01	1,699.9	0.8	-9.5	436,007.64	797,052.80	32° 11' 42.201 N	103° 22' 23.028 W
1,725.0	0.18	82.51	1,724.9	0.9	-9.4	436,007.66	797,052.89	32° 11' 42.201 N	103° 22' 23.027 W
1,750.0	0.18	63.34	1,749.9	0.9	-9.3	436,007.68	797,052.96	32° 11' 42.202 N	103° 22' 23.026 W
1,775.0	0.26	54.87	1,774.9	0.9	-9.3	436,007.73	797,053.04	32° 11' 42.202 N	103° 22' 23.025 W
1,800.0	0.29	56.50	1,799.9	1.0	-9.2	436,007.80	797,053.14	32° 11' 42.203 N	103° 22' 23.024 W
1,825.0	0.36	66.89	1,824.9	1.1	-9.0	436,007.87	797,053.27	32° 11' 42.203 N	103° 22' 23.022 W
1,850.0	0.39	69.19	1,849.9	1.1	-8.9	436,007.93	797,053.42	32° 11' 42.204 N	103° 22' 23.020 W
1,875.0	0.38	75.04	1,874.9	1.2	-8.7	436,007.98	797,053.58	32° 11' 42.204 N	103° 22' 23.018 W
1,900.0	0.35	72.73	1,899.9	1.2	-8.6	436,008.02	797,053.73	32° 11' 42.205 N	103° 22' 23.017 W
1,925.0	0.42	66.49	1,924.9	1.3	-8.4	436,008.08	797,053.89	32° 11' 42.205 N	103° 22' 23.015 W
1,950.0	0.49	58.67	1,949.9	1.4	-8.2	436,008.18	797,054.07	32° 11' 42.206 N	103° 22' 23.013 W
1,975.0	0.62	62.65	1,974.9	1.5	-8.0	436,008.29	797,054.28	32° 11' 42.207 N	103° 22' 23.010 W
2,000.0	0.68	68.14	1,999.9	1.6	-7.8	436,008.41	797,054.53	32° 11' 42.209 N	103° 22' 23.007 W
2,025.0	0.79	66.77	2,024.9	1.7	-7.5	436,008.53	797,054.83	32° 11' 42.210 N	103° 22' 23.004 W
2,050.0	0.84	70.03	2,049.9	1.9	-7.1	436,008.66	797,055.16	32° 11' 42.211 N	103° 22' 23.000 W
2,075.0	0.86	69.84	2,074.9	2.0	-6.8	436,008.79	797,055.51	32° 11' 42.212 N	103° 22' 22.996 W
2,100.0	0.96	65.89	2,099.9	2.1	-6.4	436,008.94	797,055.88	32° 11' 42.214 N	103° 22' 22.992 W
2,125.0	1.08	62.79	2,124.9	2.3	-6.0	436,009.13	797,056.28	32° 11' 42.216 N	103° 22' 22.987 W
2,150.0	1.15	64.07	2,149.9	2.6	-5.6	436,009.35	797,056.71	32° 11' 42.218 N	103° 22' 22.982 W
2,175.0	1.26	62.07	2,174.9	2.8	-5.1	436,009.59	797,057.18	32° 11' 42.220 N	103° 22' 22.976 W
2,200.0	1.29	62.46	2,199.9	3.0	-4.6	436,009.85	797,057.67	32° 11' 42.223 N	103° 22' 22.971 W
2,225.0	1.32	62.68	2,224.9	3.3	-4.1	436,010.11	797,058.18	32° 11' 42.225 N	103° 22' 22.965 W
2,250.0	1.36	64.67	2,249.9	3.6	-3.6	436,010.37	797,058.70	32° 11' 42.228 N	103° 22' 22.959 W
2,275.0	1.26	63.53	2,274.9	3.8	-3.1	436,010.62	797,059.22	32° 11' 42.230 N	103° 22' 22.953 W
2,300.0	1.01	53.63	2,299.9	4.1	-2.7	436,010.87	797,059.64	32° 11' 42.233 N	103° 22' 22.948 W
2,325.0	0.84	35.77	2,324.9	4.4	-2.4	436,011.15	797,059.93	32° 11' 42.235 N	103° 22' 22.944 W
2,350.0	0.78	29.28	2,349.9	4.7	-2.2	436,011.45	797,060.12	32° 11' 42.238 N	103° 22' 22.942 W
2,375.0	0.78	25.40	2,374.9	5.0	-2.0	436,011.75	797,060.27	32° 11' 42.241 N	103° 22' 22.940 W
2,400.0	0.76	21.10	2,399.9	5.3	-1.9	436,012.06	797,060.40	32° 11' 42.244 N	103° 22' 22.939 W
2,425.0	0.84	24.22	2,424.9	5.6	-1.8	436,012.38	797,060.54	32° 11' 42.247 N	103° 22' 22.937 W
2,450.0	0.86	23.24	2,449.9	5.9	-1.6	436,012.72	797,060.69	32° 11' 42.251 N	103° 22' 22.935 W
2,475.0	0.90	29.75	2,474.9	6.3	-1.4	436,013.06	797,060.86	32° 11' 42.254 N	103° 22' 22.933 W
2,500.0	1.01	34.65	2,499.9	6.6	-1.2	436,013.42	797,061.08	32° 11' 42.258 N	103° 22' 22.931 W
2,525.0	1.16	38.29	2,524.8	7.0	-0.9	436,013.80	797,061.36	32° 11' 42.261 N	103° 22' 22.927 W
2,550.0	1.19	40.81	2,549.8	7.4	-0.6	436,014.19	797,061.69	32° 11' 42.265 N	103° 22' 22.923 W
2,575.0	1.21	38.98	2,574.8	7.8	-0.3	436,014.59	797,062.03	32° 11' 42.269 N	103° 22' 22.919 W
2,600.0	1.27	39.36	2,599.8	8.2	0.1	436,015.01	797,062.37	32° 11' 42.273 N	103° 22' 22.915 W
2,625.0	1.26	41.77	2,624.8	8.6	0.4	436,015.43	797,062.73	32° 11' 42.277 N	103° 22' 22.911 W
2,650.0	1.12	41.26	2,649.8	9.0	0.8	436,015.82	797,063.07	32° 11' 42.281 N	103° 22' 22.907 W
2,675.0	0.68	37.91	2,674.8	9.3	1.0	436,016.12	797,063.32	32° 11' 42.284 N	103° 22' 22.904 W
2,700.0	0.48	24.34	2,699.8	9.5	1.2	436,016.33	797,063.46	32° 11' 42.286 N	103° 22' 22.903 W
2,725.0	0.52	22.60	2,724.8	9.7	1.2	436,016.53	797,063.55	32° 11' 42.288 N	103° 22' 22.902 W
2,750.0	0.55	26.93	2,749.8	9.9	1.3	436,016.75	797,063.64	32° 11' 42.290 N	103° 22' 22.900 W
2,775.0	0.54	31.18	2,774.8	10.2	1.5	436,016.95	797,063.76	32° 11' 42.292 N	103° 22' 22.899 W
2,800.0	0.55	36.62	2,799.8	10.4	1.6	436,017.15	797,063.89	32° 11' 42.294 N	103° 22' 22.898 W
2,825.0	0.58	36.03	2,824.8	10.5	1.7	436,017.35	797,064.04	32° 11' 42.296 N	103° 22' 22.896 W
2,850.0	0.71	37.69	2,849.8	10.8	1.9	436,017.57	797,064.21	32° 11' 42.298 N	103° 22' 22.894 W
2,875.0	0.84	43.74	2,874.8	11.0	2.1	436,017.83	797,064.43	32° 11' 42.301 N	103° 22' 22.891 W
2,900.0	0.94	51.60	2,899.8	11.3	2.4	436,018.09	797,064.72	32° 11' 42.303 N	103° 22' 22.888 W
2,925.0	0.98	52.79	2,924.8	11.5	2.7	436,018.35	797,065.05	32° 11' 42.306 N	103° 22' 22.884 W
2,950.0	1.11	51.48	2,949.8	11.8	3.1	436,018.63	797,065.41	32° 11' 42.309 N	103° 22' 22.880 W
2,975.0	1.36	54.04	2,974.8	12.2	3.5	436,018.95	797,065.84	32° 11' 42.312 N	103° 22' 22.875 W
3,000.0	1.51	58.66	2,999.8	12.5	4.1	436,019.30	797,066.36	32° 11' 42.315 N	103° 22' 22.869 W
3,025.0	1.66	59.54	3,024.8	12.9	4.7	436,019.65	797,066.95	32° 11' 42.319 N	103° 22' 22.862 W
3,050.0	1.87	57.39	3,049.8	13.3	5.3	436,020.05	797,067.61	32° 11' 42.323 N	103° 22' 22.854 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,075.0	2.02	57.49	3,074.7	13.7	6.0	436,020.51	797,068.32	32° 11' 42.327 N	103° 22' 22.846 W
3,100.0	2.00	58.32	3,099.7	14.2	6.8	436,020.98	797,069.06	32° 11' 42.332 N	103° 22' 22.837 W
3,125.0	1.92	57.74	3,124.7	14.6	7.5	436,021.43	797,069.79	32° 11' 42.336 N	103° 22' 22.828 W
3,150.0	1.67	49.02	3,149.7	15.1	8.1	436,021.89	797,070.42	32° 11' 42.341 N	103° 22' 22.821 W
3,175.0	1.52	40.43	3,174.7	15.6	8.6	436,022.38	797,070.91	32° 11' 42.345 N	103° 22' 22.815 W
3,200.0	1.52	42.48	3,199.7	16.1	9.0	436,022.88	797,071.35	32° 11' 42.350 N	103° 22' 22.810 W
3,225.0	1.49	42.45	3,224.7	16.6	9.5	436,023.36	797,071.79	32° 11' 42.355 N	103° 22' 22.805 W
3,250.0	1.49	39.73	3,249.7	17.1	9.9	436,023.85	797,072.22	32° 11' 42.360 N	103° 22' 22.800 W
3,275.0	1.53	41.11	3,274.7	17.6	10.3	436,024.36	797,072.65	32° 11' 42.365 N	103° 22' 22.795 W
3,300.0	1.52	42.82	3,299.6	18.1	10.8	436,024.85	797,073.09	32° 11' 42.370 N	103° 22' 22.790 W
3,325.0	1.45	40.34	3,324.6	18.5	11.2	436,025.33	797,073.52	32° 11' 42.374 N	103° 22' 22.785 W
3,350.0	1.52	40.28	3,349.6	19.0	11.6	436,025.83	797,073.94	32° 11' 42.379 N	103° 22' 22.780 W
3,375.0	1.50	43.24	3,374.6	19.5	12.1	436,026.32	797,074.38	32° 11' 42.384 N	103° 22' 22.775 W
3,400.0	1.32	40.19	3,399.6	20.0	12.5	436,026.78	797,074.79	32° 11' 42.389 N	103° 22' 22.770 W
3,425.0	0.78	17.73	3,424.6	20.4	12.7	436,027.16	797,075.03	32° 11' 42.392 N	103° 22' 22.767 W
3,450.0	0.59	342.53	3,449.6	20.6	12.7	436,027.45	797,075.04	32° 11' 42.395 N	103° 22' 22.767 W
3,475.0	0.63	292.33	3,474.6	20.8	12.6	436,027.62	797,074.87	32° 11' 42.397 N	103° 22' 22.769 W
3,500.0	0.76	290.35	3,499.6	20.9	12.3	436,027.73	797,074.59	32° 11' 42.398 N	103° 22' 22.772 W
3,525.0	0.76	287.11	3,524.6	21.0	12.0	436,027.84	797,074.28	32° 11' 42.399 N	103° 22' 22.776 W
3,550.0	0.82	281.42	3,549.6	21.1	11.6	436,027.92	797,073.94	32° 11' 42.400 N	103° 22' 22.779 W
3,575.0	0.92	282.59	3,574.6	21.2	11.3	436,028.00	797,073.57	32° 11' 42.401 N	103° 22' 22.784 W
3,600.0	0.94	275.77	3,599.6	21.3	10.9	436,028.06	797,073.17	32° 11' 42.401 N	103° 22' 22.788 W
3,625.0	1.08	273.08	3,624.6	21.3	10.4	436,028.10	797,072.73	32° 11' 42.402 N	103° 22' 22.794 W
3,650.0	1.07	275.22	3,649.6	21.3	10.0	436,028.13	797,072.26	32° 11' 42.402 N	103° 22' 22.799 W
3,675.0	1.04	269.92	3,674.6	21.4	9.5	436,028.15	797,071.80	32° 11' 42.402 N	103° 22' 22.804 W
3,700.0	1.12	271.22	3,699.6	21.4	9.0	436,028.16	797,071.33	32° 11' 42.403 N	103° 22' 22.810 W
3,725.0	1.12	275.27	3,724.6	21.4	8.5	436,028.18	797,070.85	32° 11' 42.403 N	103° 22' 22.815 W
3,750.0	1.03	274.21	3,749.6	21.4	8.1	436,028.22	797,070.38	32° 11' 42.403 N	103° 22' 22.821 W
3,775.0	1.22	262.72	3,774.6	21.4	7.6	436,028.21	797,069.89	32° 11' 42.403 N	103° 22' 22.827 W
3,800.0	1.04	271.70	3,799.6	21.4	7.1	436,028.18	797,069.40	32° 11' 42.403 N	103° 22' 22.832 W
3,825.0	0.86	267.65	3,824.6	21.4	6.7	436,028.18	797,068.99	32° 11' 42.403 N	103° 22' 22.837 W
3,850.0	0.66	268.08	3,849.6	21.4	6.4	436,028.17	797,068.65	32° 11' 42.403 N	103° 22' 22.841 W
3,875.0	0.30	247.74	3,874.6	21.3	6.2	436,028.14	797,068.45	32° 11' 42.403 N	103° 22' 22.843 W
3,900.0	0.28	161.27	3,899.6	21.3	6.1	436,028.05	797,068.41	32° 11' 42.402 N	103° 22' 22.844 W
3,925.0	0.54	134.19	3,924.6	21.1	6.2	436,027.91	797,068.51	32° 11' 42.400 N	103° 22' 22.843 W
3,950.0	0.76	124.17	3,949.6	20.9	6.4	436,027.74	797,068.73	32° 11' 42.399 N	103° 22' 22.840 W
3,975.0	1.01	127.00	3,974.5	20.7	6.7	436,027.51	797,069.05	32° 11' 42.396 N	103° 22' 22.836 W
4,000.0	1.15	122.24	3,999.5	20.4	7.1	436,027.25	797,069.44	32° 11' 42.394 N	103° 22' 22.832 W
4,025.0	1.48	117.55	4,024.5	20.2	7.6	436,026.96	797,069.93	32° 11' 42.391 N	103° 22' 22.826 W
4,050.0	1.81	115.05	4,049.5	19.8	8.3	436,026.65	797,070.58	32° 11' 42.388 N	103° 22' 22.819 W
4,075.0	2.03	111.29	4,074.5	19.5	9.1	436,026.32	797,071.35	32° 11' 42.384 N	103° 22' 22.810 W
4,100.0	2.30	109.59	4,099.5	19.2	9.9	436,025.99	797,072.23	32° 11' 42.381 N	103° 22' 22.800 W
4,125.0	2.44	109.68	4,124.5	18.8	10.9	436,025.64	797,073.21	32° 11' 42.377 N	103° 22' 22.788 W
4,150.0	2.51	106.16	4,149.4	18.5	11.9	436,025.31	797,074.23	32° 11' 42.374 N	103° 22' 22.776 W
4,175.0	2.50	101.30	4,174.4	18.3	13.0	436,025.05	797,075.29	32° 11' 42.371 N	103° 22' 22.764 W
4,200.0	2.26	91.10	4,199.4	18.1	14.0	436,024.94	797,076.32	32° 11' 42.370 N	103° 22' 22.752 W
4,225.0	2.18	81.24	4,224.4	18.2	15.0	436,025.00	797,077.29	32° 11' 42.371 N	103° 22' 22.741 W
4,250.0	2.09	79.31	4,249.4	18.4	15.9	436,025.16	797,078.20	32° 11' 42.372 N	103° 22' 22.730 W
4,275.0	2.01	78.01	4,274.4	18.5	16.8	436,025.33	797,079.08	32° 11' 42.374 N	103° 22' 22.720 W
4,300.0	2.13	77.83	4,299.3	18.7	17.7	436,025.52	797,079.96	32° 11' 42.376 N	103° 22' 22.710 W
4,325.0	1.96	78.68	4,324.3	18.9	18.5	436,025.70	797,080.84	32° 11' 42.377 N	103° 22' 22.699 W
4,350.0	1.75	76.50	4,349.3	19.1	19.3	436,025.87	797,081.63	32° 11' 42.379 N	103° 22' 22.690 W
4,375.0	1.13	81.38	4,374.3	19.2	19.9	436,026.00	797,082.24	32° 11' 42.380 N	103° 22' 22.683 W
4,400.0	0.64	87.44	4,399.3	19.2	20.3	436,026.04	797,082.62	32° 11' 42.381 N	103° 22' 22.679 W
4,425.0	0.49	88.10	4,424.3	19.3	20.6	436,026.05	797,082.87	32° 11' 42.381 N	103° 22' 22.676 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,450.0	0.48	93.21	4,449.3	19.3	20.8	436,026.05	797,083.08	32° 11' 42.381 N	103° 22' 22.673 W
4,475.0	0.50	82.03	4,474.3	19.3	21.0	436,026.06	797,083.29	32° 11' 42.381 N	103° 22' 22.671 W
4,500.0	0.69	73.84	4,499.3	19.3	21.2	436,026.12	797,083.55	32° 11' 42.381 N	103° 22' 22.668 W
4,525.0	0.78	64.84	4,524.3	19.4	21.5	436,026.23	797,083.85	32° 11' 42.382 N	103° 22' 22.664 W
4,550.0	1.05	57.17	4,549.3	19.6	21.9	436,026.43	797,084.19	32° 11' 42.384 N	103° 22' 22.660 W
4,575.0	1.12	56.39	4,574.3	19.9	22.3	436,026.69	797,084.59	32° 11' 42.387 N	103° 22' 22.656 W
4,600.0	1.22	48.16	4,599.3	20.2	22.7	436,027.00	797,084.99	32° 11' 42.390 N	103° 22' 22.651 W
4,625.0	1.22	52.25	4,624.3	20.5	23.1	436,027.34	797,085.40	32° 11' 42.393 N	103° 22' 22.646 W
4,650.0	1.05	44.24	4,649.3	20.9	23.5	436,027.67	797,085.77	32° 11' 42.396 N	103° 22' 22.642 W
4,675.0	1.06	38.78	4,674.3	21.2	23.8	436,028.01	797,086.07	32° 11' 42.400 N	103° 22' 22.638 W
4,700.0	1.00	35.84	4,699.3	21.6	24.0	436,028.37	797,086.35	32° 11' 42.403 N	103° 22' 22.635 W
4,725.0	0.93	29.66	4,724.3	21.9	24.3	436,028.72	797,086.57	32° 11' 42.407 N	103° 22' 22.632 W
4,750.0	1.08	26.97	4,749.3	22.3	24.5	436,029.11	797,086.78	32° 11' 42.411 N	103° 22' 22.630 W
4,775.0	1.08	17.67	4,774.2	22.7	24.7	436,029.54	797,086.96	32° 11' 42.415 N	103° 22' 22.628 W
4,800.0	1.22	7.04	4,799.2	23.2	24.8	436,030.03	797,087.06	32° 11' 42.420 N	103° 22' 22.627 W
4,825.0	1.28	359.18	4,824.2	23.8	24.8	436,030.58	797,087.09	32° 11' 42.425 N	103° 22' 22.626 W
4,850.0	1.35	348.51	4,849.2	24.3	24.7	436,031.14	797,087.03	32° 11' 42.431 N	103° 22' 22.627 W
4,875.0	1.33	347.10	4,874.2	24.9	24.6	436,031.71	797,086.91	32° 11' 42.436 N	103° 22' 22.628 W
4,900.0	1.39	342.29	4,899.2	25.5	24.5	436,032.29	797,086.75	32° 11' 42.442 N	103° 22' 22.630 W
4,925.0	1.35	343.54	4,924.2	26.1	24.3	436,032.86	797,086.57	32° 11' 42.448 N	103° 22' 22.632 W
4,950.0	1.34	340.88	4,949.2	26.6	24.1	436,033.42	797,086.40	32° 11' 42.453 N	103° 22' 22.634 W
4,975.0	1.31	341.26	4,974.2	27.2	23.9	436,033.96	797,086.21	32° 11' 42.459 N	103° 22' 22.636 W
5,000.0	1.28	337.16	4,999.2	27.7	23.7	436,034.49	797,086.01	32° 11' 42.464 N	103° 22' 22.638 W
5,025.0	1.31	339.24	5,024.2	28.2	23.5	436,035.02	797,085.80	32° 11' 42.469 N	103° 22' 22.641 W
5,050.0	1.25	336.26	5,049.2	28.7	23.3	436,035.53	797,085.59	32° 11' 42.474 N	103° 22' 22.643 W
5,075.0	1.29	335.85	5,074.2	29.2	23.1	436,036.04	797,085.36	32° 11' 42.479 N	103° 22' 22.646 W
5,100.0	1.24	332.25	5,099.2	29.7	22.8	436,036.54	797,085.12	32° 11' 42.484 N	103° 22' 22.648 W
5,125.0	1.21	327.05	5,124.2	30.2	22.6	436,037.00	797,084.85	32° 11' 42.489 N	103° 22' 22.652 W
5,150.0	1.19	328.74	5,149.2	30.6	22.3	436,037.44	797,084.57	32° 11' 42.493 N	103° 22' 22.655 W
5,175.0	1.20	330.20	5,174.1	31.1	22.0	436,037.89	797,084.31	32° 11' 42.498 N	103° 22' 22.658 W
5,200.0	1.17	329.79	5,199.1	31.5	21.8	436,038.34	797,084.05	32° 11' 42.502 N	103° 22' 22.661 W
5,225.0	1.27	328.34	5,224.1	32.0	21.5	436,038.79	797,083.78	32° 11' 42.507 N	103° 22' 22.664 W
5,250.0	1.18	330.00	5,249.1	32.5	21.2	436,039.25	797,083.50	32° 11' 42.511 N	103° 22' 22.667 W
5,275.0	1.20	326.67	5,274.1	32.9	20.9	436,039.69	797,083.23	32° 11' 42.516 N	103° 22' 22.670 W
5,300.0	1.13	323.05	5,299.1	33.3	20.6	436,040.11	797,082.94	32° 11' 42.520 N	103° 22' 22.674 W
5,325.0	1.21	326.43	5,324.1	33.7	20.3	436,040.53	797,082.64	32° 11' 42.524 N	103° 22' 22.677 W
5,350.0	1.16	326.16	5,349.1	34.2	20.1	436,040.96	797,082.36	32° 11' 42.528 N	103° 22' 22.680 W
5,375.0	1.26	327.18	5,374.1	34.6	19.8	436,041.40	797,082.07	32° 11' 42.533 N	103° 22' 22.684 W
5,400.0	1.21	330.89	5,399.1	35.1	19.5	436,041.86	797,081.79	32° 11' 42.537 N	103° 22' 22.687 W
5,425.0	1.11	318.58	5,424.1	35.5	19.2	436,042.27	797,081.50	32° 11' 42.541 N	103° 22' 22.690 W
5,450.0	1.21	322.68	5,449.1	35.9	18.9	436,042.66	797,081.18	32° 11' 42.545 N	103° 22' 22.694 W
5,475.0	1.19	325.44	5,474.1	36.3	18.6	436,043.09	797,080.87	32° 11' 42.549 N	103° 22' 22.697 W
5,500.0	1.17	318.66	5,499.1	36.7	18.3	436,043.49	797,080.56	32° 11' 42.553 N	103° 22' 22.701 W
5,525.0	1.20	323.41	5,524.1	37.1	17.9	436,043.89	797,080.23	32° 11' 42.557 N	103° 22' 22.705 W
5,550.0	1.15	319.00	5,549.1	37.5	17.6	436,044.29	797,079.91	32° 11' 42.561 N	103° 22' 22.708 W
5,575.0	1.15	322.69	5,574.1	37.9	17.3	436,044.68	797,079.59	32° 11' 42.565 N	103° 22' 22.712 W
5,600.0	1.21	322.83	5,599.1	38.3	17.0	436,045.09	797,079.28	32° 11' 42.569 N	103° 22' 22.716 W
5,625.0	1.21	325.46	5,624.0	38.7	16.7	436,045.52	797,078.97	32° 11' 42.574 N	103° 22' 22.719 W
5,650.0	1.21	318.86	5,649.0	39.1	16.4	436,045.94	797,078.65	32° 11' 42.578 N	103° 22' 22.723 W
5,675.0	1.22	322.50	5,674.0	39.5	16.0	436,046.35	797,078.32	32° 11' 42.582 N	103° 22' 22.727 W
5,700.0	1.19	321.69	5,699.0	40.0	15.7	436,046.76	797,077.99	32° 11' 42.586 N	103° 22' 22.730 W
5,725.0	1.13	324.18	5,724.0	40.4	15.4	436,047.16	797,077.69	32° 11' 42.590 N	103° 22' 22.734 W
5,750.0	1.15	323.90	5,749.0	40.8	15.1	436,047.57	797,077.39	32° 11' 42.594 N	103° 22' 22.737 W
5,775.0	1.21	327.64	5,774.0	41.2	14.8	436,047.99	797,077.11	32° 11' 42.598 N	103° 22' 22.741 W
5,800.0	1.11	323.02	5,799.0	41.6	14.5	436,048.41	797,076.82	32° 11' 42.602 N	103° 22' 22.744 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,825.0	1.17	325.25	5,824.0	42.0	14.2	436,048.81	797,076.53	32° 11' 42.606 N	103° 22' 22.747 W
5,850.0	1.16	323.10	5,849.0	42.4	13.9	436,049.22	797,076.23	32° 11' 42.611 N	103° 22' 22.751 W
5,875.0	1.18	325.47	5,874.0	42.8	13.6	436,049.64	797,075.93	32° 11' 42.615 N	103° 22' 22.754 W
5,900.0	1.09	320.09	5,899.0	43.2	13.3	436,050.03	797,075.63	32° 11' 42.619 N	103° 22' 22.757 W
5,925.0	1.25	329.47	5,924.0	43.7	13.0	436,050.45	797,075.34	32° 11' 42.623 N	103° 22' 22.761 W
5,950.0	1.18	329.98	5,949.0	44.1	12.8	436,050.91	797,075.08	32° 11' 42.627 N	103° 22' 22.764 W
5,975.0	1.46	342.87	5,974.0	44.6	12.6	436,051.43	797,074.85	32° 11' 42.633 N	103° 22' 22.766 W
6,000.0	1.17	333.04	5,999.0	45.2	12.3	436,051.97	797,074.64	32° 11' 42.638 N	103° 22' 22.769 W
6,025.0	1.02	318.96	6,024.0	45.6	12.1	436,052.36	797,074.38	32° 11' 42.642 N	103° 22' 22.772 W
6,050.0	1.16	333.85	6,049.0	46.0	11.8	436,052.76	797,074.12	32° 11' 42.646 N	103° 22' 22.775 W
6,075.0	1.22	332.12	6,074.0	46.4	11.6	436,053.22	797,073.89	32° 11' 42.650 N	103° 22' 22.777 W
6,100.0	1.15	333.28	6,098.9	46.9	11.4	436,053.68	797,073.65	32° 11' 42.655 N	103° 22' 22.780 W
6,125.0	1.18	332.31	6,123.9	47.3	11.1	436,054.13	797,073.42	32° 11' 42.659 N	103° 22' 22.783 W
6,150.0	1.22	337.99	6,148.9	47.8	10.9	436,054.61	797,073.20	32° 11' 42.664 N	103° 22' 22.785 W
6,175.0	1.26	337.45	6,173.9	48.3	10.7	436,055.11	797,072.99	32° 11' 42.669 N	103° 22' 22.788 W
6,200.0	1.34	341.84	6,198.9	48.8	10.5	436,055.64	797,072.80	32° 11' 42.674 N	103° 22' 22.790 W
6,225.0	1.24	342.50	6,223.9	49.4	10.3	436,056.17	797,072.62	32° 11' 42.680 N	103° 22' 22.792 W
6,250.0	1.20	339.07	6,248.9	49.9	10.2	436,056.68	797,072.45	32° 11' 42.685 N	103° 22' 22.794 W
6,275.0	1.22	336.11	6,273.9	50.4	10.0	436,057.16	797,072.25	32° 11' 42.689 N	103° 22' 22.796 W
6,300.0	1.20	339.63	6,298.9	50.9	9.8	436,057.65	797,072.05	32° 11' 42.694 N	103° 22' 22.798 W
6,325.0	1.26	338.20	6,323.9	51.4	9.6	436,058.15	797,071.86	32° 11' 42.699 N	103° 22' 22.801 W
6,350.0	1.24	343.86	6,348.9	51.9	9.4	436,058.67	797,071.68	32° 11' 42.704 N	103° 22' 22.803 W
6,375.0	1.20	344.32	6,373.9	52.4	9.2	436,059.18	797,071.53	32° 11' 42.709 N	103° 22' 22.804 W
6,400.0	1.18	346.46	6,398.9	52.9	9.1	436,059.68	797,071.40	32° 11' 42.714 N	103° 22' 22.806 W
6,425.0	1.13	343.29	6,423.9	53.4	9.0	436,060.17	797,071.27	32° 11' 42.719 N	103° 22' 22.807 W
6,450.0	1.20	346.40	6,448.9	53.9	8.8	436,060.66	797,071.14	32° 11' 42.724 N	103° 22' 22.809 W
6,475.0	1.15	345.56	6,473.9	54.4	8.7	436,061.16	797,071.01	32° 11' 42.729 N	103° 22' 22.810 W
6,500.0	1.26	347.80	6,498.9	54.9	8.6	436,061.67	797,070.89	32° 11' 42.734 N	103° 22' 22.811 W
6,525.0	1.13	344.54	6,523.9	55.4	8.5	436,062.17	797,070.77	32° 11' 42.739 N	103° 22' 22.813 W
6,550.0	1.23	345.90	6,548.8	55.9	8.3	436,062.67	797,070.64	32° 11' 42.744 N	103° 22' 22.814 W
6,575.0	1.20	348.07	6,573.8	56.4	8.2	436,063.19	797,070.52	32° 11' 42.749 N	103° 22' 22.816 W
6,600.0	1.20	344.83	6,598.8	56.9	8.1	436,063.70	797,070.40	32° 11' 42.754 N	103° 22' 22.817 W
6,625.0	1.20	348.07	6,623.8	57.4	8.0	436,064.21	797,070.27	32° 11' 42.759 N	103° 22' 22.818 W
6,650.0	1.19	346.03	6,648.8	57.9	7.9	436,064.71	797,070.16	32° 11' 42.764 N	103° 22' 22.820 W
6,675.0	1.28	349.86	6,673.8	58.4	7.7	436,065.24	797,070.05	32° 11' 42.770 N	103° 22' 22.821 W
6,700.0	1.19	345.00	6,698.8	59.0	7.6	436,065.77	797,069.93	32° 11' 42.775 N	103° 22' 22.822 W
6,725.0	1.27	348.10	6,723.8	59.5	7.5	436,066.29	797,069.81	32° 11' 42.780 N	103° 22' 22.824 W
6,750.0	1.21	345.33	6,748.8	60.0	7.4	436,066.82	797,069.68	32° 11' 42.785 N	103° 22' 22.825 W
6,775.0	1.22	345.83	6,773.8	60.5	7.3	436,067.33	797,069.55	32° 11' 42.790 N	103° 22' 22.826 W
6,800.0	1.19	344.65	6,798.8	61.0	7.1	436,067.84	797,069.42	32° 11' 42.795 N	103° 22' 22.828 W
6,825.0	1.26	344.66	6,823.8	61.6	7.0	436,068.35	797,069.27	32° 11' 42.800 N	103° 22' 22.830 W
6,850.0	1.23	346.42	6,848.8	62.1	6.8	436,068.88	797,069.14	32° 11' 42.806 N	103° 22' 22.831 W
6,875.0	1.29	346.97	6,873.8	62.6	6.7	436,069.41	797,069.01	32° 11' 42.811 N	103° 22' 22.833 W
6,900.0	1.16	345.56	6,898.8	63.1	6.6	436,069.93	797,068.89	32° 11' 42.816 N	103° 22' 22.834 W
6,925.0	1.24	343.21	6,923.8	63.6	6.4	436,070.44	797,068.74	32° 11' 42.821 N	103° 22' 22.836 W
6,950.0	1.26	347.60	6,948.8	64.2	6.3	436,070.96	797,068.61	32° 11' 42.826 N	103° 22' 22.837 W
6,975.0	1.31	345.49	6,973.7	64.7	6.2	436,071.51	797,068.48	32° 11' 42.832 N	103° 22' 22.839 W
7,000.0	1.28	347.57	6,998.7	65.3	6.0	436,072.06	797,068.34	32° 11' 42.837 N	103° 22' 22.840 W
7,025.0	1.17	341.92	7,023.7	65.8	5.9	436,072.57	797,068.20	32° 11' 42.842 N	103° 22' 22.842 W
7,050.0	1.25	345.28	7,048.7	66.3	5.8	436,073.08	797,068.06	32° 11' 42.847 N	103° 22' 22.843 W
7,075.0	1.19	343.95	7,073.7	66.8	5.6	436,073.59	797,067.92	32° 11' 42.852 N	103° 22' 22.845 W
7,100.0	1.21	323.64	7,098.7	67.3	5.4	436,074.06	797,067.79	32° 11' 42.857 N	103° 22' 22.847 W
7,125.0	1.50	292.48	7,123.7	67.6	4.9	436,074.39	797,067.23	32° 11' 42.860 N	103° 22' 22.853 W
7,150.0	1.82	284.32	7,148.7	67.8	4.2	436,074.62	797,066.54	32° 11' 42.863 N	103° 22' 22.861 W
7,175.0	1.81	286.68	7,173.7	68.0	3.5	436,074.83	797,065.78	32° 11' 42.865 N	103° 22' 22.870 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,200.0	1.78	282.96	7,198.7	68.2	2.7	436,075.03	797,065.02	32° 11' 42.867 N	103° 22' 22.878 W
7,225.0	1.84	287.23	7,223.7	68.4	2.0	436,075.23	797,064.26	32° 11' 42.869 N	103° 22' 22.887 W
7,250.0	1.77	285.24	7,248.7	68.7	1.2	436,075.45	797,063.50	32° 11' 42.871 N	103° 22' 22.896 W
7,275.0	1.84	285.62	7,273.6	68.9	0.4	436,075.66	797,062.75	32° 11' 42.873 N	103° 22' 22.905 W
7,300.0	1.73	284.91	7,298.6	69.1	-0.3	436,075.87	797,061.99	32° 11' 42.875 N	103° 22' 22.913 W
7,325.0	1.72	284.68	7,323.6	69.3	-1.0	436,076.06	797,061.27	32° 11' 42.877 N	103° 22' 22.922 W
7,350.0	1.69	286.56	7,348.6	69.5	-1.7	436,076.26	797,060.55	32° 11' 42.879 N	103° 22' 22.930 W
7,375.0	1.46	275.32	7,373.6	69.6	-2.4	436,076.40	797,059.88	32° 11' 42.881 N	103° 22' 22.938 W
7,400.0	1.08	241.66	7,398.6	69.5	-2.9	436,076.31	797,059.36	32° 11' 42.880 N	103° 22' 22.944 W
7,425.0	1.05	220.35	7,423.6	69.2	-3.3	436,076.03	797,059.00	32° 11' 42.877 N	103° 22' 22.948 W
7,450.0	1.11	218.70	7,448.6	68.9	-3.6	436,075.66	797,058.70	32° 11' 42.874 N	103° 22' 22.952 W
7,475.0	1.10	219.91	7,473.6	68.5	-3.9	436,075.29	797,058.39	32° 11' 42.870 N	103° 22' 22.955 W
7,500.0	1.08	220.38	7,498.6	68.1	-4.2	436,074.93	797,058.09	32° 11' 42.866 N	103° 22' 22.959 W
7,525.0	1.05	218.93	7,523.6	67.8	-4.5	436,074.57	797,057.79	32° 11' 42.863 N	103° 22' 22.963 W
7,550.0	1.08	217.17	7,548.6	67.4	-4.8	436,074.20	797,057.50	32° 11' 42.859 N	103° 22' 22.966 W
7,575.0	1.01	221.68	7,573.6	67.1	-5.1	436,073.85	797,057.22	32° 11' 42.856 N	103° 22' 22.969 W
7,600.0	1.03	220.89	7,598.6	66.7	-5.4	436,073.52	797,056.92	32° 11' 42.853 N	103° 22' 22.973 W
7,625.0	1.04	216.37	7,623.6	66.4	-5.7	436,073.16	797,056.64	32° 11' 42.849 N	103° 22' 22.976 W
7,650.0	1.05	215.58	7,648.5	66.0	-5.9	436,072.80	797,056.37	32° 11' 42.846 N	103° 22' 22.979 W
7,675.0	0.91	213.22	7,673.5	65.6	-6.2	436,072.44	797,056.13	32° 11' 42.842 N	103° 22' 22.982 W
7,700.0	0.96	217.72	7,698.5	65.3	-6.4	436,072.11	797,055.89	32° 11' 42.839 N	103° 22' 22.985 W
7,725.0	0.87	219.69	7,723.5	65.0	-6.7	436,071.80	797,055.64	32° 11' 42.836 N	103° 22' 22.988 W
7,750.0	0.84	220.55	7,748.5	64.7	-6.9	436,071.51	797,055.40	32° 11' 42.833 N	103° 22' 22.991 W
7,775.0	0.71	223.69	7,773.5	64.5	-7.1	436,071.26	797,055.18	32° 11' 42.830 N	103° 22' 22.993 W
7,800.0	0.77	224.30	7,798.5	64.2	-7.3	436,071.03	797,054.95	32° 11' 42.828 N	103° 22' 22.996 W
7,825.0	0.69	220.45	7,823.5	64.0	-7.6	436,070.80	797,054.74	32° 11' 42.826 N	103° 22' 22.998 W
7,850.0	0.66	221.46	7,848.5	63.8	-7.8	436,070.57	797,054.55	32° 11' 42.824 N	103° 22' 23.001 W
7,875.0	0.64	206.45	7,873.5	63.5	-7.9	436,070.34	797,054.39	32° 11' 42.821 N	103° 22' 23.003 W
7,900.0	0.57	193.16	7,898.5	63.3	-8.0	436,070.09	797,054.30	32° 11' 42.819 N	103° 22' 23.004 W
7,925.0	0.71	184.36	7,923.5	63.0	-8.0	436,069.82	797,054.26	32° 11' 42.816 N	103° 22' 23.004 W
7,950.0	0.66	178.17	7,948.5	62.7	-8.0	436,069.52	797,054.25	32° 11' 42.813 N	103° 22' 23.004 W
7,975.0	0.60	187.88	7,973.5	62.4	-8.1	436,069.25	797,054.24	32° 11' 42.811 N	103° 22' 23.004 W
8,000.0	0.62	177.17	7,998.5	62.2	-8.1	436,068.98	797,054.23	32° 11' 42.808 N	103° 22' 23.005 W
8,025.0	0.48	173.01	8,023.5	61.9	-8.1	436,068.74	797,054.25	32° 11' 42.806 N	103° 22' 23.004 W
8,050.0	0.52	174.83	8,048.5	61.7	-8.0	436,068.53	797,054.27	32° 11' 42.803 N	103° 22' 23.004 W
8,075.0	0.57	159.39	8,073.5	61.5	-8.0	436,068.30	797,054.32	32° 11' 42.801 N	103° 22' 23.004 W
8,100.0	0.40	146.43	8,098.5	61.3	-7.9	436,068.11	797,054.41	32° 11' 42.799 N	103° 22' 23.002 W
8,125.0	0.54	149.56	8,123.5	61.1	-7.8	436,067.93	797,054.52	32° 11' 42.798 N	103° 22' 23.001 W
8,150.0	0.54	140.93	8,148.5	60.9	-7.6	436,067.74	797,054.66	32° 11' 42.796 N	103° 22' 23.000 W
8,175.0	0.47	129.03	8,173.5	60.8	-7.5	436,067.58	797,054.81	32° 11' 42.794 N	103° 22' 22.998 W
8,200.0	0.59	133.04	8,198.5	60.6	-7.3	436,067.43	797,054.98	32° 11' 42.793 N	103° 22' 22.996 W
8,225.0	0.54	119.18	8,223.5	60.5	-7.1	436,067.29	797,055.18	32° 11' 42.791 N	103° 22' 22.994 W
8,250.0	0.54	118.92	8,248.5	60.4	-6.9	436,067.17	797,055.39	32° 11' 42.790 N	103° 22' 22.991 W
8,275.0	0.65	112.95	8,273.5	60.3	-6.7	436,067.06	797,055.62	32° 11' 42.789 N	103° 22' 22.989 W
8,300.0	0.60	107.02	8,298.5	60.2	-6.4	436,066.97	797,055.88	32° 11' 42.788 N	103° 22' 22.986 W
8,325.0	0.59	106.06	8,323.5	60.1	-6.2	436,066.89	797,056.13	32° 11' 42.787 N	103° 22' 22.983 W
8,350.0	0.63	106.75	8,348.5	60.0	-5.9	436,066.82	797,056.38	32° 11' 42.786 N	103° 22' 22.980 W
8,375.0	0.63	107.60	8,373.5	59.9	-5.7	436,066.74	797,056.64	32° 11' 42.786 N	103° 22' 22.977 W
8,400.0	0.61	109.86	8,398.5	59.8	-5.4	436,066.65	797,056.90	32° 11' 42.785 N	103° 22' 22.974 W
8,425.0	0.66	108.59	8,423.5	59.8	-5.1	436,066.56	797,057.16	32° 11' 42.784 N	103° 22' 22.971 W
8,450.0	0.60	105.37	8,448.5	59.7	-4.9	436,066.48	797,057.42	32° 11' 42.783 N	103° 22' 22.968 W
8,475.0	0.60	103.72	8,473.5	59.6	-4.6	436,066.41	797,057.68	32° 11' 42.782 N	103° 22' 22.965 W
8,500.0	0.75	113.41	8,498.5	59.5	-4.3	436,066.32	797,057.95	32° 11' 42.781 N	103° 22' 22.961 W
8,525.0	0.77	101.32	8,523.5	59.4	-4.0	436,066.22	797,058.27	32° 11' 42.780 N	103° 22' 22.958 W
8,550.0	0.74	97.90	8,548.5	59.4	-3.7	436,066.16	797,058.59	32° 11' 42.780 N	103° 22' 22.954 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,575.0	0.76	98.65	8,573.5	59.3	-3.4	436,066.12	797,058.92	32° 11' 42.779 N	103° 22' 22.950 W
8,600.0	0.90	96.75	8,598.5	59.3	-3.0	436,066.07	797,059.28	32° 11' 42.779 N	103° 22' 22.946 W
8,625.0	0.83	96.61	8,623.5	59.2	-2.6	436,066.02	797,059.65	32° 11' 42.778 N	103° 22' 22.942 W
8,650.0	0.83	101.47	8,648.5	59.2	-2.3	436,065.97	797,060.01	32° 11' 42.778 N	103° 22' 22.938 W
8,675.0	0.87	97.05	8,673.5	59.1	-1.9	436,065.91	797,060.37	32° 11' 42.777 N	103° 22' 22.933 W
8,700.0	0.89	88.10	8,698.5	59.1	-1.5	436,065.89	797,060.76	32° 11' 42.777 N	103° 22' 22.929 W
8,725.0	0.86	92.72	8,723.5	59.1	-1.2	436,065.89	797,061.14	32° 11' 42.777 N	103° 22' 22.924 W
8,750.0	0.90	98.52	8,748.5	59.1	-0.8	436,065.85	797,061.52	32° 11' 42.776 N	103° 22' 22.920 W
8,775.0	0.89	91.56	8,773.5	59.0	-0.4	436,065.82	797,061.91	32° 11' 42.776 N	103° 22' 22.916 W
8,800.0	0.89	92.88	8,798.5	59.0	0.0	436,065.80	797,062.30	32° 11' 42.776 N	103° 22' 22.911 W
8,825.0	0.91	90.42	8,823.5	59.0	0.4	436,065.79	797,062.69	32° 11' 42.776 N	103° 22' 22.906 W
8,850.0	0.95	90.48	8,848.5	59.0	0.8	436,065.79	797,063.09	32° 11' 42.776 N	103° 22' 22.902 W
8,875.0	0.89	93.43	8,873.5	59.0	1.2	436,065.77	797,063.50	32° 11' 42.775 N	103° 22' 22.897 W
8,900.0	0.92	94.99	8,898.4	58.9	1.6	436,065.74	797,063.89	32° 11' 42.775 N	103° 22' 22.892 W
8,925.0	0.97	85.97	8,923.4	58.9	2.0	436,065.74	797,064.30	32° 11' 42.775 N	103° 22' 22.888 W
8,950.0	0.93	89.28	8,948.4	59.0	2.4	436,065.76	797,064.71	32° 11' 42.775 N	103° 22' 22.883 W
8,975.0	0.96	93.89	8,973.4	58.9	2.8	436,065.75	797,065.13	32° 11' 42.775 N	103° 22' 22.878 W
9,000.0	0.95	92.81	8,998.4	58.9	3.2	436,065.72	797,065.54	32° 11' 42.775 N	103° 22' 22.873 W
9,025.0	1.00	88.29	9,023.4	58.9	3.7	436,065.72	797,065.97	32° 11' 42.775 N	103° 22' 22.868 W
9,050.0	0.90	87.43	9,048.4	58.9	4.1	436,065.73	797,066.38	32° 11' 42.775 N	103° 22' 22.863 W
9,075.0	0.97	93.21	9,073.4	58.9	4.5	436,065.73	797,066.79	32° 11' 42.775 N	103° 22' 22.859 W
9,100.0	0.95	91.74	9,098.4	58.9	4.9	436,065.71	797,067.21	32° 11' 42.774 N	103° 22' 22.854 W
9,125.0	0.92	97.95	9,123.4	58.9	5.3	436,065.68	797,067.61	32° 11' 42.774 N	103° 22' 22.849 W
9,150.0	0.84	100.99	9,148.4	58.8	5.7	436,065.62	797,067.99	32° 11' 42.773 N	103° 22' 22.845 W
9,175.0	0.76	103.76	9,173.4	58.7	6.0	436,065.54	797,068.33	32° 11' 42.773 N	103° 22' 22.841 W
9,200.0	0.80	104.22	9,198.4	58.7	6.4	436,065.46	797,068.66	32° 11' 42.772 N	103° 22' 22.837 W
9,225.0	0.85	108.81	9,223.4	58.6	6.7	436,065.36	797,069.01	32° 11' 42.771 N	103° 22' 22.833 W
9,250.0	0.84	114.92	9,248.4	58.4	7.1	436,065.22	797,069.35	32° 11' 42.769 N	103° 22' 22.829 W
9,275.0	0.78	109.50	9,273.4	58.3	7.4	436,065.09	797,069.68	32° 11' 42.768 N	103° 22' 22.825 W
9,300.0	0.81	109.58	9,298.4	58.2	7.7	436,064.97	797,070.00	32° 11' 42.767 N	103° 22' 22.821 W
9,325.0	0.92	122.85	9,323.4	58.0	8.0	436,064.80	797,070.34	32° 11' 42.765 N	103° 22' 22.818 W
9,350.0	0.82	127.16	9,348.4	57.8	8.4	436,064.59	797,070.65	32° 11' 42.763 N	103° 22' 22.814 W
9,375.0	0.85	118.95	9,373.4	57.6	8.7	436,064.39	797,070.95	32° 11' 42.761 N	103° 22' 22.810 W
9,400.0	0.87	121.43	9,398.4	57.4	9.0	436,064.20	797,071.28	32° 11' 42.759 N	103° 22' 22.807 W
9,425.0	0.91	124.34	9,423.4	57.2	9.3	436,063.99	797,071.60	32° 11' 42.757 N	103° 22' 22.803 W
9,450.0	0.92	132.58	9,448.4	56.9	9.6	436,063.74	797,071.92	32° 11' 42.755 N	103° 22' 22.799 W
9,475.0	0.94	133.26	9,473.4	56.7	9.9	436,063.46	797,072.21	32° 11' 42.752 N	103° 22' 22.796 W
9,500.0	0.89	133.55	9,498.4	56.4	10.2	436,063.19	797,072.50	32° 11' 42.749 N	103° 22' 22.793 W
9,525.0	0.89	127.51	9,523.4	56.1	10.5	436,062.94	797,072.80	32° 11' 42.747 N	103° 22' 22.789 W
9,550.0	0.94	136.21	9,548.4	55.9	10.8	436,062.67	797,073.09	32° 11' 42.744 N	103° 22' 22.786 W
9,575.0	0.93	140.32	9,573.4	55.6	11.1	436,062.37	797,073.36	32° 11' 42.741 N	103° 22' 22.783 W
9,600.0	1.00	139.97	9,598.4	55.2	11.3	436,062.04	797,073.63	32° 11' 42.738 N	103° 22' 22.779 W
9,625.0	1.14	145.97	9,623.4	54.9	11.6	436,061.67	797,073.91	32° 11' 42.734 N	103° 22' 22.776 W
9,650.0	1.19	149.69	9,648.4	54.4	11.9	436,061.24	797,074.18	32° 11' 42.730 N	103° 22' 22.773 W
9,675.0	1.28	155.15	9,673.3	54.0	12.1	436,060.76	797,074.43	32° 11' 42.725 N	103° 22' 22.770 W
9,700.0	1.31	156.56	9,698.3	53.4	12.4	436,060.25	797,074.66	32° 11' 42.720 N	103° 22' 22.768 W
9,725.0	1.35	157.96	9,723.3	52.9	12.6	436,059.71	797,074.89	32° 11' 42.714 N	103° 22' 22.765 W
9,750.0	1.37	163.10	9,748.3	52.4	12.8	436,059.15	797,075.09	32° 11' 42.709 N	103° 22' 22.763 W
9,775.0	1.34	157.78	9,773.3	51.8	13.0	436,058.60	797,075.28	32° 11' 42.703 N	103° 22' 22.761 W
9,800.0	1.37	159.18	9,798.3	51.2	13.2	436,058.05	797,075.50	32° 11' 42.698 N	103° 22' 22.758 W
9,825.0	1.36	160.53	9,823.3	50.7	13.4	436,057.49	797,075.70	32° 11' 42.692 N	103° 22' 22.756 W
9,850.0	1.27	164.29	9,848.3	50.1	13.6	436,056.94	797,075.88	32° 11' 42.687 N	103° 22' 22.754 W
9,875.0	1.22	167.33	9,873.3	49.6	13.7	436,056.41	797,076.01	32° 11' 42.682 N	103° 22' 22.752 W
9,900.0	1.19	166.99	9,898.3	49.1	13.8	436,055.90	797,076.13	32° 11' 42.677 N	103° 22' 22.751 W
9,925.0	1.18	169.56	9,923.3	48.6	13.9	436,055.40	797,076.23	32° 11' 42.672 N	103° 22' 22.750 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,950.0	1.06	168.67	9,948.3	48.1	14.0	436,054.92	797,076.33	32° 11' 42.667 N	103° 22' 22.749 W
9,975.0	0.99	171.45	9,973.3	47.7	14.1	436,054.48	797,076.40	32° 11' 42.662 N	103° 22' 22.748 W
10,000.0	1.02	173.52	9,998.3	47.2	14.2	436,054.04	797,076.46	32° 11' 42.658 N	103° 22' 22.747 W
10,025.0	0.94	173.96	10,023.3	46.8	14.2	436,053.62	797,076.51	32° 11' 42.654 N	103° 22' 22.747 W
10,050.0	0.80	173.85	10,048.3	46.4	14.2	436,053.24	797,076.55	32° 11' 42.650 N	103° 22' 22.746 W
10,075.0	0.69	172.93	10,073.3	46.1	14.3	436,052.92	797,076.59	32° 11' 42.647 N	103° 22' 22.746 W
10,100.0	0.60	173.14	10,098.3	45.8	14.3	436,052.64	797,076.62	32° 11' 42.644 N	103° 22' 22.746 W
10,125.0	0.65	177.26	10,123.3	45.6	14.3	436,052.36	797,076.64	32° 11' 42.642 N	103° 22' 22.745 W
10,150.0	0.59	179.14	10,148.3	45.3	14.4	436,052.09	797,076.65	32° 11' 42.639 N	103° 22' 22.745 W
10,175.0	0.53	181.42	10,173.3	45.1	14.4	436,051.85	797,076.65	32° 11' 42.636 N	103° 22' 22.745 W
10,200.0	0.52	175.81	10,198.3	44.8	14.4	436,051.62	797,076.65	32° 11' 42.634 N	103° 22' 22.745 W
10,225.0	0.42	169.49	10,223.3	44.6	14.4	436,051.42	797,076.68	32° 11' 42.632 N	103° 22' 22.745 W
10,250.0	0.29	157.78	10,248.3	44.5	14.4	436,051.27	797,076.72	32° 11' 42.631 N	103° 22' 22.745 W
10,275.0	0.37	158.73	10,273.3	44.3	14.5	436,051.14	797,076.77	32° 11' 42.629 N	103° 22' 22.744 W
10,300.0	0.29	160.15	10,298.3	44.2	14.5	436,051.00	797,076.82	32° 11' 42.628 N	103° 22' 22.744 W
10,325.0	0.32	136.26	10,323.3	44.1	14.6	436,050.89	797,076.89	32° 11' 42.627 N	103° 22' 22.743 W
10,350.0	0.35	117.27	10,348.3	44.0	14.7	436,050.81	797,077.01	32° 11' 42.626 N	103° 22' 22.741 W
10,375.0	0.33	105.84	10,373.3	44.0	14.8	436,050.75	797,077.15	32° 11' 42.626 N	103° 22' 22.740 W
10,400.0	0.42	103.19	10,398.3	43.9	15.0	436,050.71	797,077.31	32° 11' 42.625 N	103° 22' 22.738 W
10,425.0	0.42	93.17	10,423.3	43.9	15.2	436,050.68	797,077.49	32° 11' 42.625 N	103° 22' 22.736 W
10,450.0	0.51	84.47	10,448.2	43.9	15.4	436,050.69	797,077.69	32° 11' 42.625 N	103° 22' 22.733 W
10,475.0	0.52	66.34	10,473.2	43.9	15.6	436,050.75	797,077.90	32° 11' 42.625 N	103° 22' 22.731 W
10,500.0	0.63	58.84	10,498.2	44.1	15.8	436,050.86	797,078.13	32° 11' 42.627 N	103° 22' 22.728 W
10,525.0	0.63	59.22	10,523.2	44.2	16.1	436,051.00	797,078.36	32° 11' 42.628 N	103° 22' 22.726 W
10,550.0	0.66	55.60	10,548.2	44.4	16.3	436,051.16	797,078.60	32° 11' 42.629 N	103° 22' 22.723 W
10,575.0	0.64	59.56	10,573.2	44.5	16.5	436,051.31	797,078.84	32° 11' 42.631 N	103° 22' 22.720 W
10,600.0	0.70	59.73	10,598.2	44.7	16.8	436,051.46	797,079.09	32° 11' 42.632 N	103° 22' 22.717 W
10,625.0	0.83	54.61	10,623.2	44.8	17.1	436,051.64	797,079.37	32° 11' 42.634 N	103° 22' 22.714 W
10,650.0	0.94	47.31	10,648.2	45.1	17.4	436,051.88	797,079.67	32° 11' 42.637 N	103° 22' 22.710 W
10,675.0	0.95	47.29	10,673.2	45.4	17.7	436,052.16	797,079.97	32° 11' 42.639 N	103° 22' 22.707 W
10,700.0	0.95	51.58	10,698.2	45.6	18.0	436,052.43	797,080.28	32° 11' 42.642 N	103° 22' 22.703 W
10,725.0	1.05	54.10	10,723.2	45.9	18.3	436,052.69	797,080.63	32° 11' 42.644 N	103° 22' 22.699 W
10,750.0	1.24	55.15	10,748.2	46.2	18.7	436,052.98	797,081.04	32° 11' 42.647 N	103° 22' 22.694 W
10,775.0	1.20	57.20	10,773.2	46.5	19.2	436,053.28	797,081.48	32° 11' 42.650 N	103° 22' 22.689 W
10,800.0	1.17	57.23	10,798.2	46.8	19.6	436,053.56	797,081.92	32° 11' 42.653 N	103° 22' 22.684 W
10,825.0	1.08	60.89	10,823.2	47.0	20.0	436,053.81	797,082.34	32° 11' 42.655 N	103° 22' 22.679 W
10,850.0	0.97	68.95	10,848.2	47.2	20.4	436,054.00	797,082.74	32° 11' 42.657 N	103° 22' 22.674 W
10,875.0	0.94	67.09	10,873.2	47.4	20.8	436,054.16	797,083.13	32° 11' 42.659 N	103° 22' 22.670 W
10,900.0	0.70	107.41	10,898.2	47.4	21.2	436,054.19	797,083.46	32° 11' 42.659 N	103° 22' 22.666 W
10,925.0	0.76	103.14	10,923.2	47.3	21.5	436,054.11	797,083.77	32° 11' 42.658 N	103° 22' 22.662 W
10,950.0	0.86	114.15	10,948.2	47.2	21.8	436,053.99	797,084.10	32° 11' 42.657 N	103° 22' 22.659 W
10,975.0	0.92	125.45	10,973.2	47.0	22.1	436,053.80	797,084.44	32° 11' 42.655 N	103° 22' 22.655 W
11,000.0	1.04	138.81	10,998.2	46.7	22.5	436,053.51	797,084.75	32° 11' 42.652 N	103° 22' 22.651 W
11,025.0	0.96	138.10	11,023.2	46.4	22.7	436,053.19	797,085.04	32° 11' 42.649 N	103° 22' 22.648 W
11,050.0	0.97	141.71	11,048.2	46.1	23.0	436,052.87	797,085.31	32° 11' 42.646 N	103° 22' 22.645 W
11,075.0	1.00	140.45	11,073.2	45.7	23.3	436,052.53	797,085.58	32° 11' 42.642 N	103° 22' 22.641 W
11,100.0	0.95	140.85	11,098.2	45.4	23.6	436,052.20	797,085.85	32° 11' 42.639 N	103° 22' 22.638 W
11,125.0	0.83	144.32	11,123.2	45.1	23.8	436,051.89	797,086.09	32° 11' 42.636 N	103° 22' 22.636 W
11,150.0	0.52	145.37	11,148.2	44.9	24.0	436,051.65	797,086.26	32° 11' 42.634 N	103° 22' 22.634 W
11,175.0	0.26	159.51	11,173.2	44.7	24.0	436,051.51	797,086.34	32° 11' 42.632 N	103° 22' 22.633 W
11,200.0	0.13	155.78	11,198.2	44.6	24.1	436,051.43	797,086.37	32° 11' 42.631 N	103° 22' 22.632 W
11,225.0	0.05	164.48	11,223.2	44.6	24.1	436,051.39	797,086.39	32° 11' 42.631 N	103° 22' 22.632 W
11,250.0	0.10	9.97	11,248.2	44.6	24.1	436,051.40	797,086.39	32° 11' 42.631 N	103° 22' 22.632 W
11,275.0	0.33	1.37	11,273.2	44.7	24.1	436,051.50	797,086.40	32° 11' 42.632 N	103° 22' 22.632 W
11,300.0	0.14	309.07	11,298.2	44.8	24.1	436,051.59	797,086.38	32° 11' 42.633 N	103° 22' 22.632 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,325.0	0.11	359.83	11,323.2	44.8	24.1	436,051.63	797,086.35	32° 11' 42.633 N	103° 22' 22.633 W
11,350.0	0.25	326.44	11,348.2	44.9	24.0	436,051.70	797,086.32	32° 11' 42.634 N	103° 22' 22.633 W
11,375.0	0.39	312.67	11,373.2	45.0	23.9	436,051.80	797,086.23	32° 11' 42.635 N	103° 22' 22.634 W
11,400.0	0.52	308.93	11,398.2	45.1	23.8	436,051.93	797,086.08	32° 11' 42.636 N	103° 22' 22.636 W
11,425.0	0.61	303.38	11,423.2	45.3	23.6	436,052.08	797,085.88	32° 11' 42.638 N	103° 22' 22.638 W
11,450.0	0.71	304.97	11,448.2	45.4	23.3	436,052.24	797,085.64	32° 11' 42.640 N	103° 22' 22.641 W
11,475.0	0.86	307.25	11,473.2	45.6	23.1	436,052.44	797,085.36	32° 11' 42.642 N	103° 22' 22.644 W
11,500.0	0.99	305.40	11,498.2	45.9	22.7	436,052.68	797,085.04	32° 11' 42.644 N	103° 22' 22.648 W
11,525.0	0.95	295.17	11,523.1	46.1	22.4	436,052.89	797,084.68	32° 11' 42.646 N	103° 22' 22.652 W
11,540.0	0.93	288.65	11,538.1	46.2	22.2	436,052.99	797,084.45	32° 11' 42.647 N	103° 22' 22.655 W
11,718.0	1.50	251.40	11,716.1	45.9	18.6	436,052.70	797,080.87	32° 11' 42.645 N	103° 22' 22.696 W
11,813.0	1.70	229.90	11,811.1	44.6	16.3	436,051.40	797,078.61	32° 11' 42.632 N	103° 22' 22.723 W
Tie into PH @ 11813.0' MD / 11811.1' TVD									
11,847.0	1.50	218.50	11,845.1	43.9	15.7	436,050.73	797,077.95	32° 11' 42.625 N	103° 22' 22.730 W
11,878.0	1.70	206.20	11,876.0	43.2	15.2	436,050.00	797,077.50	32° 11' 42.618 N	103° 22' 22.736 W
11,910.0	2.20	189.50	11,908.0	42.2	14.9	436,048.97	797,077.19	32° 11' 42.608 N	103° 22' 22.740 W
11,941.0	4.70	209.40	11,939.0	40.5	14.2	436,047.27	797,076.46	32° 11' 42.591 N	103° 22' 22.748 W
11,973.0	9.40	212.30	11,970.7	37.1	12.1	436,043.92	797,074.42	32° 11' 42.558 N	103° 22' 22.772 W
12,004.0	15.50	208.10	12,001.0	31.3	8.8	436,038.12	797,071.12	32° 11' 42.501 N	103° 22' 22.811 W
12,035.0	21.60	204.40	12,030.4	22.5	4.5	436,029.26	797,066.80	32° 11' 42.414 N	103° 22' 22.862 W
12,067.0	23.00	204.30	12,060.0	11.4	-0.5	436,018.20	797,061.80	32° 11' 42.305 N	103° 22' 22.922 W
12,098.0	24.50	204.80	12,088.3	0.0	-5.7	436,006.84	797,056.61	32° 11' 42.193 N	103° 22' 22.983 W
12,129.0	28.80	201.80	12,116.0	-12.7	-11.2	435,994.07	797,051.14	32° 11' 42.067 N	103° 22' 23.048 W
12,161.0	33.40	199.10	12,143.4	-28.2	-16.9	435,978.58	797,045.39	32° 11' 41.914 N	103° 22' 23.117 W
12,192.0	36.50	196.70	12,168.8	-45.1	-22.4	435,961.68	797,039.95	32° 11' 41.747 N	103° 22' 23.182 W
12,223.0	38.80	195.10	12,193.4	-63.3	-27.5	435,943.47	797,034.77	32° 11' 41.568 N	103° 22' 23.244 W
12,255.0	40.50	193.70	12,218.0	-83.1	-32.6	435,923.69	797,029.69	32° 11' 41.373 N	103° 22' 23.305 W
12,286.0	42.20	192.60	12,241.3	-103.0	-37.3	435,903.75	797,025.04	32° 11' 41.176 N	103° 22' 23.361 W
12,318.0	46.70	190.00	12,264.1	-125.0	-41.6	435,881.78	797,020.67	32° 11' 40.959 N	103° 22' 23.415 W
12,349.0	51.40	186.30	12,284.4	-148.2	-44.9	435,858.61	797,017.38	32° 11' 40.730 N	103° 22' 23.455 W
12,381.0	53.90	181.20	12,303.9	-173.6	-46.6	435,833.25	797,015.73	32° 11' 40.479 N	103° 22' 23.477 W
12,412.0	54.70	177.90	12,322.0	-198.7	-46.4	435,808.08	797,015.93	32° 11' 40.230 N	103° 22' 23.477 W
12,444.0	56.60	176.80	12,340.0	-225.1	-45.1	435,781.69	797,017.16	32° 11' 39.968 N	103° 22' 23.466 W
12,475.0	59.00	175.90	12,356.5	-251.3	-43.5	435,755.51	797,018.83	32° 11' 39.709 N	103° 22' 23.449 W
12,506.0	61.50	175.90	12,371.9	-278.1	-41.5	435,728.67	797,020.75	32° 11' 39.444 N	103° 22' 23.429 W
12,538.0	63.80	177.40	12,386.6	-306.5	-39.9	435,700.30	797,022.41	32° 11' 39.163 N	103° 22' 23.413 W
12,569.0	65.30	178.80	12,399.9	-334.5	-39.0	435,672.32	797,023.34	32° 11' 38.886 N	103° 22' 23.405 W
12,601.0	69.80	179.10	12,412.2	-364.0	-38.4	435,642.76	797,023.88	32° 11' 38.593 N	103° 22' 23.402 W
12,632.0	75.50	178.90	12,421.4	-393.6	-37.9	435,613.19	797,024.40	32° 11' 38.301 N	103° 22' 23.399 W
12,663.0	80.30	177.70	12,427.9	-423.9	-37.0	435,582.90	797,025.30	32° 11' 38.001 N	103° 22' 23.392 W
12,694.0	82.50	177.20	12,432.5	-454.5	-35.6	435,552.28	797,026.66	32° 11' 37.698 N	103° 22' 23.379 W
12,725.0	82.40	177.00	12,436.6	-485.2	-34.1	435,521.59	797,028.22	32° 11' 37.394 N	103° 22' 23.364 W
12,757.0	83.10	177.70	12,440.6	-516.9	-32.6	435,489.88	797,029.68	32° 11' 37.080 N	103° 22' 23.350 W
12,788.0	84.90	178.90	12,443.9	-547.7	-31.7	435,459.06	797,030.60	32° 11' 36.775 N	103° 22' 23.343 W
12,819.0	86.40	179.30	12,446.2	-578.6	-31.2	435,428.16	797,031.08	32° 11' 36.469 N	103° 22' 23.340 W
12,851.0	86.90	180.00	12,448.1	-610.6	-31.0	435,396.21	797,031.28	32° 11' 36.153 N	103° 22' 23.342 W
12,945.0	86.90	180.70	12,453.2	-704.4	-31.6	435,302.35	797,030.70	32° 11' 35.224 N	103° 22' 23.358 W
13,039.0	87.80	180.90	12,457.5	-798.3	-32.9	435,208.46	797,029.39	32° 11' 34.295 N	103° 22' 23.383 W
13,133.0	85.60	180.00	12,462.9	-892.2	-33.6	435,114.63	797,028.66	32° 11' 33.367 N	103° 22' 23.401 W
13,228.0	88.00	178.20	12,468.2	-987.0	-32.2	435,019.80	797,030.15	32° 11' 32.428 N	103° 22' 23.394 W
13,322.0	90.60	178.20	12,469.4	-1,080.9	-29.2	434,925.86	797,033.10	32° 11' 31.499 N	103° 22' 23.369 W
13,416.0	90.00	178.60	12,468.9	-1,174.9	-26.6	434,831.90	797,035.72	32° 11' 30.569 N	103° 22' 23.348 W
13,510.0	91.10	178.10	12,468.0	-1,268.9	-23.9	434,737.95	797,038.43	32° 11' 29.639 N	103° 22' 23.327 W
13,604.0	89.70	176.30	12,467.3	-1,362.7	-19.3	434,644.07	797,043.02	32° 11' 28.709 N	103° 22' 23.283 W
13,698.0	91.70	175.90	12,466.2	-1,456.5	-12.9	434,550.30	797,049.41	32° 11' 27.781 N	103° 22' 23.218 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,792.0	91.80	177.20	12,463.3	-1,550.3	-7.2	434,456.51	797,055.07	32° 11' 26.852 N	103° 22' 23.162 W
13,887.0	90.10	180.20	12,461.7	-1,645.2	-5.1	434,361.56	797,057.22	32° 11' 25.913 N	103° 22' 23.147 W
13,981.0	93.10	182.60	12,459.1	-1,739.2	-7.4	434,267.65	797,054.93	32° 11' 24.984 N	103° 22' 23.184 W
14,075.0	87.80	183.20	12,458.4	-1,833.0	-12.1	434,173.80	797,050.17	32° 11' 24.055 N	103° 22' 23.249 W
14,169.0	87.40	178.90	12,462.3	-1,926.9	-13.8	434,079.92	797,048.45	32° 11' 23.127 N	103° 22' 23.278 W
14,263.0	90.00	185.60	12,464.5	-2,020.7	-17.5	433,986.08	797,044.76	32° 11' 22.198 N	103° 22' 23.331 W
14,357.0	89.00	183.90	12,465.3	-2,114.4	-25.3	433,892.41	797,036.98	32° 11' 21.272 N	103° 22' 23.431 W
14,451.0	91.10	184.60	12,465.2	-2,208.1	-32.3	433,798.68	797,030.01	32° 11' 20.345 N	103° 22' 23.522 W
14,545.0	91.70	184.20	12,462.9	-2,301.8	-39.5	433,704.98	797,022.80	32° 11' 19.419 N	103° 22' 23.616 W
14,640.0	92.30	181.20	12,459.6	-2,396.6	-44.0	433,610.16	797,018.33	32° 11' 18.481 N	103° 22' 23.678 W
14,734.0	87.80	176.10	12,459.5	-2,490.6	-41.8	433,516.24	797,020.55	32° 11' 17.551 N	103° 22' 23.662 W
14,828.0	89.60	177.90	12,461.6	-2,584.4	-36.8	433,422.40	797,025.46	32° 11' 16.622 N	103° 22' 23.614 W
14,922.0	87.40	175.80	12,464.1	-2,678.2	-31.7	433,328.58	797,030.63	32° 11' 15.694 N	103° 22' 23.564 W
15,016.0	87.50	175.60	12,468.3	-2,771.9	-24.6	433,234.94	797,037.67	32° 11' 14.767 N	103° 22' 23.492 W
15,110.0	89.70	178.10	12,470.6	-2,865.7	-19.5	433,141.13	797,042.83	32° 11' 13.838 N	103° 22' 23.441 W
15,204.0	90.00	177.20	12,470.8	-2,959.6	-15.6	433,047.21	797,046.68	32° 11' 12.908 N	103° 22' 23.406 W
15,298.0	90.40	178.60	12,470.5	-3,053.5	-12.2	432,953.27	797,050.13	32° 11' 11.978 N	103° 22' 23.376 W
15,392.0	88.90	177.50	12,471.1	-3,147.5	-9.0	432,859.33	797,053.33	32° 11' 11.048 N	103° 22' 23.349 W
15,486.0	88.30	178.20	12,473.4	-3,241.4	-5.4	432,765.43	797,056.85	32° 11' 10.119 N	103° 22' 23.317 W
15,580.0	89.80	178.80	12,474.9	-3,335.3	-3.0	432,671.48	797,059.31	32° 11' 9.189 N	103° 22' 23.298 W
15,675.0	86.50	176.30	12,478.0	-3,430.2	1.1	432,576.63	797,063.37	32° 11' 8.250 N	103° 22' 23.261 W
15,769.0	87.80	177.50	12,482.7	-3,523.9	6.1	432,482.89	797,068.44	32° 11' 7.322 N	103° 22' 23.212 W
15,863.0	86.10	179.10	12,487.7	-3,617.7	8.9	432,389.07	797,071.23	32° 11' 6.394 N	103° 22' 23.189 W
15,957.0	86.10	179.60	12,494.1	-3,711.5	10.0	432,295.30	797,072.29	32° 11' 5.466 N	103° 22' 23.186 W
16,051.0	85.80	181.10	12,500.7	-3,805.3	9.4	432,201.53	797,071.72	32° 11' 4.538 N	103° 22' 23.203 W
16,146.0	88.10	180.70	12,505.7	-3,900.1	7.9	432,106.69	797,070.23	32° 11' 3.599 N	103° 22' 23.230 W
16,240.0	89.90	180.20	12,507.4	-3,994.1	7.2	432,012.71	797,069.49	32° 11' 2.670 N	103° 22' 23.248 W
16,334.0	89.60	179.50	12,507.8	-4,088.1	7.4	431,918.71	797,069.74	32° 11' 1.739 N	103° 22' 23.255 W
16,429.0	90.50	180.00	12,507.7	-4,183.1	7.9	431,823.71	797,070.15	32° 11' 0.799 N	103° 22' 23.260 W
16,523.0	90.60	180.50	12,506.8	-4,277.1	7.4	431,729.72	797,069.74	32° 10' 59.869 N	103° 22' 23.275 W
16,617.0	91.20	180.20	12,505.3	-4,371.1	6.9	431,635.73	797,069.17	32° 10' 58.939 N	103° 22' 23.291 W
16,712.0	89.80	180.50	12,504.5	-4,466.1	6.3	431,540.74	797,068.59	32° 10' 58.000 N	103° 22' 23.308 W
16,806.0	87.80	179.30	12,506.5	-4,560.0	6.5	431,446.77	797,068.75	32° 10' 57.070 N	103° 22' 23.316 W
16,900.0	89.50	179.80	12,508.7	-4,654.0	7.2	431,352.80	797,069.49	32° 10' 56.140 N	103° 22' 23.317 W
16,994.0	89.30	179.30	12,509.7	-4,748.0	7.9	431,258.81	797,070.23	32° 10' 55.210 N	103° 22' 23.318 W
17,088.0	87.60	175.80	12,512.2	-4,841.9	11.9	431,164.95	797,074.24	32° 10' 54.281 N	103° 22' 23.281 W
17,183.0	87.20	175.60	12,516.5	-4,936.5	19.1	431,070.31	797,081.36	32° 10' 53.344 N	103° 22' 23.208 W
17,277.0	87.50	174.90	12,520.9	-5,030.1	26.8	430,976.74	797,089.13	32° 10' 52.417 N	103° 22' 23.127 W
17,371.0	88.30	179.60	12,524.3	-5,123.9	31.3	430,882.93	797,093.64	32° 10' 51.488 N	103° 22' 23.085 W
17,465.0	88.60	180.30	12,526.9	-5,217.8	31.4	430,788.97	797,093.72	32° 10' 50.559 N	103° 22' 23.094 W
17,555.0	85.10	179.60	12,531.8	-5,307.7	31.5	430,699.12	797,093.80	32° 10' 49.669 N	103° 22' 23.102 W
17,649.0	84.50	179.30	12,540.3	-5,401.3	32.4	430,605.51	797,094.70	32° 10' 48.743 N	103° 22' 23.101 W
17,743.0	84.20	178.90	12,549.6	-5,494.8	33.9	430,511.98	797,096.17	32° 10' 47.817 N	103° 22' 23.094 W
17,837.0	84.20	178.20	12,559.1	-5,588.3	36.2	430,418.49	797,098.53	32° 10' 46.892 N	103° 22' 23.076 W
17,931.0	83.80	179.60	12,568.9	-5,681.8	38.0	430,325.03	797,100.33	32° 10' 45.967 N	103° 22' 23.065 W
18,025.0	85.00	179.80	12,578.1	-5,775.3	38.5	430,231.48	797,100.82	32° 10' 45.041 N	103° 22' 23.069 W
18,120.0	82.70	178.80	12,588.3	-5,869.8	39.7	430,137.04	797,101.97	32° 10' 44.107 N	103° 22' 23.065 W
18,214.0	84.20	180.00	12,599.0	-5,963.1	40.6	430,043.66	797,102.95	32° 10' 43.183 N	103° 22' 23.064 W
18,308.0	85.00	180.00	12,609.9	-6,056.6	40.6	429,949.28	797,102.95	32° 10' 42.259 N	103° 22' 23.076 W
18,402.0	87.30	180.30	12,616.2	-6,149.4	40.4	429,854.40	797,102.70	32° 10' 41.335 N	103° 22' 23.088 W
18,496.0	88.80	181.20	12,619.4	-6,242.3	39.2	429,759.46	797,101.46	32° 10' 40.411 N	103° 22' 23.113 W
18,590.0	90.60	182.10	12,619.9	-6,335.3	36.5	429,664.51	797,098.75	32° 10' 39.487 N	103° 22' 23.154 W
18,684.0	91.30	181.40	12,618.4	-6,428.2	33.6	429,569.57	797,095.88	32° 10' 38.563 N	103° 22' 23.197 W
18,778.0	88.60	180.20	12,618.5	-6,521.1	32.3	429,474.62	797,094.57	32° 10' 37.639 N	103° 22' 23.222 W
18,872.0	87.80	180.20	12,621.4	-6,614.0	31.9	429,379.67	797,094.24	32° 10' 36.715 N	103° 22' 23.236 W

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Coonskin Fee #25H
Project:	Lea County, NM	TVD Reference:	KB @ 3348.0usft (Norram 21)
Site:	Sec 28, T24S, R35E	MD Reference:	KB @ 3348.0usft (Norram 21)
Well:	Coonskin Fee #25H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
18,990.0	88.80	180.30	12,624.2	-6,738.1	31.5	429,268.68	797,093.83	32° 10' 35.515 N	103° 22' 23.250 W
19,084.0	91.40	180.90	12,624.1	-6,832.1	30.5	429,174.69	797,092.84	32° 10' 34.585 N	103° 22' 23.271 W
19,178.0	90.00	180.20	12,622.9	-6,926.1	29.6	429,080.71	797,091.94	32° 10' 33.655 N	103° 22' 23.292 W
19,272.0	91.90	180.00	12,621.4	-7,020.1	29.5	428,986.72	797,091.78	32° 10' 32.725 N	103° 22' 23.303 W
19,366.0	91.60	178.80	12,618.5	-7,114.0	30.5	428,892.77	797,092.76	32° 10' 31.796 N	103° 22' 23.302 W
19,461.0	90.40	177.20	12,616.8	-7,208.9	33.8	428,797.85	797,096.07	32° 10' 30.856 N	103° 22' 23.273 W
19,555.0	90.80	176.80	12,615.8	-7,302.8	38.7	428,703.99	797,100.99	32° 10' 29.927 N	103° 22' 23.226 W
19,649.0	92.70	176.30	12,613.0	-7,396.6	44.3	428,610.20	797,106.65	32° 10' 28.998 N	103° 22' 23.169 W
19,716.0	92.90	175.90	12,609.7	-7,463.4	48.9	428,543.44	797,111.20	32° 10' 28.337 N	103° 22' 23.123 W
19,763.0	92.90	175.90	12,607.3	-7,510.2	52.3	428,496.62	797,114.55	32° 10' 27.874 N	103° 22' 23.089 W
TD @ 19763.0' MD / 12607.3' TVD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,813.0	11,811.1	44.6	16.3	Tie into PH @ 11813.0' MD / 11811.1' TVD
19,763.0	12,607.3	-7,510.2	52.3	TD @ 19763.0' MD / 12607.3' TVD