



NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 29 2016

RECEIVED

June 30, 2016

30-015-42827

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

Attn: Kanicia Castillo

RE: **Screech Owl Federal No. 003H**

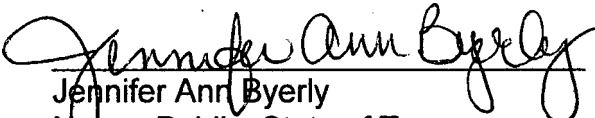
Please find enclosed a copy of the survey from 0' to 6900' ran on the above referenced well.

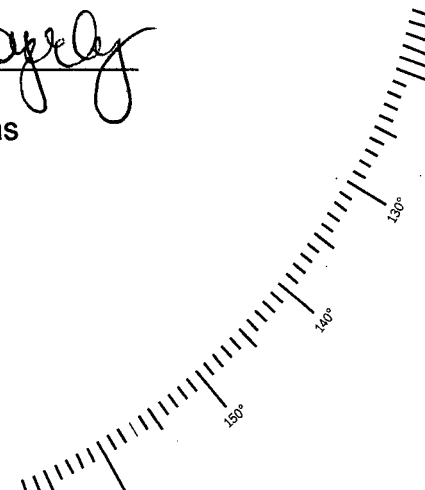
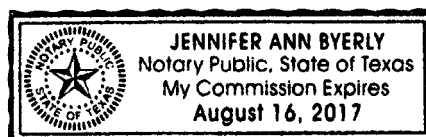
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 30th day of June,
A.D., 2016, by Keith Havelka.

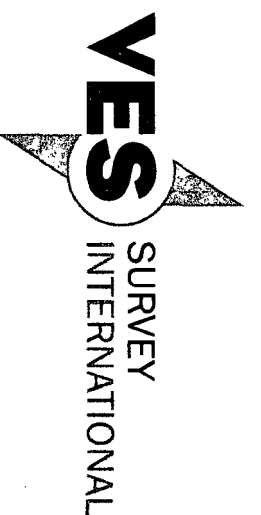

Jennifer Ann Byerly
Notary Public, State of Texas





Company: COG Operating, LLC
Lease/Well: Screech Owl Federal No./003H

Rig Name: Latshaw 44
State/County: New Mexico/Eddy
VS-Azi: 0.00 Degrees
Latitude: 32.03573, Longitude: -104.22809
Grid North = True North -0.06 degs (NAD 27)
Grid Correction Applied = -0.06 degs



Depth Reference : RKB = 25 Foot

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: screech owl federal 3h.ut
Minimum Curvature Method
Report Date/Time: 6/30/2016 / 13:41

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 29 2016

VES Survey International
Midland Tx
(432) 563-5444

RECEIVED

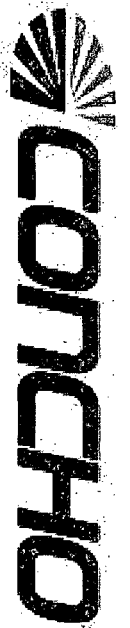
Surveyor: Gene Heiss

Screech Owl Federal No. 003H / API 30-015-42827

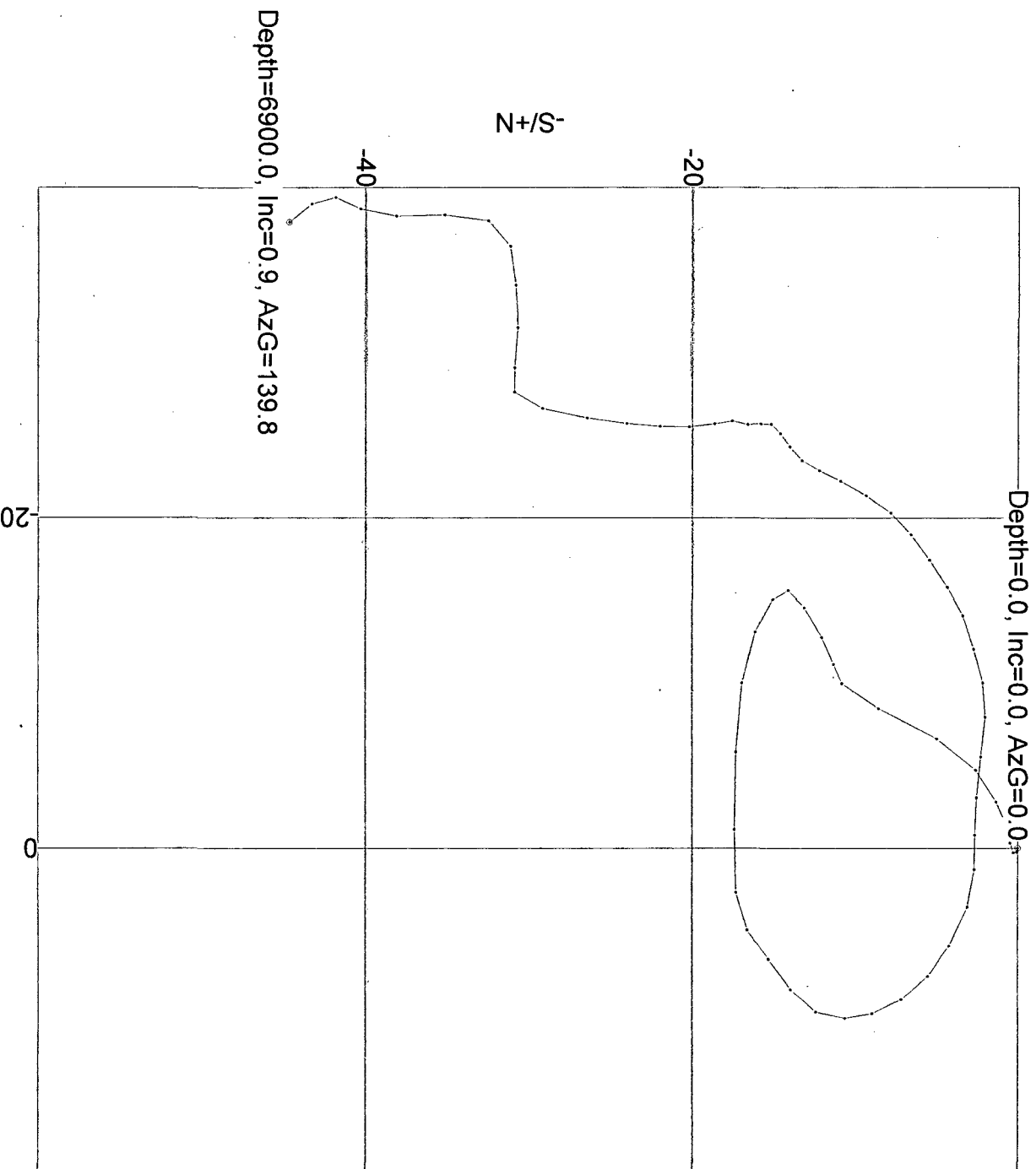
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.27	103.27	100.00	-0.05	0.23	-0.05	0.24	103.27	0.27
200.00	0.29	228.35	200.00	-0.28	0.28	-0.28	0.39	134.97	0.50
300.00	0.47	264.62	300.00	-0.48	-0.32	-0.48	0.58	213.44	0.29
400.00	0.75	254.68	399.99	-0.69	-1.36	-0.69	1.52	242.90	0.29
500.00	1.08	240.72	499.98	-1.33	-2.81	-1.33	3.10	244.69	0.40
600.00	1.58	234.10	599.95	-2.59	-4.74	-2.59	5.40	241.32	0.52
700.00	2.02	206.49	699.90	-4.98	-6.64	-4.98	8.30	233.14	0.96
800.00	2.58	207.62	799.82	-8.56	-8.47	-8.56	12.04	224.72	0.56
900.00	0.61	240.70	899.78	-10.81	-9.98	-10.81	14.72	222.71	2.10
1000.00	0.86	249.50	999.77	-11.34	-11.15	-11.34	15.90	224.53	0.28
1100.00	1.18	243.88	1099.76	-12.05	-12.78	-12.05	17.57	226.68	0.34
1200.00	1.23	234.66	1199.73	-13.13	-14.58	-13.13	19.62	228.00	0.20
1300.00	0.49	204.91	1299.72	-14.14	-15.63	-14.14	21.08	227.88	0.84
1400.00	1.05	126.25	1399.71	-15.07	-15.07	-15.07	21.31	225.01	1.07
1500.00	1.53	113.20	1499.69	-16.14	-13.10	-16.14	20.79	219.06	0.56
1600.00	2.15	98.95	1599.64	-16.96	-10.01	-16.96	19.70	210.55	0.77

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	2.67	91.96	1699.55	-17.33	-5.83	-17.33	18.29	198.60	0.59
1800.00	2.72	90.05	1799.44	-17.41	-1.13	-17.41	17.45	183.72	0.11
1900.00	1.66	86.51	1899.36	-17.33	2.69	-17.33	17.54	171.17	1.07
2000.00	1.17	53.40	1999.33	-16.63	4.96	-16.63	17.36	163.41	0.94
2100.00	1.40	55.18	2099.31	-16.33	6.78	-15.33	16.76	156.16	0.24
2200.00	1.25	52.58	2199.28	-13.97	8.64	-13.97	16.43	148.25	0.16
2300.00	1.15	29.20	2299.26	-12.43	10.00	-12.43	15.95	141.20	0.50
2400.00	1.07	354.34	2399.24	-10.63	10.39	-10.63	14.87	135.65	0.67
2500.00	0.88	343.51	2499.23	-8.96	10.08	-8.96	13.49	131.64	0.27
2600.00	1.38	329.80	2599.21	-7.19	9.26	-7.19	11.72	127.83	0.57
2700.00	1.15	307.24	2699.19	-5.54	7.85	-5.54	9.61	125.20	0.54
2800.00	1.53	301.91	2799.16	-4.23	5.92	-4.23	7.28	125.52	0.40
2900.00	1.48	288.72	2899.12	-3.11	3.57	-3.11	4.73	131.07	0.35
3000.00	1.21	270.87	2999.10	-2.68	1.29	-2.68	2.97	154.30	0.50
3100.00	1.19	271.28	3099.08	-2.64	-0.80	-2.64	2.76	196.92	0.02
3200.00	1.42	273.44	3199.05	-2.54	-3.07	-2.54	3.99	230.42	0.23
3300.00	1.43	278.69	3299.02	-2.28	-5.54	-2.28	5.99	247.64	0.13
3400.00	1.34	274.23	3398.99	-2.00	-7.93	-2.00	8.18	255.82	0.14
3500.00	1.11	255.27	3498.97	-2.16	-10.03	-2.16	10.26	257.83	0.46
3600.00	1.29	254.52	3598.95	-2.71	-12.05	-2.71	12.36	257.33	0.19
3700.00	1.16	248.95	3698.92	-3.38	-14.09	-3.38	14.49	256.52	0.18
3800.00	1.13	231.52	3798.90	-4.36	-15.81	-4.36	16.40	254.60	0.35
3900.00	1.15	240.55	3898.88	-5.46	-17.46	-5.46	18.29	252.62	0.18
4000.00	1.05	226.40	3998.86	-6.59	-18.99	-6.59	20.10	250.87	0.29
4100.00	1.03	226.23	4098.85	-7.84	-20.31	-7.84	21.77	248.88	0.02
4200.00	1.11	205.03	4198.83	-9.34	-21.37	-9.34	23.32	246.38	0.40
4300.00	0.98	214.49	4298.81	-10.92	-22.26	-10.92	24.80	243.86	0.22
4400.00	0.71	193.41	4398.80	-12.23	-22.89	-12.23	25.95	241.88	0.40
4500.00	0.75	225.50	4498.80	-13.29	-23.49	-13.29	26.99	240.51	0.40
4600.00	0.54	232.28	4598.79	-14.03	-24.33	-14.03	28.09	240.03	0.21
4700.00	0.58	234.99	4698.78	-14.62	-25.12	-14.62	29.07	239.81	0.04
4800.00	0.36	210.09	4798.78	-15.18	-25.70	-15.18	29.85	239.43	0.29
4900.00	0.43	158.21	4898.78	-15.80	-25.72	-15.80	30.18	238.43	0.35
5000.00	0.55	190.50	4998.78	-16.62	-25.67	-16.62	30.57	237.08	0.29
5100.00	0.57	194.43	5098.77	-17.56	-25.88	-17.56	31.27	235.83	0.04
5200.00	0.76	153.67	5198.77	-18.64	-25.70	-18.64	31.75	234.06	0.50
5300.00	1.11	187.01	5298.75	-20.19	-25.53	-20.19	32.55	231.66	0.63
5400.00	0.95	173.46	5398.74	-21.98	-25.55	-21.98	33.70	229.30	0.29
5500.00	1.42	192.74	5498.71	-24.02	-25.73	-24.02	35.20	226.97	0.61

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/S FT	+E/W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	1.40	182.42	5598.68	-26.45	-26.06	-26.45	37.12	224.57	0.25
5700.00	1.84	199.29	5698.65	-29.18	-26.64	-29.18	39.51	222.39	0.64
5800.00	0.59	247.68	5798.62	-30.89	-27.64	-30.89	41.45	221.83	1.51
5900.00	1.18	282.22	5898.61	-30.86	-29.12	-30.86	42.43	223.34	0.77
6000.00	1.61	268.78	5998.58	-30.68	-31.53	-30.68	43.99	225.78	0.54
6100.00	1.36	264.19	6098.55	-30.82	-34.10	-30.82	45.97	227.89	0.28
6200.00	1.38	259.66	6198.52	-31.16	-36.47	-31.16	47.97	229.49	0.11
6300.00	1.33	196.93	6298.50	-32.49	-37.99	-32.49	49.99	229.47	1.41
6400.00	1.79	180.66	6398.46	-35.17	-38.35	-35.17	52.03	227.48	0.64
6500.00	1.58	176.58	6498.42	-38.11	-38.29	-38.11	54.02	225.14	0.25
6600.00	1.11	211.91	6598.39	-40.31	-38.72	-40.31	55.89	223.85	0.93
6700.00	0.84	194.47	6698.38	-41.84	-39.41	-41.84	57.48	223.29	0.40
6800.00	1.08	142.32	6798.36	-43.29	-39.02	-43.29	58.28	222.03	0.87
6900.00	0.93	139.77	6898.35	-44.66	-37.92	-44.66	58.58	220.33	0.16



VES Survey International
Midland Tx
(432) 563-5444
Surveyor: Gene Heiss
Schreech Owl Federal No. 003H / API 30-015-42827





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I Gene Heiss certify that I am employed by VES Survey International. That I did on the day(s) of 06/22/16 through 06/22/16 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 6,900.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Concho for the Screech Owl Federal Well # 3H API # 30-015-42827 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in black ink, appearing to read "Gene Heiss", written over a horizontal line.

Gene Heiss
Service Technician
VES Survey International



NM OIL CONSERVATION

ARTESIA DISTRICT

AUG 29 2016

RECEIVED

COG Operating LLC

Eddy County, NM (NAD-27 2015)

Screech Owl Federal Com #3H

Screech Owl Federal Com #3H

Lateral #1

Design: Lateral #1

Survey Report - Geographic

04 July, 2016





TDS
Survey Report - Geographic



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well: Screech Owl Federal Com #3H
Project:	Eddy County, NM (NAD-27 2015)	TVD Reference:	KB @ 3322.30usft (Latshaw 44)
Site:	Screech Owl Federal Com #3H	MD Reference:	KB @ 3322.30usft (Latshaw 44)
Well:	Screech Owl Federal Com #3H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Project:	Eddy County, NM (NAD-27 2015)		
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:	Screech Owl Federal Com #3H		
Site Position:		Northing:	376,739.50 usft
From:	Map	Easting:	532,611.60 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	32° 2' 8.620 N
		Longitude:	104° 13' 41.131 W
		Grid Convergence:	0.06 °

Well:	Screech Owl Federal Com #3H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 2' 8.620 N
		Longitude:	104° 13' 41.131 W
		Ground Level:	3,297.30 usft

Wellbore:	Lateral #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	6/1/2016	(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
			7.35
			59.79
			47,862

Design:	Lateral #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			176.13

Survey Program	Date: 7/4/2016		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
100.00	6,900.00	VES Gyro #1 (Lateral #1)	MWD
6,946.00	17,855.00	TDS MWD #2 (Lateral #1)	MWD
			MWD - Standard
			MWD - Standard

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map			
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting	Latitude	Longitude	
(usft)			(usft)			(usft)	(usft)			
0.00	0.00	0.00	0.00	0.00	0.00	376,739.50	532,611.60	32° 2' 8.620 N	104° 13' 41.131 W	
100.00	0.27	103.27	100.00	-0.05	0.23	376,739.44	532,611.83	32° 2' 8.619 N	104° 13' 41.129 W	
200.00	0.29	228.35	200.00	-0.28	0.27	376,739.22	532,611.87	32° 2' 8.617 N	104° 13' 41.128 W	
300.00	0.47	264.62	300.00	-0.48	-0.33	376,739.02	532,611.27	32° 2' 8.615 N	104° 13' 41.135 W	
400.00	0.75	254.68	399.99	-0.69	-1.37	376,738.80	532,610.23	32° 2' 8.613 N	104° 13' 41.147 W	
500.00	1.08	240.72	499.98	-1.33	-2.82	376,738.17	532,608.78	32° 2' 8.607 N	104° 13' 41.164 W	
600.00	1.58	234.10	599.95	-2.60	-4.76	376,736.90	532,606.84	32° 2' 8.594 N	104° 13' 41.187 W	
700.00	2.02	206.49	699.90	-4.98	-6.66	376,734.52	532,604.94	32° 2' 8.571 N	104° 13' 41.209 W	
800.00	2.58	207.62	799.82	-8.56	-8.49	376,730.94	532,603.11	32° 2' 8.535 N	104° 13' 41.230 W	
900.00	0.61	240.70	899.78	-10.81	-10.00	376,728.69	532,601.60	32° 2' 8.513 N	104° 13' 41.248 W	
1,000.00	0.86	249.50	999.77	-11.33	-11.17	376,728.17	532,600.43	32° 2' 8.508 N	104° 13' 41.261 W	



TDS
Survey Report - Geographic



Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Screech Owl Federal Com #3H
Project:	Eddy County, NM (NAD-27 2015)	TVD Reference:	KB @ 3322.30usft (Latshaw 44)
Site:	Screech Owl Federal Com #3H	MD Reference:	KB @ 3322.30usft (Latshaw 44)
Well:	Screech Owl Federal Com #3H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #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	
1,100.00	1.18	243.88	1,099.76	-12.05	-12.79	376,727.45	532,598.81	32° 2' 8.501 N	104° 13' 41.280 W	
1,200.00	1.23	234.66	1,199.73	-13.12	-14.59	376,726.37	532,597.01	32° 2' 8.490 N	104° 13' 41.301 W	
1,300.00	0.49	204.91	1,299.72	-14.13	-15.65	376,725.37	532,595.95	32° 2' 8.480 N	104° 13' 41.313 W	
1,400.00	1.05	126.25	1,399.72	-15.06	-15.09	376,724.44	532,596.51	32° 2' 8.471 N	104° 13' 41.307 W	
1,500.00	1.53	113.20	1,499.69	-16.13	-13.13	376,723.37	532,598.48	32° 2' 8.461 N	104° 13' 41.284 W	
1,600.00	2.15	98.95	1,599.64	-16.95	-10.05	376,722.55	532,601.56	32° 2' 8.452 N	104° 13' 41.248 W	
1,700.00	2.67	91.96	1,699.55	-17.32	-5.86	376,722.18	532,605.74	32° 2' 8.449 N	104° 13' 41.200 W	
1,800.00	2.72	90.05	1,799.44	-17.40	-1.16	376,722.10	532,610.44	32° 2' 8.448 N	104° 13' 41.145 W	
1,900.00	1.66	86.51	1,899.36	-17.31	2.65	376,722.18	532,614.26	32° 2' 8.449 N	104° 13' 41.101 W	
2,000.00	1.17	53.40	1,999.34	-16.62	4.92	376,722.88	532,616.52	32° 2' 8.456 N	104° 13' 41.074 W	
2,100.00	1.40	55.18	2,099.31	-15.31	6.74	376,724.19	532,618.34	32° 2' 8.468 N	104° 13' 41.053 W	
2,200.00	1.25	52.58	2,199.28	-13.95	8.61	376,725.55	532,620.21	32° 2' 8.482 N	104° 13' 41.031 W	
2,300.00	1.15	29.20	2,299.26	-12.41	9.97	376,727.09	532,621.57	32° 2' 8.497 N	104° 13' 41.016 W	
2,400.00	1.07	354.34	2,399.24	-10.61	10.37	376,728.89	532,621.97	32° 2' 8.515 N	104° 13' 41.011 W	
2,500.00	0.88	343.51	2,499.23	-8.94	10.06	376,730.56	532,621.66	32° 2' 8.531 N	104° 13' 41.015 W	
2,600.00	1.38	329.80	2,599.21	-7.16	9.23	376,732.33	532,620.83	32° 2' 8.549 N	104° 13' 41.024 W	
2,700.00	1.15	307.24	2,699.19	-5.52	7.83	376,733.98	532,619.43	32° 2' 8.565 N	104° 13' 41.040 W	
2,800.00	1.53	301.91	2,799.16	-4.20	5.89	376,735.29	532,617.50	32° 2' 8.578 N	104° 13' 41.063 W	
2,900.00	1.48	288.72	2,899.12	-3.08	3.54	376,736.42	532,615.14	32° 2' 8.589 N	104° 13' 41.090 W	
3,000.00	1.21	270.87	2,999.10	-2.65	1.26	376,736.85	532,612.86	32° 2' 8.594 N	104° 13' 41.117 W	
3,100.00	1.19	271.28	3,099.08	-2.61	-0.83	376,736.88	532,610.77	32° 2' 8.594 N	104° 13' 41.141 W	
3,200.00	1.42	273.44	3,199.05	-2.52	-3.11	376,736.98	532,608.49	32° 2' 8.595 N	104° 13' 41.167 W	
3,300.00	1.43	278.69	3,299.02	-2.25	-5.58	376,737.25	532,606.02	32° 2' 8.598 N	104° 13' 41.196 W	
3,400.00	1.34	274.23	3,398.99	-1.98	-7.98	376,737.52	532,603.62	32° 2' 8.601 N	104° 13' 41.224 W	
3,500.00	1.11	255.27	3,498.97	-2.14	-10.08	376,737.36	532,601.52	32° 2' 8.599 N	104° 13' 41.248 W	
3,600.00	1.29	254.52	3,598.95	-2.69	-12.10	376,736.81	532,599.50	32° 2' 8.594 N	104° 13' 41.272 W	
3,700.00	1.16	248.95	3,698.92	-3.35	-14.13	376,736.15	532,597.47	32° 2' 8.587 N	104° 13' 41.295 W	
3,800.00	1.13	231.52	3,798.90	-4.33	-15.85	376,735.17	532,595.75	32° 2' 8.577 N	104° 13' 41.315 W	
3,900.00	1.15	240.55	3,898.88	-5.43	-17.50	376,734.07	532,594.11	32° 2' 8.566 N	104° 13' 41.335 W	
4,000.00	1.05	226.40	3,998.86	-6.56	-19.03	376,732.94	532,592.57	32° 2' 8.555 N	104° 13' 41.352 W	
4,100.00	1.03	226.23	4,098.85	-7.81	-20.35	376,731.69	532,591.26	32° 2' 8.543 N	104° 13' 41.368 W	
4,200.00	1.11	205.03	4,198.83	-9.31	-21.40	376,730.19	532,590.20	32° 2' 8.528 N	104° 13' 41.380 W	
4,300.00	0.98	214.49	4,298.81	-10.89	-22.30	376,728.60	532,589.30	32° 2' 8.512 N	104° 13' 41.390 W	
4,400.00	0.71	193.41	4,398.80	-12.20	-22.93	376,727.30	532,588.68	32° 2' 8.499 N	104° 13' 41.398 W	
4,500.00	0.75	225.50	4,498.80	-13.26	-23.54	376,726.24	532,588.07	32° 2' 8.489 N	104° 13' 41.405 W	
4,600.00	0.54	232.28	4,598.79	-14.01	-24.38	376,725.49	532,587.23	32° 2' 8.482 N	104° 13' 41.415 W	
4,700.00	0.58	234.99	4,698.79	-14.59	-25.16	376,724.91	532,586.44	32° 2' 8.476 N	104° 13' 41.424 W	
4,800.00	0.36	210.09	4,798.78	-15.15	-25.74	376,724.35	532,585.87	32° 2' 8.470 N	104° 13' 41.430 W	
4,900.00	0.43	158.21	4,898.78	-15.77	-25.75	376,723.73	532,585.85	32° 2' 8.464 N	104° 13' 41.431 W	
5,000.00	0.55	190.50	4,998.78	-16.59	-25.70	376,722.91	532,585.90	32° 2' 8.456 N	104° 13' 41.430 W	
5,100.00	0.57	194.43	5,098.77	-17.55	-25.91	376,721.95	532,585.69	32° 2' 8.447 N	104° 13' 41.433 W	
5,200.00	0.76	153.67	5,198.77	-18.62	-25.74	376,720.88	532,585.86	32° 2' 8.436 N	104° 13' 41.431 W	
5,300.00	1.11	187.01	5,298.75	-20.18	-25.57	376,719.32	532,586.03	32° 2' 8.421 N	104° 13' 41.429 W	
5,400.00	0.95	173.46	5,398.74	-21.96	-25.59	376,717.54	532,586.01	32° 2' 8.403 N	104° 13' 41.429 W	
5,500.00	1.42	192.74	5,498.72	-23.99	-25.77	376,715.50	532,585.83	32° 2' 8.383 N	104° 13' 41.431 W	
5,600.00	1.40	182.42	5,598.68	-26.42	-26.09	376,713.08	532,585.51	32° 2' 8.359 N	104° 13' 41.435 W	
5,700.00	1.84	199.29	5,698.65	-29.16	-26.68	376,710.34	532,584.93	32° 2' 8.332 N	104° 13' 41.442 W	
5,800.00	0.59	247.68	5,798.62	-30.87	-27.68	376,708.63	532,583.92	32° 2' 8.315 N	104° 13' 41.453 W	
5,900.00	1.18	282.22	5,898.61	-30.85	-29.17	376,708.65	532,582.44	32° 2' 8.315 N	104° 13' 41.470 W	
6,000.00	1.61	268.78	5,998.58	-30.66	-31.58	376,708.84	532,580.03	32° 2' 8.317 N	104° 13' 41.498 W	
6,100.00	1.36	264.19	6,098.55	-30.81	-34.16	376,708.69	532,577.44	32° 2' 8.315 N	104° 13' 41.528 W	
6,200.00	1.38	259.66	6,198.52	-31.15	-36.53	376,708.35	532,575.07	32° 2' 8.312 N	104° 13' 41.556 W	
6,300.00	1.33	196.93	6,298.50	-32.47	-38.05	376,707.03	532,573.55	32° 2' 8.299 N	104° 13' 41.574 W	
6,400.00	1.79	180.66	6,398.46	-35.14	-38.41	376,704.35	532,573.20	32° 2' 8.273 N	104° 13' 41.578 W	
6,500.00	1.58	176.58	6,498.42	-38.08	-38.34	376,701.42	532,573.26	32° 2' 8.243 N	104° 13' 41.577 W	



TDS
Survey Report - Geographic



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Screech Owl Federal Com #3H
Project:	Eddy County, NM (NAD-27 2015)	TVD Reference:	KB @ 3322.30usft (Latshaw 44)
Site:	Screech Owl Federal Com #3H	MD Reference:	KB @ 3322.30usft (Latshaw 44)
Well:	Screech Owl Federal Com #3H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #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
6,600.00	1.11	211.91	6,598.39	-40.28	-38.77	376,699.22	532,572.83	32° 2' 8.222 N	104° 13' 41.582 W
6,700.00	0.84	194.47	6,698.38	-41.81	-39.47	376,697.69	532,572.14	32° 2' 8.207 N	104° 13' 41.590 W
6,800.00	1.08	142.32	6,798.36	-43.27	-39.07	376,696.23	532,572.53	32° 2' 8.192 N	104° 13' 41.586 W
6,900.00	0.93	139.77	6,898.35	-44.63	-37.97	376,694.86	532,573.63	32° 2' 8.179 N	104° 13' 41.573 W
Tie-In to VES Gyro Survey									
6,946.00	0.50	167.00	6,944.34	-45.11	-37.69	376,694.38	532,573.91	32° 2' 8.174 N	104° 13' 41.570 W
First TDS MWD Survey									
7,000.00	1.80	145.70	6,998.33	-46.04	-37.16	376,693.45	532,574.45	32° 2' 8.165 N	104° 13' 41.563 W
7,032.00	4.90	149.80	7,030.27	-47.64	-36.19	376,691.86	532,575.42	32° 2' 8.149 N	104° 13' 41.552 W
7,064.00	8.70	154.90	7,062.04	-51.02	-34.47	376,688.48	532,577.13	32° 2' 8.115 N	104° 13' 41.532 W
7,095.00	12.40	157.10	7,092.51	-56.21	-32.18	376,683.29	532,579.42	32° 2' 8.064 N	104° 13' 41.506 W
7,127.00	16.00	157.90	7,123.53	-63.46	-29.18	376,676.04	532,582.42	32° 2' 7.992 N	104° 13' 41.471 W
7,159.00	19.90	157.20	7,153.97	-72.57	-25.41	376,666.93	532,586.19	32° 2' 7.902 N	104° 13' 41.427 W
7,190.00	23.30	158.20	7,182.79	-83.13	-21.09	376,656.37	532,590.51	32° 2' 7.798 N	104° 13' 41.377 W
7,221.00	26.60	159.40	7,210.89	-95.32	-16.37	376,644.18	532,595.23	32° 2' 7.677 N	104° 13' 41.323 W
7,253.00	30.40	160.60	7,239.01	-109.67	-11.16	376,629.83	532,600.44	32° 2' 7.535 N	104° 13' 41.262 W
7,284.00	34.00	160.30	7,265.23	-125.23	-5.63	376,614.26	532,605.97	32° 2' 7.381 N	104° 13' 41.198 W
7,316.00	37.40	160.00	7,291.22	-142.79	0.71	376,596.70	532,612.32	32° 2' 7.207 N	104° 13' 41.125 W
7,347.00	41.80	159.80	7,315.10	-161.35	7.50	376,578.15	532,619.11	32° 2' 7.023 N	104° 13' 41.046 W
7,379.00	45.70	159.00	7,338.21	-182.05	15.29	376,557.45	532,626.90	32° 2' 6.818 N	104° 13' 40.956 W
7,411.00	49.20	158.50	7,359.85	-204.02	23.84	376,535.48	532,635.44	32° 2' 6.601 N	104° 13' 40.857 W
7,442.00	53.80	159.10	7,379.14	-226.63	32.61	376,512.86	532,644.21	32° 2' 6.377 N	104° 13' 40.755 W
7,473.00	58.10	159.80	7,396.49	-250.68	41.62	376,488.82	532,653.22	32° 2' 6.139 N	104° 13' 40.651 W
7,505.00	62.10	160.50	7,412.44	-276.77	51.03	376,462.73	532,662.63	32° 2' 5.880 N	104° 13' 40.542 W
7,536.00	66.80	161.60	7,425.81	-303.21	60.11	376,436.28	532,671.71	32° 2' 5.619 N	104° 13' 40.436 W
7,568.00	70.90	162.90	7,437.35	-331.63	69.20	376,407.87	532,680.80	32° 2' 5.337 N	104° 13' 40.331 W
7,599.00	74.90	163.80	7,446.46	-360.01	77.68	376,379.48	532,689.28	32° 2' 5.056 N	104° 13' 40.233 W
7,631.00	79.20	165.30	7,453.63	-390.07	85.98	376,349.43	532,697.59	32° 2' 4.759 N	104° 13' 40.137 W
7,662.00	83.30	166.90	7,458.35	-419.80	93.34	376,319.70	532,704.94	32° 2' 4.464 N	104° 13' 40.052 W
7,693.00	86.90	168.00	7,461.00	-449.95	100.05	376,289.55	532,711.65	32° 2' 4.166 N	104° 13' 39.974 W
7,724.00	89.80	168.50	7,461.89	-480.28	106.36	376,259.22	532,717.96	32° 2' 3.866 N	104° 13' 39.901 W
7,788.00	92.60	169.20	7,460.55	-543.05	118.73	376,196.45	532,730.33	32° 2' 3.244 N	104° 13' 39.758 W
7,882.00	92.40	169.30	7,456.45	-635.31	136.25	376,104.18	532,747.85	32° 2' 2.331 N	104° 13' 39.556 W
7,977.00	93.60	168.90	7,451.48	-728.47	154.19	376,011.03	532,765.79	32° 2' 1.409 N	104° 13' 39.348 W
8,071.00	91.80	168.00	7,447.05	-820.46	172.99	375,919.04	532,784.59	32° 2' 0.499 N	104° 13' 39.131 W
8,165.00	89.30	172.20	7,446.15	-913.03	189.14	375,826.47	532,800.74	32° 1' 59.582 N	104° 13' 38.944 W
8,260.00	88.30	174.00	7,448.14	-1,007.31	200.55	375,732.18	532,812.15	32° 1' 58.649 N	104° 13' 38.813 W
8,354.00	90.40	176.30	7,449.20	-1,100.96	208.50	375,638.54	532,820.10	32° 1' 57.722 N	104° 13' 38.722 W
8,449.00	92.50	177.40	7,446.80	-1,195.78	213.72	375,543.72	532,825.32	32° 1' 56.784 N	104° 13' 38.662 W
8,543.00	92.40	179.50	7,442.78	-1,289.65	216.26	375,449.84	532,827.86	32° 1' 55.855 N	104° 13' 38.634 W
8,638.00	91.00	179.20	7,439.96	-1,384.60	217.33	375,354.90	532,828.94	32° 1' 54.915 N	104° 13' 38.622 W
8,732.00	90.40	177.50	7,438.81	-1,478.55	220.04	375,260.95	532,831.64	32° 1' 53.985 N	104° 13' 38.592 W
8,826.00	92.00	176.30	7,436.85	-1,572.39	225.12	375,167.11	532,836.72	32° 1' 53.056 N	104° 13' 38.534 W
8,921.00	90.30	174.60	7,434.94	-1,667.06	232.66	375,072.43	532,844.26	32° 1' 52.119 N	104° 13' 38.447 W
9,015.00	89.50	174.60	7,435.10	-1,760.65	241.50	374,978.85	532,853.10	32° 1' 51.193 N	104° 13' 38.346 W
9,110.00	90.30	174.70	7,435.27	-1,855.23	250.36	374,884.27	532,861.96	32° 1' 50.257 N	104° 13' 38.244 W
9,205.00	89.90	175.70	7,435.10	-1,949.90	258.31	374,789.60	532,869.91	32° 1' 49.320 N	104° 13' 38.153 W
9,299.00	90.20	176.80	7,435.02	-2,043.69	264.46	374,695.80	532,876.06	32° 1' 48.392 N	104° 13' 38.082 W
9,393.00	91.30	177.60	7,433.79	-2,137.57	269.05	374,601.93	532,880.65	32° 1' 47.463 N	104° 13' 38.030 W
9,488.00	91.60	177.80	7,431.39	-2,232.46	272.86	374,507.03	532,884.46	32° 1' 46.523 N	104° 13' 37.987 W
9,582.00	90.10	177.70	7,429.99	-2,326.38	276.55	374,413.12	532,888.15	32° 1' 45.594 N	104° 13' 37.945 W
9,677.00	90.40	177.40	7,429.58	-2,421.29	280.61	374,318.21	532,892.21	32° 1' 44.655 N	104° 13' 37.899 W
9,772.00	88.70	175.50	7,430.32	-2,516.10	286.49	374,223.40	532,898.09	32° 1' 43.716 N	104° 13' 37.832 W
9,866.00	89.50	174.80	7,431.80	-2,609.75	294.44	374,129.75	532,906.04	32° 1' 42.789 N	104° 13' 37.740 W
9,961.00	91.40	174.50	7,431.05	-2,704.33	303.30	374,035.17	532,914.90	32° 1' 41.853 N	104° 13' 37.639 W



TDS
Survey Report - Geographic



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Screech Owl Federal Com #3H
Project:	Eddy County, NM (NAD-27-2015)	TVD Reference:	KB @ 3322.30usft (Latshaw 44)
Site:	Screech Owl Federal Com #3H	MD Reference:	KB @ 3322.30usft (Latshaw 44)
Well:	Screech Owl Federal Com #3H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM:5000:1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N-S (usft)	E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,055.00	90.60	175.70	7,429.41	-2,797.97	311.32	373,941.53	532,922.93	32° 1' 40.926 N	104° 13' 37.546 W
10,150.00	89.50	176.70	7,429.33	-2,892.76	317.62	373,846.74	532,929.22	32° 1' 39.988 N	104° 13' 37.474 W
10,244.00	90.40	176.50	7,429.41	-2,986.59	323.19	373,752.91	532,934.80	32° 1' 39.060 N	104° 13' 37.411 W
10,339.00	89.70	177.30	7,429.33	-3,081.45	328.33	373,658.05	532,939.93	32° 1' 38.121 N	104° 13' 37.352 W
10,434.00	91.20	176.90	7,428.58	-3,176.32	333.14	373,563.18	532,944.74	32° 1' 37.182 N	104° 13' 37.297 W
10,528.00	90.80	177.60	7,426.94	-3,270.20	337.65	373,469.30	532,949.25	32° 1' 36.253 N	104° 13' 37.246 W
10,623.00	91.60	177.30	7,424.95	-3,365.08	341.87	373,374.42	532,953.47	32° 1' 35.314 N	104° 13' 37.198 W
10,717.00	90.90	178.20	7,422.90	-3,458.99	345.56	373,280.51	532,957.16	32° 1' 34.384 N	104° 13' 37.156 W
10,812.00	92.10	178.10	7,420.42	-3,553.90	348.63	373,185.60	532,960.23	32° 1' 33.445 N	104° 13' 37.122 W
10,907.00	91.40	178.20	7,417.51	-3,648.81	351.69	373,090.69	532,963.30	32° 1' 32.506 N	104° 13' 37.087 W
11,028.00	90.80	176.80	7,415.19	-3,769.67	356.97	372,969.83	532,968.57	32° 1' 31.309 N	104° 13' 37.027 W
11,122.00	89.40	176.40	7,415.03	-3,863.50	362.55	372,876.00	532,974.15	32° 1' 30.381 N	104° 13' 36.964 W
11,217.00	89.80	175.60	7,415.69	-3,958.26	369.17	372,781.23	532,980.77	32° 1' 29.443 N	104° 13' 36.888 W
11,311.00	88.90	175.80	7,416.76	-4,051.99	376.22	372,687.51	532,987.82	32° 1' 28.515 N	104° 13' 36.807 W
11,406.00	88.70	175.90	7,418.75	-4,146.72	383.09	372,592.78	532,994.69	32° 1' 27.578 N	104° 13' 36.728 W
11,501.00	89.50	176.10	7,420.24	-4,241.48	389.72	372,498.02	533,001.32	32° 1' 26.640 N	104° 13' 36.652 W
11,596.00	88.80	176.80	7,421.65	-4,336.28	395.60	372,403.21	533,007.20	32° 1' 25.701 N	104° 13' 36.585 W
11,690.00	90.70	176.60	7,422.06	-4,430.12	401.01	372,309.37	533,012.61	32° 1' 24.773 N	104° 13' 36.523 W
11,784.00	89.50	177.10	7,421.89	-4,523.98	406.18	372,215.52	533,017.78	32° 1' 23.844 N	104° 13' 36.464 W
11,878.00	90.30	178.00	7,422.06	-4,617.89	410.19	372,121.61	533,021.80	32° 1' 22.914 N	104° 13' 36.419 W
11,973.00	89.40	177.00	7,422.31	-4,712.80	414.34	372,026.70	533,025.94	32° 1' 21.975 N	104° 13' 36.372 W
12,067.00	90.20	176.00	7,422.64	-4,806.62	420.08	371,932.88	533,031.68	32° 1' 21.046 N	104° 13' 36.306 W
12,162.00	89.50	176.60	7,422.88	-4,901.42	426.21	371,838.08	533,037.81	32° 1' 20.108 N	104° 13' 36.236 W
12,256.00	89.80	177.60	7,423.46	-4,995.30	430.96	371,744.20	533,042.56	32° 1' 19.179 N	104° 13' 36.182 W
12,350.00	89.90	178.50	7,423.70	-5,089.24	434.16	371,650.26	533,045.76	32° 1' 18.249 N	104° 13' 36.146 W
12,444.00	91.40	177.70	7,422.64	-5,183.18	437.28	371,556.32	533,048.88	32° 1' 17.320 N	104° 13' 36.111 W
12,538.00	90.70	178.00	7,420.92	-5,277.10	440.80	371,462.40	533,052.41	32° 1' 16.390 N	104° 13' 36.071 W
12,633.00	91.70	177.60	7,418.93	-5,372.01	444.45	371,367.49	533,056.05	32° 1' 15.451 N	104° 13' 36.029 W
12,729.00	91.70	177.30	7,416.08	-5,467.87	448.72	371,271.63	533,060.32	32° 1' 14.502 N	104° 13' 35.981 W
12,823.00	91.80	177.70	7,413.21	-5,561.74	452.82	371,177.76	533,064.42	32° 1' 13.573 N	104° 13' 35.934 W
12,917.00	91.50	177.80	7,410.50	-5,655.62	456.51	371,083.87	533,068.11	32° 1' 12.644 N	104° 13' 35.893 W
13,012.00	90.50	178.40	7,408.84	-5,750.56	459.65	370,988.94	533,071.26	32° 1' 11.704 N	104° 13' 35.857 W
13,106.00	89.40	178.80	7,408.92	-5,844.53	461.95	370,894.97	533,073.55	32° 1' 10.774 N	104° 13' 35.832 W
13,200.00	87.40	177.20	7,411.55	-5,938.42	465.23	370,801.07	533,076.83	32° 1' 9.845 N	104° 13' 35.795 W
13,295.00	88.50	176.90	7,414.95	-6,033.24	470.12	370,706.26	533,081.72	32° 1' 8.906 N	104° 13' 35.739 W
13,389.00	90.70	176.50	7,415.60	-6,127.07	475.53	370,612.43	533,087.13	32° 1' 7.978 N	104° 13' 35.677 W
13,483.00	89.90	177.50	7,415.11	-6,220.94	480.45	370,518.56	533,092.05	32° 1' 7.049 N	104° 13' 35.621 W
13,578.00	89.90	177.60	7,415.28	-6,315.85	484.51	370,423.65	533,096.11	32° 1' 6.109 N	104° 13' 35.575 W
13,673.00	92.10	178.20	7,413.62	-6,410.77	487.99	370,328.73	533,099.59	32° 1' 5.170 N	104° 13' 35.536 W
13,766.00	92.50	177.50	7,409.89	-6,503.63	491.47	370,235.87	533,103.08	32° 1' 4.251 N	104° 13' 35.496 W
13,860.00	90.20	175.90	7,407.67	-6,597.44	496.88	370,142.06	533,108.48	32° 1' 3.322 N	104° 13' 35.434 W
13,954.00	90.60	175.00	7,407.02	-6,691.14	504.34	370,048.36	533,115.94	32° 1' 2.395 N	104° 13' 35.349 W
14,058.00	90.30	177.00	7,406.20	-6,794.87	511.59	369,944.62	533,123.20	32° 1' 1.368 N	104° 13' 35.266 W
14,152.00	90.40	177.60	7,405.63	-6,888.77	516.02	369,850.73	533,127.62	32° 1' 0.439 N	104° 13' 35.216 W
14,246.00	90.70	178.20	7,404.72	-6,982.70	519.47	369,756.80	533,131.07	32° 0' 59.509 N	104° 13' 35.177 W
14,341.00	89.50	178.20	7,404.56	-7,077.65	522.45	369,661.85	533,134.05	32° 0' 58.570 N	104° 13' 35.143 W
14,436.00	89.80	177.80	7,405.14	-7,172.59	525.77	369,566.91	533,137.37	32° 0' 57.630 N	104° 13' 35.106 W
14,531.00	90.00	177.50	7,405.30	-7,267.51	529.66	369,471.99	533,141.26	32° 0' 56.691 N	104° 13' 35.061 W
14,624.00	90.30	177.10	7,405.06	-7,360.41	534.04	369,379.09	533,145.64	32° 0' 55.771 N	104° 13' 35.012 W
14,719.00	91.10	177.20	7,403.90	-7,455.28	538.76	369,284.22	533,150.37	32° 0' 54.832 N	104° 13' 34.958 W
14,814.00	90.20	176.30	7,402.82	-7,550.12	544.15	369,189.38	533,155.75	32° 0' 53.894 N	104° 13' 34.896 W
14,908.00	90.90	176.50	7,401.92	-7,643.93	550.05	369,095.57	533,161.65	32° 0' 52.965 N	104° 13' 34.829 W
15,004.00	92.60	176.30	7,398.99	-7,739.69	556.08	368,999.81	533,167.68	32° 0' 52.017 N	104° 13' 34.760 W
15,098.00	91.00	176.20	7,396.03	-7,833.44	562.22	368,906.06	533,173.82	32° 0' 51.089 N	104° 13' 34.690 W
15,192.00	89.20	176.50	7,395.87	-7,927.25	568.21	368,812.25	533,179.81	32° 0' 50.161 N	104° 13' 34.621 W



TDS
Survey Report - Geographic



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Screech Owl Federal Com #3H
Project:	Eddy County, NM (NAD-27-2015)	TVD Reference:	KB @ 3322.30usft (Latshaw 44)
Site:	Screech Owl Federal Com #3H	MD Reference:	KB @ 3322.30usft (Latshaw 44)
Well:	Screech Owl Federal Com #3H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #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	
15,287.00	90.70	176.60	7,395.95	-8,022.07	573.92	368,717.43	533,185.52	32° 0' 49.223 N	104° 13' 34.556 W	
15,382.00	89.60	176.60	7,395.71	-8,116.90	579.56	368,622.60	533,191.16	32° 0' 48.284 N	104° 13' 34.492 W	
15,477.00	89.50	176.10	7,396.45	-8,211.71	585.60	368,527.79	533,197.21	32° 0' 47.346 N	104° 13' 34.423 W	
15,572.00	90.90	175.80	7,396.12	-8,306.47	592.31	368,433.03	533,203.91	32° 0' 46.408 N	104° 13' 34.346 W	
15,666.00	90.40	176.80	7,395.05	-8,400.26	598.38	368,339.23	533,209.98	32° 0' 45.479 N	104° 13' 34.276 W	
15,760.00	89.30	177.50	7,395.30	-8,494.15	603.05	368,245.35	533,214.65	32° 0' 44.550 N	104° 13' 34.223 W	
15,855.00	89.10	176.40	7,396.63	-8,589.00	608.11	368,150.50	533,219.71	32° 0' 43.611 N	104° 13' 34.166 W	
15,949.00	89.80	175.30	7,397.53	-8,682.75	614.91	368,056.75	533,226.51	32° 0' 42.684 N	104° 13' 34.088 W	
16,044.00	90.00	175.10	7,397.69	-8,777.41	622.86	367,962.08	533,234.46	32° 0' 41.747 N	104° 13' 33.996 W	
16,139.00	91.10	174.90	7,396.78	-8,872.05	631.14	367,867.45	533,242.74	32° 0' 40.810 N	104° 13' 33.901 W	
16,233.00	90.50	176.10	7,395.47	-8,965.75	638.51	367,773.75	533,250.11	32° 0' 39.883 N	104° 13' 33.817 W	
16,328.00	90.70	176.90	7,394.47	-9,060.56	644.31	367,678.94	533,255.91	32° 0' 38.944 N	104° 13' 33.750 W	
16,423.00	90.60	176.70	7,393.40	-9,155.41	649.61	367,584.09	533,261.22	32° 0' 38.006 N	104° 13' 33.690 W	
16,518.00	91.50	175.90	7,391.66	-9,250.19	655.74	367,489.31	533,267.34	32° 0' 37.067 N	104° 13' 33.620 W	
16,613.00	89.50	176.10	7,390.83	-9,344.95	662.37	367,394.55	533,273.97	32° 0' 36.130 N	104° 13' 33.544 W	
16,707.00	89.80	176.00	7,391.40	-9,438.73	668.84	367,300.77	533,280.45	32° 0' 35.201 N	104° 13' 33.470 W	
16,802.00	90.20	175.00	7,391.40	-9,533.43	676.30	367,206.07	533,287.90	32° 0' 34.264 N	104° 13' 33.384 W	
16,897.00	88.40	175.30	7,392.56	-9,628.08	684.33	367,111.42	533,295.93	32° 0' 33.327 N	104° 13' 33.292 W	
16,991.00	87.60	177.50	7,395.84	-9,721.83	690.23	367,017.67	533,301.83	32° 0' 32.399 N	104° 13' 33.225 W	
17,086.00	87.80	177.40	7,399.66	-9,816.66	694.45	366,922.84	533,306.05	32° 0' 31.461 N	104° 13' 33.177 W	
17,181.00	87.90	176.60	7,403.22	-9,911.46	699.42	366,828.03	533,311.02	32° 0' 30.523 N	104° 13' 33.120 W	
17,276.00	89.60	177.60	7,405.29	-10,006.32	704.22	366,733.18	533,315.83	32° 0' 29.584 N	104° 13' 33.066 W	
17,370.00	90.70	178.20	7,405.05	-10,100.25	707.67	366,639.25	533,319.27	32° 0' 28.654 N	104° 13' 33.027 W	
17,465.00	91.40	178.10	7,403.30	-10,195.18	710.73	366,544.31	533,322.34	32° 0' 27.715 N	104° 13' 32.992 W	
17,560.00	92.60	178.00	7,399.99	-10,290.07	713.96	366,449.43	533,325.57	32° 0' 26.775 N	104° 13' 32.956 W	
17,655.00	93.80	177.10	7,394.69	-10,384.83	718.02	366,354.67	533,329.62	32° 0' 25.838 N	104° 13' 32.910 W	
17,750.00	95.50	177.10	7,386.99	-10,479.39	722.81	366,260.10	533,334.41	32° 0' 24.902 N	104° 13' 32.855 W	
17,801.00	96.40	177.00	7,381.70	-10,530.05	725.42	366,209.45	533,337.02	32° 0' 24.400 N	104° 13' 32.825 W	
Final TDS MWD Survey										
17,855.00	96.40	177.00	7,375.68	-10,583.64	728.23	366,155.86	533,339.83	32° 0' 23.870 N	104° 13' 32.793 W	
Projection to Bit/TD										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,900.00	6,898.35	-44.63	-37.97	Tie-In to VES Gyro Survey	
6,946.00	6,944.34	-45.11	-37.69	First TDS MWD Survey	
17,801.00	7,381.70	-10,530.05	725.42	Final TDS MWD Survey	
17,855.00	7,375.68	-10,583.64	728.23	Projection to Bit/TD	

Checked By: _____ Approved By: _____ Date: _____