

**PATRIOT DRILLING, LLC**

15. 41521

OPERATOR: COG Operating, LLC  
WELL/LEASE: MYOX 32 Fee # 2 H  
COUNTY: COG Operating, LLC  
Sec. 32, T25S, R28E

**STATE OF NEW MEXICO  
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
358	1 1/4	3,379	1/2
528	1 1/4	3,660	1
885	1	6,870	1 1/4
979	1	4,185	1
1,168	3/4	4,531	1 1/4
1,263	1	4,847	2
1,454	1 1/4	5,129	1 1/4
1,643	2 1/2	5,917	2 1/4
1,738	2 1/2	6,134	3
1,928	1 3/4	6,460	2 1/4
2,119	3	6,554	1 1/4
2,214	2 3/4	6,649	1/2
2,258	2 1/4	6,838	1 1/4
2,583	1 3/4	7,027	1
2,965	1 1/2	7,342	2
3,660	1	7,406	3

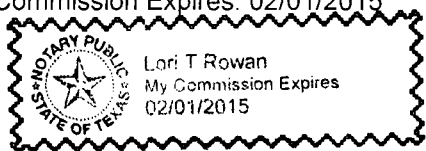
**RECEIVED**  
NOV 19 2013  
NMOCD ARTESIA

**Patriot Drilling, LLC**

M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 11th day of September, 2013 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling,

My Commission Expires: 02/01/2015



Lori T. Rowan  
Notary Public for Ector Co., Texas

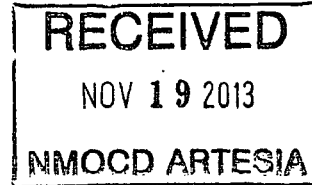


A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021  
Corpus Christi, Texas 78426  
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

September 4, 2013

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



Attn: Kanicia Castillo

RE: **Myox 32 Fee No. 002H**


Please find enclosed a copy of the survey from 0.00' to 7270.00' ran on the above referenced well.

Sincerely,

  
Keith Havelka  
Operations

STATE OF TEXAS       §  
                                  §  
COUNTY OF NUECES §

This instrument was acknowledged before me on the 4th day of September A.D., 2013, by Keith Havelka.

  
Meredith Darden  
Notary Public, State of Texas





Company: COG OPERATING LLC (CONCHO)  
 Lease/Well: Myox 32 Fee /No. 002H  
 Location: Sec 32 T25S R28E  
 Rig Name: Patriot #2  
 State/County: New Mexico/Eddy  
 Latitude: 32.09, Longitude: -104.11  
 GRID North is 0.12 Degrees East of True North  
 VS-Azi: 0.00 Degrees



RECEIVED  
 NOV 19 2013  
 NMOC D ARTESIA

Depth Reference : RKB 17 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: myox 32 fed #2h-de\_01.ut  
 Minimum Curvature Method  
 Report Date/Time: 9/4/2013 / 09:11

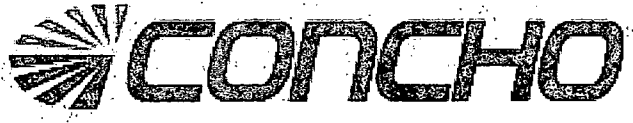
Vaughn Energy Services  
 West, Texas  
 432-563-5444

Surveyor: Chris Bankson  
 Myox 32 Fee No. 002H / API 30-015-41521

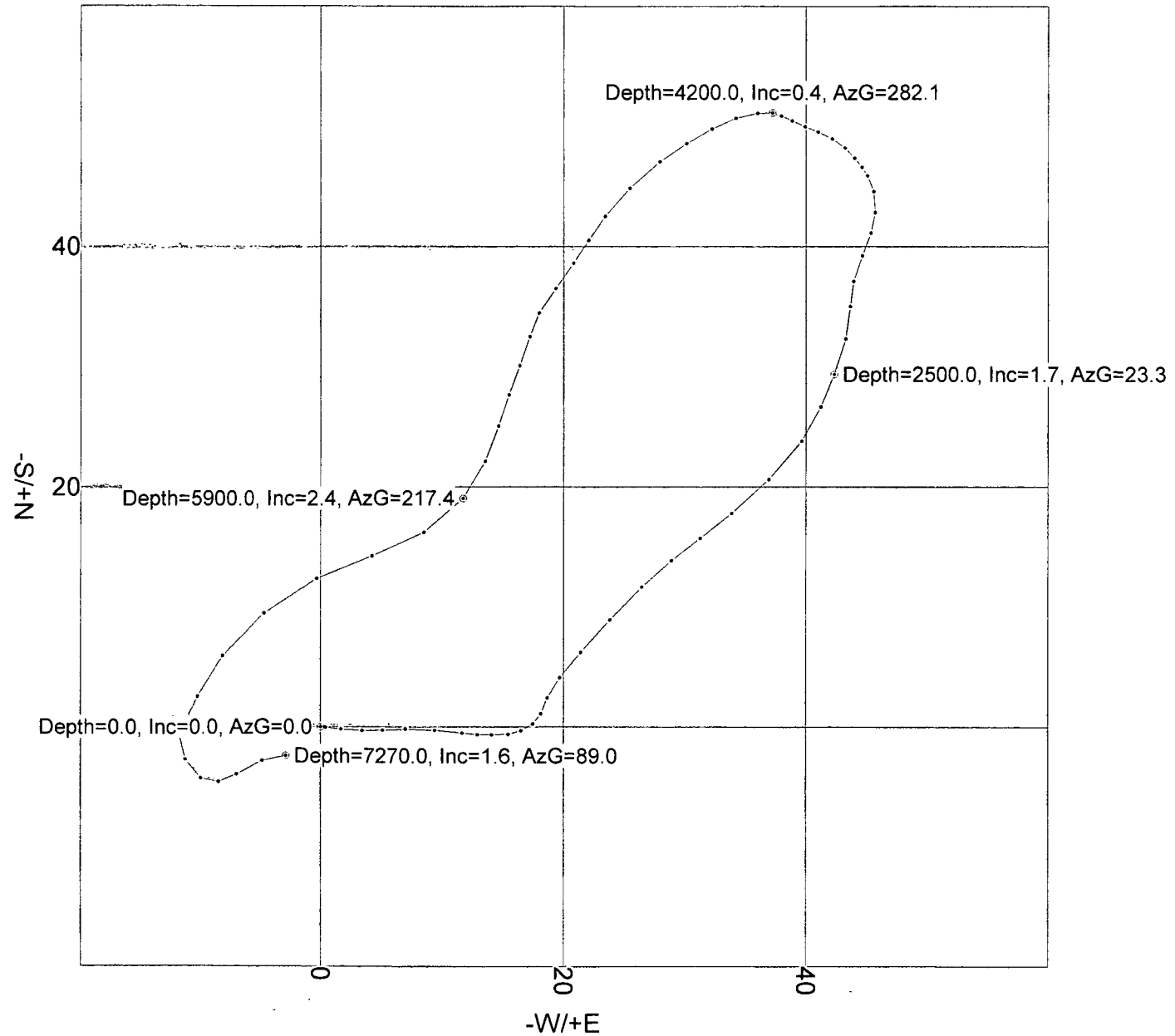
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.47	97.32	100.00	-0.05	0.40	-0.05	0.41	97.32	0.47
200.00	1.01	96.97	199.99	-0.21	1.68	-0.21	1.69	97.14	0.54
300.00	1.00	90.23	299.97	-0.32	3.43	-0.32	3.44	95.35	0.12
400.00	0.93	86.74	399.96	-0.28	5.10	-0.28	5.11	93.12	0.09
500.00	1.27	88.53	499.94	-0.20	7.03	-0.20	7.03	91.66	0.35
600.00	1.51	94.54	599.91	-0.28	9.45	-0.28	9.46	91.69	0.28
700.00	1.08	97.89	699.89	-0.51	11.70	-0.51	11.71	92.51	0.44
800.00	0.37	91.79	799.88	-0.65	12.96	-0.65	12.97	92.88	0.71
900.00	0.95	88.83	899.87	-0.65	14.11	-0.65	14.12	92.62	0.57
1000.00	0.59	89.54	999.86	-0.62	15.45	-0.62	15.46	92.32	0.35
1100.00	0.71	60.83	1099.86	-0.32	16.51	-0.32	16.51	91.10	0.34
1200.00	0.57	57.01	1199.85	0.26	17.47	0.26	17.48	89.15	0.15
1300.00	0.71	23.29	1299.84	1.10	18.14	1.10	18.17	86.53	0.39
1400.00	0.92	20.33	1399.83	2.42	18.66	2.42	18.82	82.61	0.22
1500.00	1.37	38.38	1499.81	4.11	19.68	4.11	20.11	78.21	0.57
1600.00	1.81	40.78	1599.77	6.24	21.45	6.24	22.34	73.78	0.45
1700.00	2.31	42.18	1699.71	8.94	23.84	8.94	25.46	69.46	0.50
1800.00	2.01	45.61	1799.64	11.66	26.45	11.66	28.91	66.22	0.33

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
1900.00	1.76	50.76	1899.58	13.85	28.89	13.85	32.04	64.38	0.31
2000.00	1.73	53.89	1999.54	15.71	31.30	15.71	35.02	63.34	0.10
2100.00	2.10	49.56	2099.48	17.79	33.91	17.79	38.29	62.32	0.40
2200.00	2.68	45.26	2199.39	20.62	36.96	20.62	42.33	60.84	0.60
2300.00	2.14	33.58	2299.31	23.82	39.66	23.82	46.26	59.00	0.73
2400.00	1.61	21.98	2399.25	26.69	41.22	26.69	49.10	57.08	0.65
2500.00	1.73	23.35	2499.21	29.37	42.34	29.37	51.53	55.25	0.12
2600.00	1.84	12.81	2599.16	32.32	43.29	32.32	54.03	53.26	0.35
2700.00	1.31	0.81	2699.12	35.03	43.67	35.03	55.98	51.27	0.62
2800.00	1.13	14.76	2799.10	37.12	43.93	37.12	57.51	49.81	0.34
2900.00	1.44	22.00	2899.08	39.23	44.65	39.23	59.44	48.70	0.35
3000.00	0.89	18.40	2999.06	41.14	45.37	41.14	61.24	47.80	0.55
3100.00	1.09	5.52	3099.04	42.83	45.71	42.83	62.64	46.86	0.30
3200.00	0.95	344.75	3199.03	44.58	45.58	44.58	63.76	45.64	0.39
3300.00	0.65	329.59	3299.02	45.88	45.08	45.88	64.32	44.49	0.36
3400.00	0.33	324.71	3399.01	46.60	44.62	46.60	64.52	43.75	0.33
3500.00	0.77	319.31	3499.01	47.35	44.02	47.35	64.65	42.91	0.45
3600.00	0.56	314.64	3599.00	48.20	43.23	48.20	64.75	41.89	0.22
3700.00	0.95	299.37	3698.99	48.95	42.17	48.95	64.60	40.74	0.44
3800.00	0.57	289.91	3798.98	49.52	40.98	49.52	64.28	39.61	0.40
3900.00	0.74	295.36	3898.98	49.97	39.93	49.97	63.96	38.63	0.18
4000.00	0.60	293.96	3998.97	50.46	38.86	50.46	63.69	37.60	0.14
4100.00	0.52	294.05	4098.96	50.86	37.96	50.86	63.47	36.74	0.08
4200.00	0.36	282.12	4198.96	51.11	37.24	51.11	63.24	36.08	0.18
4300.00	1.01	264.03	4298.95	51.09	36.05	51.09	62.52	35.21	0.67
4400.00	1.14	250.40	4398.94	50.66	34.23	50.66	61.14	34.05	0.29
4500.00	1.33	241.90	4498.91	49.78	32.27	49.78	59.32	32.95	0.26
4600.00	1.48	238.62	4598.88	48.56	30.14	48.56	57.16	31.83	0.17
4700.00	1.62	232.33	4698.85	47.03	27.92	47.03	54.69	30.70	0.22
4800.00	2.15	225.36	4798.79	44.84	25.47	44.84	51.57	29.60	0.58
4900.00	1.41	214.03	4898.74	42.50	23.44	42.50	48.54	28.88	0.82
5000.00	1.34	214.15	4998.71	40.51	22.10	40.51	46.15	28.61	0.08
5100.00	1.27	213.08	5098.69	38.62	20.84	38.62	43.88	28.35	0.07
5200.00	1.69	216.75	5198.65	36.51	19.35	36.51	41.32	27.93	0.43
5300.00	1.14	209.24	5298.62	34.46	17.99	34.46	38.87	27.56	0.58
5400.00	1.29	194.92	5398.60	32.51	17.21	32.51	36.79	27.90	0.34
5500.00	1.65	201.96	5498.57	30.09	16.38	30.09	34.26	28.57	0.40
5600.00	1.30	196.98	5598.54	27.66	15.51	27.66	31.71	29.28	0.37
5700.00	1.81	199.06	5698.50	25.08	14.67	25.08	29.06	30.31	0.51

Measured Depth FT	Inci 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
5800.00	1.80	200.99	5798.45	22.13	13.59	22.13	25.97	31.55	0.06
5900.00	2.36	217.42	5898.38	19.03	11.78	19.03	22.38	31.75	0.81
6000.00	2.66	239.10	5998.29	16.21	8.53	16.21	18.32	27.77	0.99
6100.00	2.79	251.69	6098.18	14.25	4.23	14.25	14.86	16.52	0.61
6200.00	2.87	243.62	6198.06	12.37	-0.33	12.37	12.38	358.49	0.40
6300.00	3.18	230.71	6297.92	9.50	-4.71	9.50	10.61	333.63	0.75
6400.00	2.54	216.59	6397.79	5.97	-8.18	5.97	10.13	306.10	0.94
6500.00	2.06	204.95	6497.71	2.56	-10.26	2.56	10.57	283.99	0.67
6600.00	0.71	209.52	6597.68	0.39	-11.32	0.39	11.33	271.97	1.35
6700.00	0.78	189.50	6697.67	-0.82	-11.74	-0.82	11.77	265.98	0.27
6800.00	1.54	155.43	6797.65	-2.72	-11.30	-2.72	11.62	256.47	0.99
6900.00	0.95	116.73	6897.63	-4.31	-10.00	-4.31	10.89	246.67	0.99
7000.00	0.86	83.61	6997.62	-4.60	-8.51	-4.60	9.67	241.60	0.52
7100.00	1.06	53.67	7097.61	-3.97	-7.02	-3.97	8.06	240.49	0.53
7200.00	1.73	67.57	7197.58	-2.85	-4.88	-2.85	5.65	239.73	0.74
7270.00	1.64	89.00	7267.55	-2.43	-2.90	-2.43	3.79	230.08	0.90



Vaughn Energy Services  
West, Texas  
432-563-5444  
Surveyor: Chris Bankson  
Myox 32 Fee No. 002H / API 30-015-41521



VES Survey Date: 08/28/2013



## **Concho COG Operating LLC**

**Eddy County, New Mexico**

**Myox 32 Fee**

**Myox 32 Fee Well 2H**

**Original Hole**

**Design: Surveys Original Hole**

### **Standard\_report**

**04 September, 2013**

The logo for N-ZONE, featuring the word "N-ZONE" in a bold, blocky, sans-serif font. The letter "Z" is stylized with a horizontal line through it, and the letter "O" contains a detailed mechanical or electrical symbol.



<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

<b>Project</b>	Eddy County, New Mexico		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Myox 32 Fee		
<b>Site Position:</b>		<b>Northing:</b>	397,483.55 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	568,869.28 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 5' 33.37080000 N
		<b>Longitude:</b>	104° 6' 39.40920000 W
		<b>Grid Convergence:</b>	0.12 °

<b>Well</b>	Myox 32 Fee Well 2H			
<b>Well Position</b>	<b>+N-S</b>	0.00 usft	<b>Northing:</b>	397,483.40 usft
	<b>+E-W</b>	0.00 usft	<b>Easting:</b>	568,869.30 usft
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft
			<b>Latitude:</b>	32° 5' 33.36932364 N
			<b>Longitude:</b>	104° 6' 39.40899457 W
			<b>Ground Level:</b>	2,975.10 usft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	IGRF2010	8/1/2013	7.56	59.92	48,268

<b>Design</b>	Surveys Original Hole				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N-S</b>	<b>+E-W</b>	<b>Direction</b>	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	180.56	

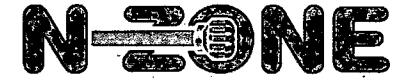




<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

Survey Program		Date					
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description			
100.00	7,270.00	Gyro (Original Hole)	NS-GYRO-MS	North-sensing gyrocompassing m/s			
7,342.00	12,446.00	MWD (Original Hole)	MWD	MWD - Standard			

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	397,483.40	568,869.30	
100.00	0.47	97.32	100.00	-0.05	0.41	0.47	0.05	397,483.35	568,869.71	
<b>Gyro</b>										
200.00	1.01	96.97	199.99	-0.21	1.69	0.54	0.19	397,483.19	568,870.99	
300.00	1.00	90.23	299.97	-0.32	3.44	0.12	0.29	397,483.08	568,872.74	
400.00	0.93	86.74	399.96	-0.28	5.12	0.09	0.23	397,483.12	568,874.42	
500.00	1.27	88.53	499.94	-0.20	7.04	0.34	0.14	397,483.20	568,876.34	
600.00	1.51	94.54	599.91	-0.28	9.46	0.28	0.19	397,483.12	568,878.76	
700.00	1.08	97.89	699.89	-0.51	11.71	0.44	0.40	397,482.89	568,881.01	
800.00	0.37	91.79	799.88	-0.65	12.96	0.71	0.53	397,482.75	568,882.26	
900.00	0.95	88.83	899.87	-0.65	14.11	0.58	0.51	397,482.75	568,883.41	
1,000.00	0.59	89.54	999.86	-0.63	15.46	0.36	0.47	397,482.77	568,884.76	
1,100.00	0.71	60.83	1,099.86	-0.32	16.51	0.34	0.16	397,483.08	568,885.81	
1,200.00	0.57	57.01	1,199.85	0.25	17.47	0.15	-0.42	397,483.65	568,886.77	
1,300.00	0.71	23.29	1,299.84	1.09	18.13	0.39	-1.27	397,484.49	568,887.43	
1,400.00	0.92	20.33	1,399.83	2.41	18.66	0.21	-2.60	397,485.81	568,887.96	
1,500.00	1.37	38.38	1,499.81	4.10	19.68	0.57	-4.30	397,487.50	568,888.98	
1,600.00	1.81	40.78	1,599.77	6.24	21.45	0.44	-6.45	397,489.64	568,890.75	
1,700.00	2.31	42.18	1,699.71	8.93	23.84	0.50	-9.16	397,492.33	568,893.14	
1,800.00	2.01	45.61	1,799.64	11.65	26.44	0.33	-11.91	397,495.05	568,895.74	
1,900.00	1.76	50.76	1,899.58	13.85	28.89	0.30	-14.13	397,497.25	568,898.19	



<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)		
2,000.00	1.73	53.89	1,999.54	15.71	31.29	0.10	-16.01	397,499.11	568,900.59		
2,100.00	2.10	49.56	2,099.48	17.78	33.91	0.40	-18.12	397,501.18	568,903.21		
2,200.00	2.68	45.26	2,199.39	20.62	36.96	0.61	-20.98	397,504.02	568,906.26		
2,300.00	2.14	33.58	2,299.31	23.82	39.66	0.73	-24.21	397,507.22	568,908.96		
2,400.00	1.61	21.98	2,399.25	26.68	41.21	0.65	-27.08	397,510.08	568,910.51		
2,500.00	1.73	23.35	2,499.21	29.37	42.34	0.13	-29.78	397,512.77	568,911.64		
2,600.00	1.84	12.81	2,599.16	32.32	43.29	0.35	-32.74	397,515.72	568,912.59		
2,700.00	1.31	0.81	2,699.12	35.03	43.67	0.62	-35.45	397,518.43	568,912.97		
2,800.00	1.13	14.76	2,799.10	37.12	43.93	0.35	-37.55	397,520.52	568,913.23		
2,900.00	1.44	22.00	2,899.08	39.24	44.65	0.35	-39.68	397,522.64	568,913.95		
3,000.00	0.89	18.40	2,999.06	41.14	45.37	0.55	-41.58	397,524.54	568,914.67		
3,100.00	1.09	5.52	3,099.04	42.83	45.71	0.30	-43.27	397,526.23	568,915.01		
3,200.00	0.95	344.75	3,199.03	44.57	45.58	0.39	-45.02	397,527.97	568,914.88		
3,300.00	0.65	329.59	3,299.02	45.86	45.08	0.36	-46.30	397,529.26	568,914.38		
3,400.00	0.33	324.71	3,399.01	46.59	44.62	0.32	-47.02	397,529.99	568,913.92		
3,500.00	0.77	319.31	3,499.01	47.33	44.02	0.44	-47.76	397,530.73	568,913.32		
3,600.00	0.56	314.64	3,599.00	48.18	43.23	0.22	-48.60	397,531.58	568,912.53		
3,700.00	0.95	299.37	3,698.99	48.93	42.16	0.44	-49.34	397,532.33	568,911.46		
3,800.00	0.57	289.91	3,798.98	49.51	40.97	0.40	-49.91	397,532.91	568,910.27		
3,900.00	0.74	295.36	3,898.98	49.96	39.92	0.18	-50.34	397,533.36	568,909.22		
4,000.00	0.60	293.96	3,998.97	50.45	38.86	0.14	-50.82	397,533.85	568,908.16		
4,100.00	0.52	294.05	4,098.96	50.84	37.97	0.08	-51.21	397,534.24	568,907.27		
4,200.00	0.36	282.12	4,198.96	51.09	37.24	0.18	-51.46	397,534.49	568,906.54		
4,300.00	1.01	264.03	4,298.95	51.07	36.06	0.68	-51.42	397,534.47	568,905.36		
4,400.00	1.14	250.40	4,398.94	50.64	34.25	0.29	-50.98	397,534.04	568,903.55		
4,500.00	1.33	241.90	4,498.91	49.76	32.29	0.26	-50.08	397,533.16	568,901.59		
4,600.00	1.48	238.62	4,598.88	48.54	30.16	0.17	-48.84	397,531.94	568,899.46		



<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)	
4,700.00	1.62	232.33	4,698.85	47.01	27.94	0.22	-47.28	397,530.41	568,897.24	
4,800.00	2.15	225.36	4,798.79	44.83	25.48	0.58	-45.07	397,528.23	568,894.78	
4,900.00	1.41	214.03	4,898.74	42.49	23.46	0.82	-42.71	397,525.89	568,892.76	
5,000.00	1.34	214.15	4,998.71	40.50	22.12	0.07	-40.71	397,523.90	568,891.42	
5,100.00	1.27	213.08	5,098.69	38.60	20.85	0.07	-38.81	397,522.00	568,890.15	
5,200.00	1.69	216.75	5,198.66	36.49	19.37	0.43	-36.68	397,519.89	568,888.67	
5,300.00	1.14	209.24	5,298.62	34.44	18.00	0.58	-34.62	397,517.84	568,887.30	
5,400.00	1.29	194.92	5,398.60	32.49	17.22	0.34	-32.66	397,515.89	568,886.52	
5,500.00	1.65	201.96	5,498.57	30.07	16.40	0.40	-30.22	397,513.47	568,885.70	
5,600.00	1.30	196.98	5,598.54	27.65	15.53	0.37	-27.80	397,511.05	568,884.83	
5,700.00	1.81	199.06	5,698.50	25.07	14.68	0.51	-25.21	397,508.47	568,883.98	
5,800.00	1.80	200.99	5,798.45	22.11	13.60	0.06	-22.24	397,505.51	568,882.90	
5,900.00	2.36	217.42	5,898.38	19.01	11.79	0.81	-19.12	397,502.41	568,881.09	
6,000.00	2.66	239.10	5,998.29	16.18	8.54	0.99	-16.26	397,499.58	568,877.84	
6,100.00	2.79	251.69	6,098.18	14.22	4.24	0.61	-14.27	397,497.62	568,873.54	
6,200.00	2.87	243.62	6,198.06	12.35	-0.31	0.41	-12.34	397,495.75	568,868.99	
6,300.00	3.18	230.71	6,297.92	9.48	-4.70	0.75	-9.43	397,492.88	568,864.60	
6,400.00	2.54	216.59	6,397.79	5.94	-8.17	0.95	-5.86	397,489.34	568,861.13	
6,500.00	2.06	204.95	6,497.71	2.53	-10.25	0.67	-2.43	397,485.93	568,859.05	
6,600.00	0.71	209.52	6,597.68	0.37	-11.31	1.35	-0.25	397,483.77	568,857.99	
6,700.00	0.78	189.50	6,697.67	-0.85	-11.73	0.27	0.96	397,482.55	568,857.57	
6,800.00	1.54	155.43	6,797.65	-2.74	-11.28	0.99	2.85	397,480.66	568,858.02	
6,900.00	0.95	116.73	6,897.63	-4.33	-9.98	1.00	4.43	397,479.07	568,859.32	
7,000.00	0.86	83.61	6,997.62	-4.62	-8.50	0.52	4.71	397,478.78	568,860.80	
7,100.00	1.06	53.67	7,097.61	-3.99	-7.00	0.53	4.06	397,479.41	568,862.30	
7,200.00	1.73	67.57	7,197.58	-2.87	-4.86	0.75	2.91	397,480.53	568,864.44	
7,270.00	1.64	89.00	7,267.55	-2.45	-2.89	0.90	2.47	397,480.95	568,866.41	



<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)		
7,342.00	1.80	128.90	7,339.52	-3.14	-0.98	1.64	3.15	397,480.26	568,868.32		
<b>MWD surveys</b>											
7,374.00	2.20	129.80	7,371.50	-3.85	-0.11	1.25	3.85	397,479.55	568,869.19		
7,406.00	2.90	160.10	7,403.47	-5.00	0.63	4.67	5.00	397,478.40	568,869.93		
7,437.00	4.40	182.10	7,434.40	-6.93	0.86	6.54	6.92	397,476.47	568,870.16		
7,469.00	6.60	190.10	7,466.26	-9.97	0.49	7.26	9.96	397,473.43	568,869.79		
7,501.00	9.20	192.20	7,497.95	-14.28	-0.37	8.17	14.28	397,469.12	568,868.93		
7,533.00	11.00	194.10	7,529.45	-19.74	-1.66	5.72	19.75	397,463.66	568,867.64		
7,564.00	12.10	197.80	7,559.82	-25.70	-3.37	4.28	25.73	397,457.70	568,865.93		
7,596.00	14.40	200.10	7,590.97	-32.63	-5.76	7.37	32.69	397,450.77	568,863.54		
7,628.00	16.10	206.70	7,621.84	-40.33	-9.13	7.59	40.42	397,443.07	568,860.17		
7,659.00	17.80	206.30	7,651.50	-48.42	-13.16	5.50	48.55	397,434.98	568,856.14		
7,691.00	20.90	202.70	7,681.69	-58.08	-17.53	10.38	58.24	397,425.32	568,851.77		
7,723.00	24.10	198.10	7,711.25	-69.56	-21.76	11.41	69.76	397,413.84	568,847.54		
7,754.00	27.80	194.20	7,739.12	-82.58	-25.50	13.14	82.83	397,400.82	568,843.80		
7,786.00	31.40	191.60	7,766.94	-97.99	-29.01	11.94	98.27	397,385.41	568,840.29		
7,818.00	35.50	190.40	7,793.64	-115.30	-32.37	12.98	115.61	397,368.10	568,836.93		
7,849.00	40.10	188.90	7,818.12	-134.03	-35.54	15.13	134.37	397,349.37	568,833.76		
7,881.00	44.40	187.60	7,841.81	-155.32	-38.61	13.71	155.69	397,328.08	568,830.69		
7,913.00	49.20	186.40	7,863.71	-178.47	-41.45	15.25	178.86	397,304.93	568,827.85		
7,945.00	54.40	185.70	7,883.49	-203.46	-44.09	16.34	203.89	397,279.94	568,825.21		
7,977.00	59.90	185.50	7,900.84	-230.21	-46.71	17.20	230.65	397,253.19	568,822.59		
8,008.00	65.10	184.60	7,915.15	-257.59	-49.13	16.97	258.06	397,225.81	568,820.17		
8,040.00	69.90	182.90	7,927.39	-287.08	-51.05	15.78	287.57	397,196.32	568,818.25		
8,072.00	74.90	181.10	7,937.07	-317.55	-52.11	16.52	318.05	397,165.85	568,817.19		
8,103.00	80.00	179.70	7,943.80	-347.80	-52.32	17.03	348.30	397,135.60	568,816.98		
8,135.00	86.00	179.40	7,947.70	-379.55	-52.07	18.77	380.04	397,103.85	568,817.23		



<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
8,167.00	89.50	179.00	7,948.95	-411.51	-51.62	11.01	412.00	397,071.89	568,817.68
8,261.00	91.50	178.90	7,948.13	-505.49	-49.90	2.13	505.95	396,977.91	568,819.40
8,356.00	92.30	178.70	7,944.98	-600.42	-47.91	0.87	600.86	396,882.98	568,821.39
8,452.00	91.30	179.70	7,941.97	-696.36	-46.57	1.47	696.78	396,787.04	568,822.73
8,547.00	89.60	179.40	7,941.22	-791.35	-45.82	1.82	791.76	396,692.05	568,823.48
8,642.00	89.90	179.50	7,941.64	-886.34	-44.91	0.33	886.74	396,597.06	568,824.39
8,737.00	90.50	179.00	7,941.31	-981.33	-43.67	0.82	981.71	396,502.07	568,825.63
8,832.00	92.00	179.20	7,939.23	-1,076.30	-42.18	1.59	1,076.66	396,407.10	568,827.12
8,927.00	91.00	179.50	7,936.75	-1,171.26	-41.10	1.10	1,171.60	396,312.14	568,828.20
9,022.00	89.60	179.50	7,936.25	-1,266.25	-40.27	1.47	1,266.58	396,217.15	568,829.03
9,118.00	90.90	179.60	7,935.83	-1,362.24	-39.52	1.36	1,362.56	396,121.16	568,829.78
9,213.00	89.20	179.70	7,935.75	-1,457.24	-38.94	1.79	1,457.55	396,026.16	568,830.36
9,308.00	89.70	179.20	7,936.66	-1,552.23	-38.02	0.74	1,552.53	395,931.17	568,831.28
9,403.00	90.00	179.50	7,936.91	-1,647.22	-36.95	0.45	1,647.50	395,836.18	568,832.35
9,498.00	90.70	179.20	7,936.33	-1,742.21	-35.87	0.80	1,742.48	395,741.19	568,833.43
9,593.00	90.90	179.00	7,935.00	-1,837.19	-34.38	0.30	1,837.44	395,646.21	568,834.92
9,688.00	91.30	179.10	7,933.18	-1,932.16	-32.80	0.43	1,932.39	395,551.24	568,836.50
9,783.00	89.10	179.00	7,932.85	-2,027.14	-31.23	2.32	2,027.35	395,456.26	568,838.07
9,878.00	88.50	178.30	7,934.84	-2,122.09	-28.99	0.97	2,122.28	395,361.31	568,840.31
9,974.00	89.70	179.70	7,936.34	-2,218.06	-27.31	1.92	2,218.22	395,265.34	568,841.99
10,069.00	90.80	180.10	7,935.93	-2,313.06	-27.15	1.23	2,313.22	395,170.34	568,842.15
10,164.00	90.80	180.00	7,934.60	-2,408.05	-27.23	0.11	2,408.20	395,075.35	568,842.07
10,259.00	90.70	179.70	7,933.36	-2,503.04	-26.98	0.33	2,503.19	394,980.36	568,842.32
10,354.00	91.50	179.70	7,931.54	-2,598.02	-26.48	0.84	2,598.16	394,885.38	568,842.82
10,449.00	89.10	179.10	7,931.04	-2,693.01	-25.49	2.60	2,693.13	394,790.39	568,843.81
10,544.00	89.70	179.30	7,932.03	-2,787.99	-24.16	0.67	2,788.10	394,695.41	568,845.14
10,639.00	90.50	179.70	7,931.87	-2,882.99	-23.33	0.94	2,883.08	394,600.41	568,845.97

<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)	
10,735.00	92.10	180.70	7,929.69	-2,978.96	-23.67	1.97	2,979.05	394,504.44	568,845.63	
10,830.00	92.70	180.40	7,925.71	-3,073.87	-24.58	0.71	3,073.96	394,409.53	568,844.72	
10,925.00	91.90	179.80	7,921.90	-3,168.79	-24.75	1.05	3,168.88	394,314.61	568,844.55	
11,020.00	91.10	180.10	7,919.41	-3,263.76	-24.66	0.90	3,263.85	394,219.64	568,844.64	
11,115.00	89.40	180.00	7,919.00	-3,358.76	-24.75	1.79	3,358.84	394,124.64	568,844.55	
11,211.00	90.10	179.70	7,919.42	-3,454.75	-24.49	0.79	3,454.83	394,028.65	568,844.81	
11,306.00	90.70	179.80	7,918.75	-3,549.75	-24.08	0.64	3,549.82	393,933.65	568,845.22	
11,401.00	91.50	179.60	7,916.93	-3,644.73	-23.58	0.87	3,644.79	393,838.67	568,845.72	
11,495.00	90.00	179.70	7,915.70	-3,738.72	-23.01	1.60	3,738.76	393,744.68	568,846.29	
11,590.00	90.50	179.40	7,915.28	-3,833.71	-22.26	0.61	3,833.75	393,649.69	568,847.04	
11,685.00	91.20	179.20	7,913.87	-3,928.70	-21.10	0.77	3,928.71	393,554.70	568,848.20	
11,780.00	91.80	178.80	7,911.39	-4,023.65	-19.44	0.76	4,023.65	393,459.75	568,849.86	
11,875.00	92.40	178.50	7,907.91	-4,118.56	-17.21	0.71	4,118.53	393,364.84	568,852.09	
11,970.00	90.20	178.30	7,905.75	-4,213.49	-14.56	2.33	4,213.43	393,269.91	568,854.74	
12,065.00	89.60	179.70	7,905.92	-4,308.47	-12.90	1.60	4,308.39	393,174.93	568,856.40	
12,159.00	89.30	179.00	7,906.82	-4,402.46	-11.83	0.81	4,402.37	393,080.94	568,857.47	
12,254.00	90.70	180.70	7,906.82	-4,497.45	-11.58	2.32	4,497.35	392,985.95	568,857.72	
12,350.00	91.30	181.00	7,905.14	-4,593.43	-13.01	0.70	4,593.34	392,889.97	568,856.29	
12,396.00	91.40	181.20	7,904.06	-4,639.41	-13.89	0.49	4,639.32	392,843.99	568,855.41	
12,446.00	91.40	181.20	7,902.84	-4,689.38	-14.94	0.00	4,689.30	392,794.02	568,854.36	

**Survey projected to 12446 MD**

<b>Company:</b>	Concho COG Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Myox 32 Fee Well 2H
<b>Project:</b>	Eddy County, New Mexico	<b>TVD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Site:</b>	Myox 32 Fee	<b>MD Reference:</b>	RKB=2975.1+17 @ 2992.10usft (Patriot 2)
<b>Well:</b>	Myox 32 Fee Well 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	EDM 5000.1 Ddatabase

**Design Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.00	100.00	-0.05	0.41	Gyro
7,342.00	7,339.52	-3.14	-0.98	MWD surveys
12,446.00	7,902.84	-4,689.38	-14.94	Survey projected to 12446 MD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



Concho COG Operating LLC  
 Eddy County, New Mexico  
 Myox 32 Fee  
 Myox 32 Fee Well 2H  
 rev2  
 Patriot 2

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	8103.00	80.00	179.70	7943.80	-347.80	-52.32	0.00	0.00	348.29	Survey @ 8103 MD
2	8165.00	90.50	179.70	7948.93	-409.50	-51.99	16.94	0.00	409.99	Proj. Begin 5°/100' build/turn
3	8169.28	90.52	179.91	7948.89	-413.79	-51.98	5.00	84.33	414.27	Begin 90.52° lateral
4	12444.68	90.52	179.91	7910.00	-4689.00	-45.50	0.00	0.00	4689.22	PBHL/TD

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
100.00	100.00	0.47	97.32	-0.05	0.41	0.05	0.41	Gyro
7339.52	7342.00	1.80	128.90	-3.14	-0.98	3.15	172.96	MWD surveys
7902.84	12446.00	91.40	181.20	-4689.38	-14.94	4689.30	4866.96	Survey projected to 12446 MD

SURFACE LOCATION

Datum: RKB=2975.1+17 @ 2992.10usft (Patriot 2)  
 US State Plane 1927 (Exact solution)  
 New Mexico East 3001

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	397483.40	568869.30	32° 5' 33.36932364 N	104° 6' 39.40899457 W



Azimuths to Grid North  
 True North: -0.12°  
 Magnetic North: 7.44°

Magnetic Field  
 Strength: 48268.2snT  
 Dip Angle: 59.92°  
 Date: 8/1/2013  
 Model: IGRF2010

