

# **NORTHERN DELAWARE BASIN**

**LEA COUNTY, NM**

**ZEUS**

**LYCHEE STATE COM 503H**

**OWB**

**Design: AWP**

## **Standard Survey Report**

**07 January, 2020**

# Concho Resources LLC

## Survey Report

<b>Company:</b> NORTHERN DELAWARE BASIN	<b>Local Co-ordinate Reference:</b> Well LYCHEE STATE COM 503H
<b>Project:</b> LEA COUNTY, NM	<b>TVD Reference:</b> KB=25' @ 3738.0usft (Lattshaw 44)
<b>Site:</b> ZEUS	<b>MD Reference:</b> KB=25' @ 3738.0usft (Lattshaw 44)
<b>Well:</b> LYCHEE STATE COM 503H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OWB	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> AWP	<b>Database:</b> edm

<b>Project</b> LEA COUNTY, NM	
<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> ZEUS		
<b>Site Position:</b>	<b>Northing:</b> 597,166.40 usft	<b>Latitude:</b> 32° 38' 24.583 N
<b>From:</b> Map	<b>Easting:</b> 692,087.80 usft	<b>Longitude:</b> 103° 42' 33.536 W
<b>Position Uncertainty:</b> 0.0 usft	<b>Slot Radius:</b> 13-3/16 "	<b>Grid Convergence:</b> 0.34 °

<b>Well</b> LYCHEE STATE COM 503H, ACTIVE		
<b>Well Position</b> +N/-S 0.0 usft	<b>Northing:</b> 531,502.00 usft	<b>Latitude:</b> 32° 27' 29.474 N
+E/-W 0.0 usft	<b>Easting:</b> 769,158.30 usft	<b>Longitude:</b> 103° 27' 38.567 W
<b>Position Uncertainty</b> 3.0 usft	<b>Wellhead Elevation:</b> usft	<b>Ground Level:</b> 3,713.0 usft

<b>Wellbore</b> OWB					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	11/25/2019	6.65	60.26	47,834.56633207

<b>Design</b> AWP				
<b>Audit Notes:</b>				
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b> 0.0		
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	1.78

<b>Survey Program</b>		<b>Date</b> 1/7/2020		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
143.0	1,701.0	MWD-SURFACE SVYS (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction
1,896.0	20,826.0	MWD (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

<b>Survey</b>									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
143.0	0.97	333.58	143.0	1.1	-0.5	1.1	0.68	0.68	0.00
224.0	1.00	31.41	224.0	2.3	-0.5	2.3	1.18	0.04	71.40
310.0	0.40	307.65	310.0	3.1	-0.3	3.1	1.20	-0.70	-97.40
391.0	0.79	52.13	391.0	3.6	-0.1	3.6	1.20	0.48	128.99
463.0	0.79	56.99	463.0	4.2	0.7	4.2	0.09	0.00	6.75
554.0	0.66	70.44	554.0	4.7	1.7	4.8	0.23	-0.14	14.78
642.0	0.57	75.89	642.0	5.0	2.6	5.1	0.12	-0.10	6.19
731.0	0.92	57.52	730.9	5.5	3.7	5.6	0.47	0.39	-20.64
822.0	0.79	68.85	821.9	6.1	4.9	6.3	0.23	-0.14	12.45

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<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	AWP	<b>Database:</b>	edm

### Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
911.0	0.62	59.71	910.9	6.6	5.8	6.8	0.23	-0.19	-10.27
994.0	0.44	16.56	993.9	7.1	6.3	7.3	0.51	-0.22	-51.99
1,081.0	0.35	9.18	1,080.9	7.7	6.5	7.9	0.12	-0.10	-8.48
1,167.0	0.31	311.08	1,166.9	8.1	6.3	8.3	0.37	-0.05	-67.56
1,257.0	0.09	294.29	1,256.9	8.3	6.1	8.5	0.25	-0.24	-18.66
1,347.0	0.04	84.23	1,346.9	8.3	6.0	8.5	0.14	-0.06	166.60
1,433.0	0.13	317.41	1,432.9	8.4	6.0	8.6	0.18	0.10	-147.47
1,523.0	0.26	31.06	1,522.9	8.7	6.0	8.8	0.28	0.14	81.83
1,610.0	0.62	41.52	1,609.9	9.2	6.5	9.4	0.42	0.41	12.02
1,701.0	0.57	20.60	1,700.9	10.0	6.9	10.2	0.24	-0.05	-22.99
1,896.0	1.17	57.70	1,895.9	11.9	9.0	12.2	0.41	0.31	19.03
1,991.0	2.03	74.79	1,990.9	12.9	11.4	13.2	1.03	0.91	17.99
2,085.0	1.75	70.90	2,084.8	13.8	14.4	14.2	0.33	-0.30	-4.14
2,180.0	1.25	68.82	2,179.8	14.7	16.7	15.2	0.53	-0.53	-2.19
2,273.0	0.99	56.96	2,272.8	15.5	18.3	16.0	0.37	-0.28	-12.75
2,368.0	1.55	50.74	2,367.7	16.7	20.0	17.3	0.61	0.59	-6.55
2,462.0	2.35	50.10	2,461.7	18.8	22.5	19.5	0.85	0.85	-0.68
2,556.0	1.35	40.54	2,555.6	20.8	24.7	21.6	1.11	-1.06	-10.17
2,650.0	1.72	15.39	2,649.6	23.0	25.8	23.8	0.81	0.39	-26.76
2,745.0	2.13	14.25	2,744.5	26.1	26.6	26.9	0.43	0.43	-1.20
2,839.0	2.32	359.46	2,838.5	29.7	27.0	30.5	0.64	0.20	-15.73
2,933.0	1.89	340.38	2,932.4	33.1	26.5	33.9	0.87	-0.46	-20.30
3,027.0	1.41	285.15	3,026.4	34.8	24.8	35.6	1.69	-0.51	-58.76
3,122.0	1.41	261.16	3,121.3	35.0	22.5	35.7	0.62	0.00	-25.25
3,216.0	1.75	247.35	3,215.3	34.2	20.1	34.9	0.54	0.36	-14.69
3,310.0	2.23	239.77	3,309.3	32.8	17.2	33.3	0.58	0.51	-8.06
3,404.0	2.42	246.87	3,403.2	31.1	13.8	31.5	0.37	0.20	7.55
3,498.0	2.15	226.04	3,497.1	29.1	10.7	29.4	0.92	-0.29	-22.16
3,593.0	0.95	142.74	3,592.1	27.2	9.9	27.5	2.37	-1.26	-87.68
3,687.0	1.76	110.78	3,686.0	26.1	11.7	26.4	1.15	0.86	-34.00
3,781.0	2.26	99.26	3,780.0	25.3	14.9	25.7	0.68	0.53	-12.26
3,874.0	2.05	107.49	3,872.9	24.5	18.3	25.0	0.40	-0.23	8.85
3,968.0	1.86	117.84	3,966.9	23.2	21.2	23.9	0.43	-0.20	11.01
4,063.0	1.01	146.15	4,061.8	21.8	23.0	22.5	1.14	-0.89	29.80
4,157.0	0.85	128.58	4,155.8	20.7	24.0	21.4	0.35	-0.17	-18.69
4,251.0	0.73	135.47	4,249.8	19.8	25.0	20.6	0.16	-0.13	7.33
4,346.0	0.72	116.17	4,344.8	19.2	26.0	19.9	0.26	-0.01	-20.32
4,441.0	0.25	111.81	4,439.8	18.8	26.7	19.6	0.50	-0.49	-4.59
4,535.0	0.63	10.68	4,533.8	19.2	27.0	20.1	0.77	0.40	-107.59
4,630.0	0.61	16.31	4,628.8	20.2	27.2	21.1	0.07	-0.02	5.93
4,725.0	0.37	300.10	4,723.8	20.9	27.1	21.7	0.67	-0.25	-80.22
4,819.0	0.61	303.06	4,817.8	21.3	26.4	22.1	0.26	0.26	3.15
4,913.0	0.71	308.84	4,911.8	21.9	25.5	22.7	0.13	0.11	6.15

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<b>Design:</b>	AWP	<b>Database:</b>	edm

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,007.0	1.25	290.93	5,005.8	22.7	24.1	23.4	0.65	0.57	-19.05	
5,102.0	1.79	299.51	5,100.7	23.8	21.9	24.4	0.62	0.57	9.03	
5,196.0	2.46	297.28	5,194.7	25.4	18.8	26.0	0.72	0.71	-2.37	
5,291.0	2.16	298.02	5,289.6	27.2	15.4	27.7	0.32	-0.32	0.78	
5,384.0	2.00	309.74	5,382.5	29.1	12.6	29.4	0.49	-0.17	12.60	
5,478.0	1.91	316.13	5,476.5	31.2	10.3	31.5	0.25	-0.10	6.80	
5,572.0	1.76	303.74	5,570.4	33.2	8.0	33.4	0.45	-0.16	-13.18	
5,694.0	1.44	299.81	5,692.4	35.0	5.1	35.1	0.28	-0.26	-3.22	
5,757.0	0.98	286.86	5,755.4	35.5	3.9	35.6	0.84	-0.73	-20.56	
5,851.0	1.40	142.13	5,849.4	34.9	3.8	35.0	2.42	0.45	-153.97	
5,946.0	4.51	136.92	5,944.2	31.2	7.1	31.4	3.28	3.27	-5.48	
6,040.0	6.95	141.25	6,037.8	24.1	13.2	24.5	2.63	2.60	4.61	
6,134.0	6.70	144.53	6,131.1	15.2	19.9	15.8	0.49	-0.27	3.49	
6,227.0	6.83	144.10	6,223.4	6.3	26.3	7.1	0.15	0.14	-0.46	
6,322.0	6.49	142.41	6,317.8	-2.6	32.9	-1.5	0.41	-0.36	-1.78	
6,416.0	6.47	140.66	6,411.2	-10.9	39.5	-9.6	0.21	-0.02	-1.86	
6,511.0	6.50	143.87	6,505.6	-19.3	46.1	-17.9	0.38	0.03	3.38	
6,605.0	6.63	143.26	6,599.0	-28.0	52.4	-26.4	0.16	0.14	-0.65	
6,699.0	6.52	143.29	6,692.4	-36.6	58.9	-34.8	0.12	-0.12	0.03	
6,793.0	6.73	143.85	6,785.7	-45.3	65.3	-43.3	0.23	0.22	0.60	
6,888.0	6.47	143.33	6,880.1	-54.1	71.8	-51.9	0.28	-0.27	-0.55	
6,981.0	6.45	143.29	6,972.5	-62.5	78.1	-60.1	0.02	-0.02	-0.04	
7,075.0	6.33	140.66	7,065.9	-70.8	84.5	-68.1	0.34	-0.13	-2.80	
7,170.0	6.58	143.32	7,160.3	-79.2	91.1	-76.3	0.41	0.26	2.80	
7,264.0	6.35	140.47	7,253.7	-87.5	97.6	-84.4	0.42	-0.24	-3.03	
7,358.0	6.24	140.08	7,347.2	-95.4	104.2	-92.2	0.13	-0.12	-0.41	
7,453.0	6.15	141.71	7,441.6	-103.4	110.6	-99.9	0.21	-0.09	1.72	
7,547.0	6.12	139.68	7,535.1	-111.2	117.0	-107.5	0.23	-0.03	-2.16	
7,641.0	5.61	138.51	7,628.6	-118.4	123.3	-114.5	0.56	-0.54	-1.24	
7,736.0	5.51	138.13	7,723.1	-125.3	129.4	-121.2	0.11	-0.11	-0.40	
7,830.0	5.38	135.07	7,816.7	-131.8	135.5	-127.5	0.34	-0.14	-3.26	
7,924.0	5.11	136.95	7,910.3	-138.0	141.5	-133.5	0.34	-0.29	2.00	
8,018.0	4.90	136.13	8,003.9	-143.9	147.1	-139.3	0.24	-0.22	-0.87	
8,112.0	4.56	131.33	8,097.6	-149.3	152.7	-144.5	0.55	-0.36	-5.11	
8,206.0	4.52	131.46	8,191.3	-154.2	158.3	-149.2	0.04	-0.04	0.14	
8,301.0	4.51	132.06	8,286.0	-159.2	163.9	-154.0	0.05	-0.01	0.63	
8,395.0	4.82	132.22	8,379.7	-164.3	169.6	-159.0	0.33	0.33	0.17	
8,490.0	5.04	131.54	8,474.4	-169.8	175.6	-164.2	0.24	0.23	-0.72	
8,584.0	5.20	130.72	8,568.0	-175.3	182.0	-169.5	0.19	0.17	-0.87	
8,677.0	4.76	127.46	8,660.6	-180.4	188.2	-174.4	0.56	-0.47	-3.51	
8,772.0	4.72	124.11	8,755.3	-185.0	194.6	-178.8	0.29	-0.04	-3.53	
8,866.0	4.73	124.33	8,849.0	-189.3	201.0	-183.0	0.02	0.01	0.23	
8,960.0	4.97	117.84	8,942.7	-193.4	207.8	-186.9	0.64	0.26	-6.90	

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9,054.0	6.38	114.49	9,036.2	-197.5	216.1	-190.7	1.54	1.50	-3.56	
9,148.0	7.27	133.03	9,129.5	-203.7	225.2	-196.6	2.51	0.95	19.72	
9,241.0	6.92	133.57	9,221.8	-211.6	233.6	-204.2	0.38	-0.38	0.58	
9,335.0	6.71	136.81	9,315.2	-219.5	241.5	-211.9	0.47	-0.22	3.45	
9,430.0	7.06	138.15	9,409.5	-227.9	249.2	-220.0	0.41	0.37	1.41	
9,525.0	7.59	143.78	9,503.7	-237.3	256.8	-229.2	0.94	0.56	5.93	
9,619.0	6.48	142.67	9,597.0	-246.5	263.6	-238.2	1.19	-1.18	-1.18	
9,714.0	4.55	146.76	9,691.6	-253.9	269.0	-245.5	2.07	-2.03	4.31	
9,809.0	2.53	152.82	9,786.4	-258.9	272.0	-250.4	2.16	-2.13	6.38	
9,903.0	3.03	149.08	9,880.3	-262.9	274.2	-254.3	0.57	0.53	-3.98	
10,021.0	8.01	151.46	9,997.7	-272.8	279.7	-264.0	4.22	4.22	2.02	
10,084.0	10.61	140.05	10,059.9	-281.1	285.6	-272.1	5.04	4.13	-18.11	
10,116.0	5.79	133.33	10,091.5	-284.5	288.6	-275.4	15.33	-15.06	-21.00	
10,148.0	3.60	106.34	10,123.4	-285.9	290.8	-276.7	9.54	-6.84	-84.34	
10,179.0	3.74	60.14	10,154.4	-285.7	292.6	-276.4	9.29	0.45	-149.03	
10,211.0	5.43	31.30	10,186.3	-283.8	294.3	-274.6	8.77	5.28	-90.13	
10,242.0	9.58	13.03	10,217.0	-280.1	295.6	-270.8	15.28	13.39	-58.94	
10,273.0	12.69	11.98	10,247.4	-274.2	296.9	-264.9	10.05	10.03	-3.39	
10,304.0	16.23	11.17	10,277.4	-266.6	298.5	-257.3	11.44	11.42	-2.61	
10,336.0	19.46	14.69	10,307.9	-257.1	300.7	-247.7	10.64	10.09	11.00	
10,355.0	21.78	14.89	10,325.6	-250.6	302.4	-241.1	12.22	12.21	1.05	
10,386.0	25.28	12.92	10,354.1	-238.6	305.3	-229.0	11.57	11.29	-6.35	
10,418.0	29.97	9.78	10,382.4	-224.1	308.2	-214.4	15.34	14.66	-9.81	
10,449.0	34.11	7.96	10,408.7	-207.8	310.7	-198.1	13.71	13.35	-5.87	
10,481.0	38.25	8.02	10,434.5	-189.1	313.4	-179.3	12.94	12.94	0.19	
10,544.0	47.29	7.92	10,480.7	-146.8	319.3	-136.8	14.35	14.35	-0.16	
10,575.0	52.12	7.96	10,500.8	-123.4	322.6	-113.3	15.58	15.58	0.13	
10,622.0	59.93	8.74	10,527.0	-84.9	328.2	-74.6	16.67	16.62	1.66	
10,670.0	67.66	7.97	10,548.2	-42.3	334.5	-31.9	16.17	16.10	-1.60	
10,717.0	74.58	8.70	10,563.4	1.7	340.9	12.3	14.80	14.72	1.55	
10,744.0	78.81	8.40	10,569.6	27.7	344.8	38.3	15.70	15.67	-1.11	
10,799.0	86.02	6.57	10,576.8	81.7	351.9	92.6	13.52	13.11	-3.33	
10,893.0	86.11	5.50	10,583.3	175.0	361.8	186.1	1.14	0.10	-1.14	
10,987.0	86.65	5.01	10,589.2	268.4	370.4	279.7	0.78	0.57	-0.52	
11,081.0	87.57	4.25	10,594.0	361.9	377.9	373.5	1.27	0.98	-0.81	
11,175.0	87.82	4.41	10,597.8	455.6	385.0	467.3	0.32	0.27	0.17	
11,270.0	87.96	4.70	10,601.2	550.2	392.6	562.1	0.34	0.15	0.31	
11,364.0	86.53	4.61	10,605.8	643.8	400.2	655.9	1.52	-1.52	-0.10	
11,458.0	84.91	4.30	10,612.8	737.3	407.5	749.5	1.75	-1.72	-0.33	
11,552.0	83.41	3.00	10,622.3	830.6	413.4	843.0	2.11	-1.60	-1.38	
11,647.0	81.02	1.02	10,635.2	924.6	416.7	937.1	3.25	-2.52	-2.08	
11,742.0	78.31	358.93	10,652.3	1,018.1	416.7	1,030.5	3.58	-2.85	-2.20	
11,836.0	77.24	358.63	10,672.2	1,109.9	414.7	1,122.2	1.18	-1.14	-0.32	
11,930.0	76.61	357.88	10,693.4	1,201.4	412.0	1,213.6	1.03	-0.67	-0.80	

# Concho Resources LLC

## Survey Report

<b>Company:</b>	NORTHERN DELAWARE BASIN	<b>Local Co-ordinate Reference:</b>	Well LYCHEE STATE COM 503H
<b>Project:</b>	LEA COUNTY, NM	<b>TVD Reference:</b>	KB=25' @ 3738.0usft (Lattshaw 44)
<b>Site:</b>	ZEUS	<b>MD Reference:</b>	KB=25' @ 3738.0usft (Lattshaw 44)
<b>Well:</b>	LYCHEE STATE COM 503H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	AWP	<b>Database:</b>	edm

### Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,025.0	77.42	357.58	10,714.8	1,293.9	408.3	1,306.0	0.91	0.85	-0.32
12,120.0	80.13	357.23	10,733.3	1,387.0	404.1	1,398.9	2.88	2.85	-0.37
12,215.0	81.27	357.58	10,748.6	1,480.7	399.8	1,492.4	1.25	1.20	0.37
12,310.0	80.57	357.69	10,763.6	1,574.4	396.0	1,585.9	0.75	-0.74	0.12
12,404.0	82.66	358.69	10,777.3	1,667.3	393.0	1,678.7	2.46	2.22	1.06
12,498.0	83.84	0.23	10,788.4	1,760.7	392.1	1,772.0	2.05	1.26	1.64
12,593.0	85.76	0.96	10,797.0	1,855.3	393.1	1,866.6	2.16	2.02	0.77
12,688.0	86.14	0.36	10,803.7	1,950.0	394.2	1,961.3	0.75	0.40	-0.63
12,782.0	85.82	359.45	10,810.3	2,043.8	394.1	2,055.0	1.02	-0.34	-0.97
12,876.0	84.60	0.04	10,818.1	2,137.5	393.6	2,148.6	1.44	-1.30	0.63
12,969.0	84.74	359.25	10,826.8	2,230.1	393.1	2,241.2	0.86	0.15	-0.85
13,063.0	86.32	357.46	10,834.1	2,323.7	390.4	2,334.7	2.54	1.68	-1.90
13,157.0	90.57	357.22	10,836.6	2,417.6	386.0	2,428.4	4.53	4.52	-0.26
13,251.0	93.70	358.49	10,833.1	2,511.4	382.5	2,522.1	3.59	3.33	1.35
13,346.0	93.67	358.72	10,827.0	2,606.2	380.2	2,616.7	0.24	-0.03	0.24
13,440.0	93.78	358.84	10,820.9	2,700.0	378.2	2,710.4	0.17	0.12	0.13
13,531.0	94.34	359.13	10,814.5	2,790.8	376.6	2,801.1	0.69	0.62	0.32
13,626.0	92.86	357.91	10,808.5	2,885.5	374.1	2,895.7	2.02	-1.56	-1.28
13,720.0	93.03	357.56	10,803.7	2,979.3	370.4	2,989.4	0.41	0.18	-0.37
13,814.0	93.29	357.56	10,798.5	3,073.1	366.4	3,083.0	0.28	0.28	0.00
13,909.0	91.08	357.99	10,794.9	3,168.0	362.8	3,177.7	2.37	-2.33	0.45
14,004.0	91.04	358.36	10,793.1	3,262.9	359.7	3,272.5	0.39	-0.04	0.39
14,098.0	91.16	359.04	10,791.3	3,356.8	357.6	3,366.3	0.73	0.13	0.72
14,193.0	91.80	359.27	10,788.9	3,451.8	356.2	3,461.2	0.72	0.67	0.24
14,287.0	92.30	359.57	10,785.5	3,545.7	355.2	3,555.0	0.62	0.53	0.32
14,381.0	93.08	359.70	10,781.1	3,639.6	354.6	3,648.9	0.84	0.83	0.14
14,476.0	91.50	0.27	10,777.3	3,734.6	354.6	3,743.8	1.77	-1.66	0.60
14,570.0	91.72	0.51	10,774.7	3,828.5	355.3	3,837.7	0.35	0.23	0.26
14,664.0	92.45	0.77	10,771.2	3,922.4	356.3	3,931.6	0.82	0.78	0.28
14,758.0	90.36	359.92	10,768.9	4,016.4	356.9	4,025.5	2.40	-2.22	-0.90
14,852.0	90.42	359.59	10,768.3	4,110.4	356.5	4,119.5	0.36	0.06	-0.35
14,947.0	91.60	359.49	10,766.6	4,205.4	355.7	4,214.4	1.25	1.24	-0.11
15,041.0	89.36	0.26	10,765.8	4,299.4	355.5	4,308.3	2.52	-2.38	0.82
15,135.0	88.78	0.41	10,767.4	4,393.4	356.1	4,402.3	0.64	-0.62	0.16
15,230.0	88.81	0.53	10,769.4	4,488.3	356.8	4,497.2	0.13	0.03	0.13
15,324.0	89.11	0.03	10,771.1	4,582.3	357.3	4,591.2	0.62	0.32	-0.53
15,419.0	90.55	0.22	10,771.3	4,677.3	357.5	4,686.2	1.53	1.52	0.20
15,513.0	90.56	0.21	10,770.4	4,771.3	357.9	4,780.1	0.02	0.01	-0.01
15,607.0	90.56	0.50	10,769.5	4,865.3	358.4	4,874.1	0.31	0.00	0.31
15,701.0	91.88	359.95	10,767.5	4,959.3	358.8	4,968.0	1.52	1.40	-0.59
15,796.0	92.48	0.06	10,763.9	5,054.2	358.8	5,062.9	0.64	0.63	0.12
15,890.0	92.22	0.03	10,760.0	5,148.1	358.9	5,156.8	0.28	-0.28	-0.03
15,984.0	92.78	359.90	10,755.9	5,242.0	358.8	5,250.6	0.61	0.60	-0.14

# Concho Resources LLC

## Survey Report

<b>Company:</b>	NORTHERN DELAWARE BASIN	<b>Local Co-ordinate Reference:</b>	Well LYCHEE STATE COM 503H
<b>Project:</b>	LEA COUNTY, NM	<b>TVD Reference:</b>	KB=25' @ 3738.0usft (Lattshaw 44)
<b>Site:</b>	ZEUS	<b>MD Reference:</b>	KB=25' @ 3738.0usft (Lattshaw 44)
<b>Well:</b>	LYCHEE STATE COM 503H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	AWP	<b>Database:</b>	edm

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,079.0	94.12	359.87	10,750.2	5,336.9	358.6	5,345.4	1.41	1.41	-0.03	
16,172.0	91.95	359.51	10,745.3	5,429.7	358.1	5,438.2	2.37	-2.33	-0.39	
16,267.0	91.84	359.26	10,742.2	5,524.7	357.1	5,533.1	0.29	-0.12	-0.26	
16,361.0	91.87	359.43	10,739.1	5,618.6	356.0	5,627.0	0.18	0.03	0.18	
16,455.0	92.21	359.62	10,735.8	5,712.6	355.3	5,720.8	0.41	0.36	0.20	
16,550.0	92.32	0.03	10,732.0	5,807.5	355.0	5,815.7	0.45	0.12	0.43	
16,644.0	92.09	359.89	10,728.4	5,901.4	354.9	5,909.6	0.29	-0.24	-0.15	
16,738.0	92.11	359.97	10,725.0	5,995.3	354.8	6,003.5	0.09	0.02	0.09	
16,832.0	92.44	359.71	10,721.2	6,089.3	354.5	6,097.3	0.45	0.35	-0.28	
16,926.0	93.11	359.22	10,716.7	6,183.2	353.7	6,191.1	0.88	0.71	-0.52	
17,019.0	89.69	358.50	10,714.4	6,276.1	351.8	6,284.0	3.76	-3.68	-0.77	
17,114.0	89.88	358.38	10,714.8	6,371.1	349.2	6,378.8	0.24	0.20	-0.13	
17,208.0	90.47	358.28	10,714.5	6,465.0	346.5	6,472.7	0.64	0.63	-0.11	
17,302.0	90.88	358.22	10,713.4	6,559.0	343.6	6,566.5	0.44	0.44	-0.06	
17,396.0	91.12	358.11	10,711.7	6,652.9	340.6	6,660.3	0.28	0.26	-0.12	
17,491.0	91.27	358.30	10,709.7	6,747.8	337.6	6,755.1	0.25	0.16	0.20	
17,585.0	90.04	359.00	10,708.7	6,841.8	335.4	6,848.9	1.51	-1.31	0.74	
17,679.0	89.95	358.77	10,708.7	6,935.8	333.6	6,942.8	0.26	-0.10	-0.24	
17,773.0	90.41	358.49	10,708.4	7,029.8	331.3	7,036.7	0.57	0.49	-0.30	
17,868.0	88.96	359.00	10,708.9	7,124.7	329.3	7,131.5	1.62	-1.53	0.54	
17,962.0	89.07	358.57	10,710.5	7,218.7	327.3	7,225.4	0.47	0.12	-0.46	
18,057.0	88.56	358.90	10,712.5	7,313.7	325.2	7,320.2	0.64	-0.54	0.35	
18,151.0	87.76	359.58	10,715.5	7,407.6	323.9	7,414.1	1.12	-0.85	0.72	
18,245.0	88.39	359.70	10,718.7	7,501.5	323.3	7,508.0	0.68	0.67	0.13	
18,340.0	88.56	358.92	10,721.2	7,596.5	322.2	7,602.8	0.84	0.18	-0.82	
18,435.0	88.30	359.03	10,723.8	7,691.4	320.5	7,697.7	0.30	-0.27	0.12	
18,528.0	88.97	0.32	10,726.0	7,784.4	320.0	7,790.6	1.56	0.72	1.39	
18,622.0	90.35	1.15	10,726.6	7,878.4	321.2	7,884.6	1.71	1.47	0.88	
18,716.0	91.69	0.21	10,724.9	7,972.4	322.3	7,978.5	1.74	1.43	-1.00	
18,810.0	91.80	359.54	10,722.0	8,066.3	322.1	8,072.4	0.72	0.12	-0.71	
18,904.0	92.86	359.16	10,718.2	8,160.3	321.0	8,166.3	1.20	1.13	-0.40	
18,999.0	93.82	358.88	10,712.7	8,255.1	319.4	8,261.0	1.05	1.01	-0.29	
19,093.0	93.11	359.53	10,707.0	8,348.9	318.1	8,354.7	1.02	-0.76	0.69	
19,188.0	91.89	0.28	10,702.8	8,443.8	317.9	8,449.6	1.51	-1.28	0.79	
19,282.0	89.31	0.40	10,701.9	8,537.8	318.5	8,543.6	2.75	-2.74	0.13	
19,376.0	89.49	0.22	10,702.8	8,631.8	319.0	8,637.5	0.27	0.19	-0.19	
19,471.0	89.59	359.53	10,703.6	8,726.8	318.8	8,732.5	0.73	0.11	-0.73	
19,565.0	89.90	359.21	10,704.0	8,820.8	317.8	8,826.4	0.47	0.33	-0.34	
19,659.0	90.20	359.12	10,703.9	8,914.8	316.4	8,920.3	0.33	0.32	-0.10	
19,752.0	90.45	358.99	10,703.4	9,007.7	314.9	9,013.2	0.30	0.27	-0.14	
19,846.0	91.31	359.60	10,702.0	9,101.7	313.7	9,107.1	1.12	0.91	0.65	
19,940.0	92.02	359.92	10,699.2	9,195.7	313.3	9,201.0	0.83	0.76	0.34	
20,034.0	92.82	359.58	10,695.3	9,289.6	312.9	9,294.8	0.92	0.85	-0.36	

# Concho Resources LLC

## Survey Report

<b>Company:</b> NORTHERN DELAWARE BASIN	<b>Local Co-ordinate Reference:</b> Well LYCHEE STATE COM 503H
<b>Project:</b> LEA COUNTY, NM	<b>TVD Reference:</b> KB=25' @ 3738.0usft (Lattshaw 44)
<b>Site:</b> ZEUS	<b>MD Reference:</b> KB=25' @ 3738.0usft (Lattshaw 44)
<b>Well:</b> LYCHEE STATE COM 503H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OWB	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> AWP	<b>Database:</b> edm

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
20,127.0	93.34	359.46	10,690.3	9,382.5	312.1	9,387.6	0.57	0.56	-0.13	
20,221.0	91.81	359.46	10,686.1	9,476.4	311.2	9,481.5	1.63	-1.63	0.00	
20,316.0	91.67	359.71	10,683.2	9,571.3	310.5	9,576.3	0.30	-0.15	0.26	
20,410.0	92.56	359.34	10,679.7	9,665.2	309.8	9,670.2	1.03	0.95	-0.39	
20,505.0	93.70	359.36	10,674.5	9,760.1	308.7	9,765.0	1.20	1.20	0.02	
20,600.0	93.49	359.34	10,668.6	9,854.9	307.6	9,859.7	0.22	-0.22	-0.02	
20,695.0	94.34	359.30	10,662.1	9,949.7	306.5	9,954.4	0.90	0.89	-0.04	
20,761.0	94.88	359.48	10,656.8	10,015.5	305.8	10,020.1	0.86	0.82	0.27	
<b>LAST SVY @ 20761'MD</b>										
20,797.0	94.88	359.48	10,653.7	10,051.3	305.5	10,056.0	0.00	0.00	0.00	
<b>LTP @ 20797'MD,</b>										
20,826.0	94.88	359.48	10,651.2	10,080.2	305.2	10,084.8	0.00	0.00	0.00	
<b>PTD @ 20826'MD</b>										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
20,761.0	10,656.8	10,015.5	305.8	LAST SVY @ 20761'MD	
20,797.0	10,653.7	10,051.3	305.5	LTP @ 20797'MD,	
20,826.0	10,651.2	10,080.2	305.2	PTD @ 20826'MD	

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