

Concho Operating

Lea County, NM (Nad 27)

White Falcon 16 State

White Falcon 16 State #24H

#24H

Design: #24H

Standard Survey Report

24 March, 2018

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SEP 21 2018
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Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Project	Lea County, NM (Nad 27)		
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		White Falcon 16 State			
Site Position:		Northing:	414,833.50 usft	Latitude:	32.137°N
From:	Map	Easting:	795,654.00 usft	Longitude:	103.378°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.51 °

Well	White Falcon 16 State #24H					
Well Position	+N/-S	0.00 ft	Northing:	414,833.50 usf	Latitude:	32.137°N
	+E/-W	0.00 ft	Easting:	795,654.00 usf	Longitude:	103.378°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,255.00 ft

Wellbore	#24H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/1/2017	6.83	60.01	47,886.43812376

Design	#24H				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	179.48	

Survey Program	Date 3/24/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	11,412.00	SDI Keeper Gyro (#24H)	Keeper	Keeper Standard Rate Gyro
11,455.00	22,388.00	DrilTech MWD tied to Gyro (#24H)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.40	60.81	100.00	0.17	0.30	-0.17	0.40	0.40	0.00
100' MD SDI Gyro Survey Keeper Gyro									
125.00	0.31	83.54	125.00	0.22	0.45	-0.22	0.66	-0.36	90.92
150.00	0.35	77.14	150.00	0.25	0.59	-0.24	0.22	0.16	-25.60
175.00	0.42	56.71	175.00	0.31	0.74	-0.31	0.61	0.28	-81.72
200.00	0.46	48.90	200.00	0.43	0.89	-0.42	0.29	0.16	-31.24
225.00	0.55	45.66	225.00	0.58	1.05	-0.57	0.38	0.36	-12.96
250.00	0.59	47.08	249.99	0.75	1.23	-0.74	0.17	0.16	5.68
275.00	0.60	53.39	274.99	0.92	1.43	-0.90	0.26	0.04	25.24



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Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
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Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
300.00	0.55	47.74	299.99	1.07	1.63	-1.06	0.30	-0.20	-22.60	
325.00	0.60	48.91	324.99	1.24	1.82	-1.22	0.21	0.20	4.68	
350.00	0.60	48.54	349.99	1.41	2.01	-1.40	0.02	0.00	-1.48	
375.00	0.49	63.21	374.99	1.55	2.21	-1.53	0.71	-0.44	58.68	
400.00	0.74	44.02	399.99	1.71	2.41	-1.69	1.28	1.00	-76.76	
425.00	0.85	33.73	424.98	1.98	2.63	-1.96	0.72	0.44	-41.16	
450.00	0.84	38.50	449.98	2.28	2.85	-2.25	0.28	-0.04	19.08	
475.00	0.88	31.56	474.98	2.59	3.06	-2.56	0.45	0.16	-27.76	
500.00	1.12	26.89	499.98	2.97	3.27	-2.94	1.01	0.96	-18.68	
525.00	1.19	27.51	524.97	3.42	3.50	-3.39	0.28	0.28	2.48	
550.00	1.12	26.46	549.97	3.87	3.73	-3.83	0.29	-0.28	-4.20	
575.00	1.15	26.38	574.96	4.31	3.95	-4.27	0.12	0.12	-0.32	
600.00	1.22	27.64	599.95	4.77	4.19	-4.73	0.30	0.28	5.04	
625.00	1.11	30.88	624.95	5.21	4.43	-5.17	0.51	-0.44	12.96	
650.00	1.13	27.72	649.94	5.64	4.67	-5.60	0.26	0.08	-12.64	
675.00	1.11	24.69	674.94	6.08	4.89	-6.03	0.25	-0.08	-12.12	
700.00	1.10	20.03	699.94	6.52	5.07	-6.48	0.36	-0.04	-18.64	
725.00	1.14	9.55	724.93	6.99	5.19	-6.95	0.83	0.16	-41.92	
750.00	0.99	356.68	749.93	7.46	5.22	-7.41	1.13	-0.60	-51.48	
775.00	1.20	347.29	774.92	7.93	5.15	-7.88	1.10	0.84	-37.56	
800.00	1.40	337.71	799.92	8.46	4.98	-8.42	1.18	0.80	-38.32	
825.00	1.42	339.89	824.91	9.04	4.76	-8.99	0.23	0.08	8.72	
850.00	1.51	334.90	849.90	9.63	4.51	-9.59	0.62	0.36	-19.96	
875.00	1.58	329.54	874.89	10.22	4.20	-10.18	0.64	0.28	-21.44	
900.00	1.79	331.71	899.88	10.86	3.84	-10.83	0.88	0.84	8.68	
925.00	1.94	330.50	924.87	11.58	3.44	-11.54	0.62	0.60	-4.84	
950.00	2.00	333.03	949.85	12.33	3.04	-12.30	0.42	0.24	10.12	
975.00	2.00	332.12	974.84	13.11	2.64	-13.08	0.13	0.00	-3.64	
1,000.00	2.05	334.79	999.82	13.90	2.24	-13.88	0.43	0.20	10.68	
1,025.00	1.99	332.34	1,024.81	14.69	1.85	-14.67	0.42	-0.24	-9.80	
1,050.00	1.95	335.41	1,049.79	15.46	1.47	-15.44	0.45	-0.16	12.28	
1,075.00	1.91	332.47	1,074.78	16.21	1.10	-16.20	0.43	-0.16	-11.76	
1,100.00	1.87	331.59	1,099.76	16.94	0.71	-16.93	0.20	-0.16	-3.52	
1,125.00	1.82	325.17	1,124.75	17.63	0.29	-17.62	0.85	-0.20	-25.68	
1,150.00	1.76	321.93	1,149.74	18.25	-0.17	-18.26	0.47	-0.24	-12.96	
1,175.00	1.69	318.95	1,174.73	18.83	-0.65	-18.84	0.46	-0.28	-11.92	
1,200.00	1.67	317.38	1,199.72	19.38	-1.14	-19.39	0.20	-0.08	-6.28	
1,225.00	1.56	304.94	1,224.71	19.84	-1.66	-19.86	1.47	-0.44	-49.76	
1,250.00	1.51	279.97	1,249.70	20.10	-2.27	-20.12	2.66	-0.20	-99.88	
1,275.00	1.65	265.45	1,274.69	20.12	-2.95	-20.15	1.69	0.56	-58.08	
1,300.00	1.86	259.57	1,299.68	20.02	-3.71	-20.05	1.11	0.84	-23.52	
1,325.00	1.86	259.41	1,324.66	19.87	-4.51	-19.91	0.02	0.00	-0.64	
1,350.00	1.78	260.45	1,349.65	19.74	-5.29	-19.78	0.35	-0.32	4.16	



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Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,375.00	1.85	258.78	1,374.64	19.59	-6.07	-19.65	0.35	0.28	-6.68
1,400.00	1.83	263.58	1,399.62	19.47	-6.86	-19.53	0.62	-0.08	19.20
1,425.00	1.78	260.57	1,424.61	19.36	-7.64	-19.43	0.43	-0.20	-12.04
1,450.00	1.81	258.01	1,449.60	19.22	-8.41	-19.29	0.34	0.12	-10.24
1,475.00	1.79	255.73	1,474.59	19.04	-9.17	-19.12	0.30	-0.08	-9.12
1,500.00	1.87	255.48	1,499.58	18.84	-9.95	-18.93	0.32	0.32	-1.00
1,525.00	1.87	254.80	1,524.56	18.63	-10.73	-18.73	0.09	0.00	-2.72
1,550.00	1.91	253.90	1,549.55	18.41	-11.53	-18.51	0.20	0.16	-3.60
1,575.00	1.87	253.23	1,574.53	18.17	-12.32	-18.28	0.18	-0.16	-2.68
1,600.00	1.87	254.96	1,599.52	17.95	-13.10	-18.07	0.23	0.00	6.92
1,625.00	1.86	254.34	1,624.51	17.73	-13.89	-17.86	0.09	-0.04	-2.48
1,650.00	1.74	252.63	1,649.50	17.51	-14.64	-17.64	0.53	-0.48	-6.84
1,675.00	1.87	252.98	1,674.48	17.28	-15.39	-17.42	0.52	0.52	1.40
1,700.00	1.85	252.15	1,699.47	17.04	-16.17	-17.18	0.13	-0.08	-3.32
1,725.00	1.84	252.61	1,724.46	16.79	-16.93	-16.95	0.07	-0.04	1.84
1,750.00	1.88	252.17	1,749.44	16.55	-17.71	-16.71	0.17	0.16	-1.76
1,775.00	1.87	253.48	1,774.43	16.31	-18.49	-16.47	0.18	-0.04	5.24
1,800.00	1.82	254.73	1,799.42	16.08	-19.26	-16.26	0.26	-0.20	5.00
1,825.00	1.80	249.89	1,824.41	15.85	-20.01	-16.03	0.62	-0.08	-19.36
1,850.00	1.88	251.85	1,849.39	15.58	-20.77	-15.77	0.41	0.32	7.84
1,875.00	1.89	252.91	1,874.38	15.33	-21.56	-15.53	0.15	0.04	4.24
1,900.00	1.91	252.59	1,899.37	15.09	-22.35	-15.29	0.09	0.08	-1.28
1,925.00	1.83	252.13	1,924.35	14.84	-23.13	-15.05	0.33	-0.32	-1.84
1,950.00	1.83	252.31	1,949.34	14.60	-23.89	-14.81	0.02	0.00	0.72
1,975.00	1.54	253.17	1,974.33	14.38	-24.59	-14.60	1.16	-1.16	3.44
2,000.00	1.17	257.92	1,999.32	14.23	-25.16	-14.46	1.55	-1.48	19.00
2,025.00	0.98	260.15	2,024.32	14.14	-25.62	-14.37	0.78	-0.76	8.92
2,050.00	0.96	259.73	2,049.31	14.06	-26.04	-14.30	0.08	-0.08	-1.68
2,075.00	0.97	264.13	2,074.31	14.00	-26.45	-14.24	0.30	0.04	17.60
2,100.00	0.96	259.77	2,099.31	13.95	-26.87	-14.19	0.30	-0.04	-17.44
2,125.00	1.01	259.04	2,124.30	13.87	-27.29	-14.11	0.21	0.20	-2.92
2,150.00	1.01	259.51	2,149.30	13.78	-27.72	-14.04	0.03	0.00	1.88
2,175.00	1.01	263.97	2,174.29	13.72	-28.16	-13.98	0.31	0.00	17.84
2,200.00	0.96	267.29	2,199.29	13.69	-28.59	-13.95	0.30	-0.20	13.28
2,225.00	0.91	263.85	2,224.29	13.66	-28.99	-13.92	0.30	-0.20	-13.76
2,250.00	0.89	252.23	2,249.28	13.58	-29.38	-13.84	0.73	-0.08	-46.48
2,275.00	0.90	239.08	2,274.28	13.42	-29.73	-13.69	0.82	0.04	-52.60
2,300.00	0.97	240.95	2,299.28	13.21	-30.08	-13.49	0.31	0.28	7.48
2,325.00	1.04	243.70	2,324.27	13.01	-30.47	-13.29	0.34	0.28	11.00
2,350.00	1.02	245.90	2,349.27	12.82	-30.88	-13.10	0.18	-0.08	8.80
2,375.00	0.91	248.18	2,374.27	12.65	-31.27	-12.94	0.47	-0.44	9.12
2,400.00	0.88	248.28	2,399.26	12.51	-31.63	-12.80	0.12	-0.12	0.40
2,425.00	0.91	244.07	2,424.26	12.35	-31.99	-12.64	0.29	0.12	-16.84



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Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
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Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,450.00	0.96	245.76	2,449.26	12.18	-32.36	-12.47	0.23	0.20	6.76	
2,475.00	0.95	242.21	2,474.25	12.00	-32.73	-12.29	0.24	-0.04	-14.20	
2,500.00	1.00	243.63	2,499.25	11.80	-33.11	-12.10	0.22	0.20	5.68	
2,525.00	0.99	242.80	2,524.25	11.61	-33.50	-11.91	0.07	-0.04	-3.32	
2,550.00	0.98	239.95	2,549.24	11.40	-33.87	-11.71	0.20	-0.04	-11.40	
2,575.00	0.91	245.78	2,574.24	11.21	-34.24	-11.52	0.48	-0.28	23.32	
2,600.00	0.99	250.07	2,599.24	11.06	-34.62	-11.37	0.43	0.32	17.16	
2,625.00	0.93	247.21	2,624.23	10.90	-35.01	-11.22	0.31	-0.24	-11.44	
2,650.00	0.83	250.46	2,649.23	10.77	-35.37	-11.09	0.45	-0.40	13.00	
2,675.00	0.83	241.32	2,674.23	10.62	-35.70	-10.94	0.53	0.00	-36.56	
2,700.00	0.81	242.30	2,699.22	10.45	-36.02	-10.78	0.10	-0.08	3.92	
2,725.00	0.84	238.64	2,724.22	10.27	-36.33	-10.60	0.24	0.12	-14.64	
2,750.00	0.76	243.22	2,749.22	10.10	-36.63	-10.43	0.41	-0.32	18.32	
2,775.00	0.73	248.31	2,774.22	9.97	-36.93	-10.30	0.29	-0.12	20.36	
2,800.00	0.70	245.90	2,799.22	9.85	-37.22	-10.18	0.17	-0.12	-9.64	
2,825.00	0.66	247.36	2,824.21	9.73	-37.49	-10.07	0.17	-0.16	5.84	
2,850.00	0.47	235.64	2,849.21	9.62	-37.71	-9.96	0.89	-0.76	-46.88	
2,875.00	0.44	238.66	2,874.21	9.51	-37.87	-9.85	0.15	-0.12	12.08	
2,900.00	0.50	238.58	2,899.21	9.40	-38.05	-9.75	0.24	0.24	-0.32	
2,925.00	0.48	240.82	2,924.21	9.29	-38.23	-9.64	0.11	-0.08	8.96	
2,950.00	0.44	235.31	2,949.21	9.19	-38.40	-9.54	0.24	-0.16	-22.04	
2,975.00	0.31	252.84	2,974.21	9.11	-38.55	-9.46	0.69	-0.52	70.12	
3,000.00	0.48	231.43	2,999.21	9.03	-38.69	-9.38	0.89	0.68	-85.64	
3,025.00	0.31	284.22	3,024.21	8.98	-38.84	-9.33	1.53	-0.68	211.16	
3,050.00	0.49	245.24	3,049.21	8.95	-39.00	-9.30	1.27	0.72	-155.92	
3,075.00	0.41	229.49	3,074.21	8.85	-39.17	-9.20	0.59	-0.32	-63.00	
3,100.00	0.62	233.00	3,099.20	8.71	-39.34	-9.07	0.85	0.84	14.04	
3,125.00	0.85	235.27	3,124.20	8.52	-39.60	-8.88	0.93	0.92	9.08	
3,150.00	1.23	233.71	3,149.20	8.26	-39.97	-8.62	1.52	1.52	-6.24	
3,175.00	1.14	233.61	3,174.19	7.95	-40.39	-8.32	0.36	-0.36	-0.40	
3,200.00	1.07	238.00	3,199.19	7.68	-40.79	-8.05	0.44	-0.28	17.56	
3,225.00	1.10	229.31	3,224.18	7.40	-41.17	-7.77	0.67	0.12	-34.76	
3,250.00	1.16	235.50	3,249.18	7.10	-41.56	-7.48	0.54	0.24	24.76	
3,275.00	1.20	232.69	3,274.17	6.80	-41.98	-7.18	0.28	0.16	-11.24	
3,300.00	1.14	235.17	3,299.17	6.50	-42.39	-6.88	0.31	-0.24	9.92	
3,325.00	0.99	236.16	3,324.16	6.23	-42.77	-6.62	0.60	-0.60	3.96	
3,350.00	1.13	228.32	3,349.16	5.95	-43.13	-6.34	0.81	0.56	-31.36	
3,375.00	1.15	232.23	3,374.16	5.63	-43.52	-6.03	0.32	0.08	15.64	
3,400.00	1.22	236.64	3,399.15	5.33	-43.94	-5.73	0.46	0.28	17.64	
3,425.00	1.11	237.04	3,424.14	5.05	-44.36	-5.46	0.44	-0.44	1.60	
3,450.00	1.16	236.98	3,449.14	4.78	-44.78	-5.19	0.20	0.20	-0.24	
3,475.00	1.27	243.29	3,474.13	4.52	-45.24	-4.93	0.69	0.44	25.24	
3,500.00	1.15	243.33	3,499.13	4.29	-45.71	-4.70	0.48	-0.48	0.16	
3,525.00	1.13	245.56	3,524.12	4.07	-46.16	-4.49	0.19	-0.08	8.92	



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,550.00	1.17	244.44	3,549.12	3.86	-46.61	-4.28	0.18	0.16	-4.48
3,575.00	1.20	249.30	3,574.11	3.66	-47.09	-4.08	0.42	0.12	19.44
3,600.00	1.24	244.76	3,599.11	3.45	-47.58	-3.88	0.42	0.16	-18.16
3,625.00	1.17	248.78	3,624.10	3.24	-48.06	-3.68	0.44	-0.28	16.08
3,650.00	1.17	247.74	3,649.10	3.05	-48.53	-3.49	0.08	0.00	-4.16
3,675.00	1.10	255.27	3,674.09	2.89	-49.00	-3.34	0.66	-0.28	30.12
3,700.00	1.16	257.38	3,699.09	2.78	-49.48	-3.23	0.29	0.24	8.44
3,725.00	1.12	259.67	3,724.08	2.68	-49.97	-3.13	0.24	-0.16	9.16
3,750.00	1.12	258.01	3,749.08	2.58	-50.45	-3.04	0.13	0.00	-6.64
3,775.00	1.14	254.78	3,774.07	2.47	-50.93	-2.93	0.27	0.08	-12.92
3,800.00	1.18	258.26	3,799.07	2.35	-51.42	-2.82	0.32	0.16	13.92
3,825.00	1.08	262.38	3,824.06	2.27	-51.91	-2.74	0.52	-0.40	16.48
3,850.00	1.25	258.96	3,849.06	2.18	-52.41	-2.66	0.73	0.68	-13.68
3,875.00	1.25	264.41	3,874.05	2.10	-52.95	-2.58	0.48	0.00	21.80
3,900.00	1.30	258.68	3,899.05	2.02	-53.49	-2.51	0.55	0.20	-22.92
3,925.00	1.37	263.25	3,924.04	1.93	-54.07	-2.42	0.51	0.28	18.28
3,950.00	1.26	260.31	3,949.03	1.85	-54.64	-2.35	0.52	-0.44	-11.76
3,975.00	1.30	257.17	3,974.03	1.74	-55.18	-2.24	0.32	0.16	-12.56
4,000.00	1.36	260.87	3,999.02	1.63	-55.75	-2.14	0.42	0.24	14.80
4,025.00	1.32	259.60	4,024.01	1.53	-56.33	-2.04	0.20	-0.16	-5.08
4,050.00	1.33	253.04	4,049.01	1.39	-56.89	-1.91	0.61	0.04	-26.24
4,075.00	1.37	248.35	4,074.00	1.20	-57.45	-1.72	0.47	0.16	-18.76
4,100.00	1.20	245.96	4,098.99	0.98	-57.96	-1.51	0.71	-0.68	-9.56
4,125.00	1.29	246.26	4,123.99	0.76	-58.46	-1.29	0.36	0.36	1.20
4,150.00	1.35	246.81	4,148.98	0.53	-58.99	-1.07	0.25	0.24	2.20
4,175.00	1.31	246.18	4,173.97	0.30	-59.52	-0.84	0.17	-0.16	-2.52
4,200.00	1.22	243.60	4,198.97	0.07	-60.02	-0.61	0.43	-0.36	-10.32
4,225.00	1.17	238.51	4,223.96	-0.18	-60.48	-0.37	0.47	-0.20	-20.36
4,250.00	0.86	243.90	4,248.96	-0.40	-60.86	-0.15	1.30	-1.24	21.56
4,275.00	0.79	242.72	4,273.95	-0.56	-61.18	0.01	0.29	-0.28	-4.72
4,300.00	0.59	233.99	4,298.95	-0.72	-61.44	0.16	0.90	-0.80	-34.92
4,325.00	0.58	215.73	4,323.95	-0.89	-61.62	0.33	0.74	-0.04	-73.04
4,350.00	0.55	197.21	4,348.95	-1.11	-61.73	0.55	0.74	-0.12	-74.08
4,375.00	0.53	187.32	4,373.95	-1.34	-61.78	0.78	0.38	-0.08	-39.56
4,400.00	0.69	188.28	4,398.95	-1.60	-61.82	1.04	0.64	0.64	3.84
4,425.00	0.57	189.90	4,423.95	-1.88	-61.86	1.31	0.49	-0.48	6.48
4,450.00	0.51	191.51	4,448.95	-2.11	-61.90	1.54	0.25	-0.24	6.44
4,475.00	0.70	192.05	4,473.94	-2.37	-61.96	1.80	0.76	0.76	2.16
4,500.00	0.84	204.99	4,498.94	-2.68	-62.07	2.12	0.89	0.56	51.76
4,525.00	1.26	232.20	4,523.94	-3.02	-62.36	2.45	2.56	1.68	108.84
4,550.00	1.35	231.17	4,548.93	-3.37	-62.81	2.80	0.37	0.36	-4.12
4,575.00	1.23	230.51	4,573.92	-3.72	-63.24	3.15	0.48	-0.48	-2.64
4,600.00	1.35	228.66	4,598.92	-4.09	-63.67	3.51	0.51	0.48	-7.40



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

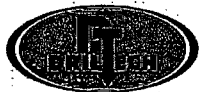
Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,625.00	1.30	227.28	4,623.91	-4.48	-64.10	3.89	0.24	-0.20	-5.52
4,650.00	1.31	225.33	4,648.91	-4.87	-64.51	4.28	0.18	0.04	-7.80
4,675.00	1.00	211.56	4,673.90	-5.26	-64.83	4.67	1.66	-1.24	-55.08
4,700.00	0.94	198.91	4,698.90	-5.64	-65.01	5.05	0.89	-0.24	-50.60
4,725.00	0.96	189.83	4,723.89	-6.04	-65.11	5.44	0.61	0.08	-36.32
4,750.00	0.99	184.80	4,748.89	-6.46	-65.17	5.87	0.36	0.12	-20.12
4,775.00	1.05	183.94	4,773.89	-6.90	-65.20	6.31	0.25	0.24	-3.44
4,800.00	1.07	184.89	4,798.88	-7.36	-65.24	6.77	0.11	0.08	3.80
4,825.00	1.00	189.96	4,823.88	-7.81	-65.29	7.22	0.46	-0.28	20.28
4,850.00	1.03	184.51	4,848.87	-8.25	-65.35	7.66	0.40	0.12	-21.80
4,875.00	1.03	191.92	4,873.87	-8.69	-65.41	8.10	0.53	0.00	29.64
4,900.00	1.32	200.83	4,898.86	-9.18	-65.56	8.59	1.37	1.16	35.64
4,925.00	1.41	202.92	4,923.86	-9.73	-65.78	9.14	0.41	0.36	8.36
4,950.00	1.34	203.28	4,948.85	-10.29	-66.02	9.69	0.28	-0.28	1.44
4,975.00	1.36	201.44	4,973.84	-10.83	-66.24	10.23	0.19	0.08	-7.36
5,000.00	1.32	201.79	4,998.84	-11.37	-66.46	10.77	0.16	-0.16	1.40
5,025.00	1.35	205.79	5,023.83	-11.91	-66.69	11.30	0.39	0.12	16.00
5,050.00	1.46	206.97	5,048.82	-12.46	-66.97	11.85	0.45	0.44	4.72
5,075.00	1.42	214.30	5,073.81	-13.00	-67.29	12.38	0.75	-0.16	29.32
5,100.00	1.59	227.90	5,098.81	-13.48	-67.72	12.87	1.58	0.68	54.40
5,125.00	1.49	235.92	5,123.80	-13.90	-68.24	13.28	0.95	-0.40	32.08
5,150.00	1.52	238.52	5,148.79	-14.25	-68.80	13.63	0.30	0.12	10.40
5,175.00	1.61	245.24	5,173.78	-14.57	-69.40	13.94	0.82	0.36	26.88
5,200.00	1.61	255.54	5,198.77	-14.81	-70.06	14.17	1.16	0.00	41.20
5,225.00	1.56	251.19	5,223.76	-15.01	-70.72	14.36	0.52	-0.20	-17.40
5,250.00	1.65	255.52	5,248.75	-15.21	-71.39	14.56	0.60	0.36	17.32
5,275.00	1.70	251.06	5,273.74	-15.42	-72.09	14.76	0.56	0.20	-17.84
5,300.00	1.63	252.87	5,298.73	-15.64	-72.78	14.98	0.35	-0.28	7.24
5,325.00	1.65	254.12	5,323.72	-15.84	-73.46	15.18	0.16	0.08	5.00
5,350.00	1.65	252.18	5,348.71	-16.05	-74.15	15.38	0.22	0.00	-7.76
5,375.00	1.77	252.23	5,373.70	-16.28	-74.86	15.60	0.48	0.48	0.20
5,400.00	1.69	255.73	5,398.68	-16.49	-75.59	15.80	0.53	-0.32	14.00
5,425.00	1.75	256.30	5,423.67	-16.67	-76.32	15.98	0.25	0.24	2.28
5,450.00	1.78	255.39	5,448.66	-16.86	-77.06	16.16	0.16	0.12	-3.64
5,475.00	1.71	255.24	5,473.65	-17.05	-77.80	16.35	0.28	-0.28	-0.60
5,500.00	1.71	254.62	5,498.64	-17.25	-78.52	16.53	0.07	0.00	-2.48
5,525.00	1.70	252.20	5,523.63	-17.46	-79.23	16.74	0.29	-0.04	-9.68
5,550.00	1.57	252.95	5,548.62	-17.67	-79.91	16.95	0.53	-0.52	3.00
5,575.00	1.64	251.86	5,573.61	-17.88	-80.58	17.15	0.31	0.28	-4.36
5,600.00	1.69	254.06	5,598.60	-18.10	-81.28	17.36	0.32	0.20	8.80
5,625.00	1.73	253.22	5,623.59	-18.31	-81.99	17.56	0.19	0.16	-3.36
5,650.00	1.69	253.78	5,648.58	-18.52	-82.71	17.77	0.17	-0.16	2.24
5,675.00	1.69	250.29	5,673.56	-18.75	-83.41	17.99	0.41	0.00	-13.96



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,700.00	1.75	252.09	5,698.55	-18.99	-84.12	18.22	0.32	0.24	7.20
5,725.00	1.82	250.93	5,723.54	-19.24	-84.86	18.46	0.32	0.28	-4.64
5,750.00	1.77	254.20	5,748.53	-19.47	-85.60	18.69	0.46	-0.20	13.08
5,775.00	1.62	255.48	5,773.52	-19.66	-86.32	18.88	0.62	-0.60	5.12
5,800.00	1.78	250.36	5,798.51	-19.88	-87.02	19.09	0.88	0.64	-20.48
5,825.00	1.88	253.02	5,823.49	-20.13	-87.78	19.34	0.52	0.40	10.64
5,850.00	1.82	253.99	5,848.48	-20.36	-88.56	19.56	0.27	-0.24	3.88
5,875.00	1.73	252.95	5,873.47	-20.58	-89.30	19.77	0.38	-0.36	-4.16
5,900.00	1.81	250.92	5,898.46	-20.82	-90.03	20.00	0.41	0.32	-8.12
5,925.00	1.84	252.66	5,923.44	-21.07	-90.79	20.25	0.25	0.12	6.96
5,950.00	1.89	254.32	5,948.43	-21.30	-91.57	20.47	0.29	0.20	6.64
5,975.00	1.76	254.38	5,973.42	-21.52	-92.34	20.68	0.52	-0.52	0.24
6,000.00	1.73	250.96	5,998.41	-21.74	-93.06	20.90	0.43	-0.12	-13.68
6,025.00	1.72	254.70	6,023.40	-21.97	-93.78	21.11	0.45	-0.04	14.96
6,050.00	1.75	253.43	6,048.38	-22.17	-94.51	21.31	0.20	0.12	-5.08
6,075.00	1.81	251.63	6,073.37	-22.41	-95.25	21.54	0.33	0.24	-7.20
6,100.00	1.81	250.68	6,098.36	-22.66	-96.00	21.79	0.12	0.00	-3.80
6,125.00	1.54	248.23	6,123.35	-22.92	-96.68	22.04	1.12	-1.08	-9.80
6,150.00	1.39	247.51	6,148.34	-23.16	-97.27	22.27	0.60	-0.60	-2.88
6,175.00	1.30	247.24	6,173.33	-23.38	-97.81	22.49	0.36	-0.36	-1.08
6,200.00	1.24	245.11	6,198.33	-23.61	-98.32	22.71	0.31	-0.24	-8.52
6,225.00	1.22	244.00	6,223.32	-23.84	-98.81	22.94	0.12	-0.08	-4.44
6,250.00	1.20	243.47	6,248.32	-24.07	-99.28	23.17	0.09	-0.08	-2.12
6,275.00	1.20	249.30	6,273.31	-24.28	-99.76	23.37	0.49	0.00	23.32
6,300.00	1.17	247.15	6,298.31	-24.47	-100.24	23.56	0.21	-0.12	-8.60
6,325.00	1.23	242.62	6,323.30	-24.69	-100.71	23.78	0.45	0.24	-18.12
6,350.00	1.18	247.92	6,348.29	-24.91	-101.19	24.00	0.49	-0.20	21.20
6,375.00	1.19	249.34	6,373.29	-25.10	-101.67	24.18	0.12	0.04	5.68
6,400.00	1.10	244.31	6,398.28	-25.30	-102.13	24.37	0.54	-0.36	-20.12
6,425.00	1.22	246.84	6,423.28	-25.51	-102.59	24.57	0.52	0.48	10.12
6,450.00	1.23	248.92	6,448.27	-25.71	-103.09	24.77	0.18	0.04	8.32
6,475.00	1.28	245.93	6,473.27	-25.92	-103.59	24.98	0.33	0.20	-11.96
6,500.00	1.25	248.15	6,498.26	-26.13	-104.10	25.19	0.23	-0.12	8.88
6,525.00	1.27	249.43	6,523.26	-26.33	-104.61	25.38	0.14	0.08	5.12
6,550.00	1.26	246.52	6,548.25	-26.54	-105.12	25.58	0.26	-0.04	-11.64
6,575.00	1.20	244.88	6,573.24	-26.76	-105.61	25.80	0.28	-0.24	-6.56
6,600.00	1.27	243.15	6,598.24	-27.00	-106.10	26.03	0.32	0.28	-6.92
6,625.00	1.28	241.43	6,623.23	-27.26	-106.59	26.29	0.16	0.04	-6.88
6,650.00	1.36	244.12	6,648.22	-27.52	-107.10	26.55	0.40	0.32	10.76
6,675.00	1.31	245.34	6,673.22	-27.77	-107.63	26.79	0.23	-0.20	4.88
6,700.00	1.30	243.59	6,698.21	-28.01	-108.14	27.03	0.16	-0.04	-7.00
6,725.00	1.25	245.72	6,723.21	-28.25	-108.64	27.26	0.28	-0.20	8.52
6,750.00	1.22	248.87	6,748.20	-28.46	-109.14	27.47	0.30	-0.12	12.60
6,775.00	1.20	247.22	6,773.19	-28.66	-109.63	27.66	0.16	-0.08	-6.60



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,800.00	1.25	242.98	6,798.19	-28.88	-110.11	27.88	0.41	0.20	-16.96
6,825.00	1.31	241.64	6,823.18	-29.14	-110.61	28.14	0.27	0.24	-5.36
6,850.00	1.29	241.42	6,848.18	-29.41	-111.11	28.40	0.08	-0.08	-0.88
6,875.00	1.31	242.53	6,873.17	-29.68	-111.61	28.66	0.13	0.08	-4.44
6,900.00	1.26	247.77	6,898.16	-29.91	-112.12	28.89	0.51	-0.20	20.96
6,925.00	1.28	242.10	6,923.16	-30.15	-112.62	29.12	0.51	0.08	-22.68
6,950.00	1.29	242.99	6,948.15	-30.41	-113.11	29.38	0.09	0.04	3.56
6,975.00	1.35	244.26	6,973.14	-30.66	-113.63	29.63	0.27	0.24	5.08
7,000.00	1.41	244.13	6,998.14	-30.92	-114.17	29.89	0.24	0.24	-0.52
7,025.00	1.44	243.27	7,023.13	-31.20	-114.73	30.16	0.15	0.12	-3.44
7,050.00	1.36	244.38	7,048.12	-31.47	-115.28	30.42	0.34	-0.32	4.44
7,075.00	1.46	240.09	7,073.11	-31.76	-115.82	30.70	0.58	0.40	-17.16
7,100.00	1.31	245.34	7,098.11	-32.03	-116.36	30.98	0.79	-0.60	21.00
7,125.00	1.46	242.92	7,123.10	-32.30	-116.90	31.24	0.64	0.60	-9.68
7,150.00	1.34	241.54	7,148.09	-32.58	-117.44	31.52	0.50	-0.48	-5.52
7,175.00	1.35	245.26	7,173.08	-32.85	-117.97	31.77	0.35	0.04	14.88
7,200.00	1.36	246.16	7,198.08	-33.09	-118.50	32.01	0.09	0.04	3.60
7,225.00	1.31	244.42	7,223.07	-33.33	-119.03	32.25	0.26	-0.20	-6.96
7,250.00	1.27	241.17	7,248.06	-33.59	-119.53	32.50	0.33	-0.16	-13.00
7,275.00	1.37	249.22	7,273.06	-33.83	-120.06	32.74	0.84	0.40	32.20
7,300.00	1.23	250.77	7,298.05	-34.02	-120.59	32.93	0.58	-0.56	6.20
7,325.00	1.21	248.89	7,323.05	-34.21	-121.09	33.11	0.18	-0.08	-7.52
7,350.00	1.21	251.57	7,348.04	-34.39	-121.59	33.28	0.23	0.00	10.72
7,375.00	1.20	252.15	7,373.03	-34.55	-122.08	33.44	0.06	-0.04	2.32
7,400.00	1.10	250.07	7,398.03	-34.71	-122.56	33.60	0.43	-0.40	-8.32
7,425.00	1.13	249.64	7,423.03	-34.88	-123.02	33.76	0.12	0.12	-1.72
7,450.00	1.01	250.62	7,448.02	-35.04	-123.46	33.92	0.49	-0.48	3.92
7,475.00	1.02	248.42	7,473.02	-35.19	-123.87	34.07	0.16	0.04	-8.80
7,500.00	0.93	256.35	7,498.01	-35.32	-124.27	34.19	0.65	-0.36	31.72
7,525.00	1.01	251.67	7,523.01	-35.44	-124.68	34.31	0.45	0.32	-18.72
7,550.00	0.90	251.07	7,548.01	-35.57	-125.08	34.44	0.44	-0.44	-2.40
7,575.00	0.90	249.38	7,573.00	-35.71	-125.44	34.57	0.11	0.00	-6.76
7,600.00	1.02	252.25	7,598.00	-35.84	-125.84	34.70	0.52	0.48	11.48
7,625.00	0.78	253.73	7,623.00	-35.96	-126.22	34.81	0.96	-0.96	5.92
7,650.00	0.86	255.87	7,647.99	-36.05	-126.56	34.90	0.34	0.32	8.56
7,675.00	0.76	260.64	7,672.99	-36.12	-126.91	34.97	0.48	-0.40	19.08
7,700.00	0.78	271.90	7,697.99	-36.15	-127.24	34.99	0.61	0.08	45.04
7,725.00	0.73	273.62	7,722.99	-36.13	-127.57	34.97	0.22	-0.20	6.88
7,750.00	0.73	266.25	7,747.98	-36.13	-127.89	34.97	0.38	0.00	-29.48
7,775.00	0.82	269.78	7,772.98	-36.14	-128.22	34.98	0.41	0.36	14.12
7,800.00	0.76	271.84	7,797.98	-36.14	-128.57	34.97	0.27	-0.24	8.24
7,825.00	0.76	263.28	7,822.98	-36.15	-128.90	34.98	0.45	0.00	-34.24
7,850.00	0.71	272.14	7,847.98	-36.16	-129.22	34.99	0.50	-0.20	35.44



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,875.00	0.69	264.65	7,872.97	-36.17	-129.52	35.00	0.37	-0.08	-29.96
7,900.00	0.63	271.29	7,897.97	-36.18	-129.81	35.00	0.39	-0.24	26.56
7,925.00	0.71	262.35	7,922.97	-36.20	-130.10	35.02	0.53	0.32	-35.76
7,950.00	0.73	264.42	7,947.97	-36.24	-130.41	35.05	0.13	0.08	8.28
7,975.00	0.65	268.20	7,972.97	-36.26	-130.71	35.07	0.37	-0.32	15.12
8,000.00	0.69	270.85	7,997.97	-36.26	-131.01	35.07	0.20	0.16	10.60
8,025.00	0.63	278.88	8,022.96	-36.24	-131.29	35.04	0.44	-0.24	32.12
8,050.00	0.73	265.87	8,047.96	-36.23	-131.59	35.03	0.73	0.40	-52.04
8,075.00	0.63	271.63	8,072.96	-36.23	-131.88	35.03	0.48	-0.40	23.04
8,100.00	0.51	265.28	8,097.96	-36.24	-132.13	35.04	0.54	-0.48	-25.40
8,125.00	0.57	263.86	8,122.96	-36.26	-132.37	35.06	0.25	0.24	-5.68
8,150.00	0.65	267.93	8,147.96	-36.28	-132.63	35.07	0.36	0.32	16.28
8,175.00	0.67	268.12	8,172.95	-36.29	-132.92	35.08	0.08	0.08	0.76
8,200.00	0.54	275.90	8,197.95	-36.28	-133.18	35.07	0.61	-0.52	31.12
8,225.00	0.55	268.22	8,222.95	-36.27	-133.42	35.06	0.29	0.04	-30.72
8,250.00	0.55	267.45	8,247.95	-36.28	-133.66	35.07	0.03	0.00	-3.08
8,275.00	0.45	276.76	8,272.95	-36.28	-133.88	35.06	0.51	-0.40	37.24
8,300.00	0.27	270.70	8,297.95	-36.26	-134.03	35.05	0.73	-0.72	-24.24
8,325.00	0.33	264.74	8,322.95	-36.27	-134.16	35.05	0.27	0.24	-23.84
8,350.00	0.32	271.19	8,347.95	-36.28	-134.31	35.05	0.15	-0.04	25.80
8,375.00	0.22	266.70	8,372.95	-36.28	-134.42	35.06	0.41	-0.40	-17.96
8,400.00	0.21	248.90	8,397.95	-36.30	-134.51	35.07	0.27	-0.04	-71.20
8,425.00	0.12	269.40	8,422.95	-36.31	-134.58	35.09	0.43	-0.36	82.00
8,450.00	0.12	287.84	8,447.95	-36.30	-134.63	35.08	0.15	0.00	73.76
8,475.00	0.07	221.53	8,472.95	-36.31	-134.67	35.08	0.45	-0.20	-265.24
8,500.00	0.10	183.70	8,497.95	-36.34	-134.68	35.12	0.25	0.12	-151.32
8,525.00	0.13	197.50	8,522.95	-36.39	-134.69	35.17	0.16	0.12	55.20
8,550.00	0.13	203.63	8,547.95	-36.44	-134.71	35.22	0.06	0.00	24.52
8,575.00	0.08	180.25	8,572.95	-36.49	-134.72	35.26	0.26	-0.20	-93.52
8,600.00	0.14	166.06	8,597.95	-36.53	-134.71	35.31	0.26	0.24	-56.76
8,625.00	0.10	207.58	8,622.95	-36.58	-134.72	35.36	0.37	-0.16	166.08
8,650.00	0.10	222.38	8,647.95	-36.62	-134.74	35.39	0.10	0.00	59.20
8,675.00	0.23	210.55	8,672.95	-36.68	-134.78	35.45	0.53	0.52	-47.32
8,700.00	0.28	187.75	8,697.95	-36.78	-134.82	35.56	0.45	0.20	-91.20
8,725.00	0.33	199.75	8,722.95	-36.91	-134.85	35.68	0.32	0.20	48.00
8,750.00	0.34	199.85	8,747.95	-37.05	-134.90	35.82	0.04	0.04	0.40
8,775.00	0.39	211.49	8,772.95	-37.19	-134.97	35.96	0.36	0.20	46.56
8,800.00	0.42	207.61	8,797.95	-37.34	-135.05	36.12	0.16	0.12	-15.52
8,825.00	0.36	190.85	8,822.95	-37.50	-135.11	36.27	0.51	-0.24	-67.04
8,850.00	0.39	198.43	8,847.94	-37.66	-135.15	36.43	0.23	0.12	30.32
8,875.00	0.44	198.44	8,872.94	-37.83	-135.21	36.60	0.20	0.20	0.04
8,900.00	0.42	198.63	8,897.94	-38.01	-135.27	36.78	0.08	-0.08	0.76
8,925.00	0.44	190.92	8,922.94	-38.19	-135.32	36.96	0.24	0.08	-30.84



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

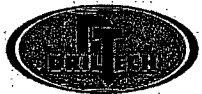
Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,950.00	0.44	178.74	8,947.94	-38.38	-135.33	37.15	0.37	0.00	-48.72	
8,975.00	0.56	178.34	8,972.94	-38.60	-135.33	37.37	0.48	0.48	-1.60	
9,000.00	0.64	179.69	8,997.94	-38.86	-135.32	37.63	0.32	0.32	5.40	
9,025.00	0.71	164.83	9,022.94	-39.15	-135.28	37.92	0.75	0.28	-59.44	
9,050.00	0.77	162.21	9,047.94	-39.46	-135.19	38.23	0.28	0.24	-10.48	
9,075.00	0.66	160.03	9,072.93	-39.75	-135.09	38.53	0.45	-0.44	-8.72	
9,100.00	0.61	167.35	9,097.93	-40.02	-135.01	38.79	0.38	-0.20	29.28	
9,125.00	0.72	163.37	9,122.93	-40.30	-134.94	39.07	0.48	0.44	-15.92	
9,150.00	0.76	161.77	9,147.93	-40.61	-134.84	39.38	0.18	0.16	-6.40	
9,175.00	0.82	158.85	9,172.93	-40.93	-134.73	39.71	0.29	0.24	-11.68	
9,200.00	0.94	167.93	9,197.92	-41.30	-134.62	40.08	0.73	0.48	36.32	
9,225.00	1.03	169.61	9,222.92	-41.72	-134.53	40.50	0.38	0.36	6.72	
9,250.00	1.16	175.14	9,247.91	-42.19	-134.47	40.97	0.67	0.52	22.12	
9,275.00	1.16	174.86	9,272.91	-42.70	-134.43	41.48	0.02	0.00	-1.12	
9,300.00	1.15	173.74	9,297.90	-43.20	-134.38	41.98	0.10	-0.04	-4.48	
9,325.00	1.18	172.05	9,322.90	-43.70	-134.32	42.48	0.18	0.12	-6.76	
9,350.00	1.22	173.81	9,347.89	-44.22	-134.25	43.00	0.22	0.16	7.04	
9,375.00	1.17	176.27	9,372.89	-44.74	-134.21	43.52	0.29	-0.20	9.84	
9,400.00	1.20	173.32	9,397.88	-45.26	-134.16	44.04	0.27	0.12	-11.80	
9,425.00	1.19	174.70	9,422.88	-45.78	-134.10	44.56	0.12	-0.04	5.52	
9,450.00	1.15	172.47	9,447.87	-46.28	-134.05	45.06	0.24	-0.16	-8.92	
9,475.00	1.28	179.94	9,472.87	-46.81	-134.01	45.59	0.82	0.52	29.88	
9,500.00	1.13	181.83	9,497.86	-47.34	-134.02	46.12	0.62	-0.60	7.56	
9,525.00	1.05	183.28	9,522.86	-47.81	-134.04	46.59	0.34	-0.32	5.80	
9,550.00	1.04	186.72	9,547.85	-48.27	-134.08	47.05	0.25	-0.04	13.76	
9,575.00	0.99	189.19	9,572.85	-48.70	-134.14	47.48	0.27	-0.20	9.88	
9,600.00	0.99	194.92	9,597.85	-49.13	-134.23	47.91	0.40	0.00	22.92	
9,625.00	0.90	196.79	9,622.84	-49.52	-134.35	48.30	0.38	-0.36	7.48	
9,650.00	0.99	208.03	9,647.84	-49.90	-134.50	48.68	0.82	0.36	44.96	
9,675.00	0.92	215.22	9,672.83	-50.26	-134.72	49.03	0.55	-0.28	28.76	
9,700.00	1.09	216.90	9,697.83	-50.61	-134.98	49.38	0.69	0.68	6.72	
9,725.00	1.15	215.65	9,722.83	-51.00	-135.27	49.77	0.26	0.24	-5.00	
9,750.00	1.17	215.70	9,747.82	-51.42	-135.56	50.18	0.08	0.08	0.20	
9,775.00	1.17	217.06	9,772.82	-51.83	-135.87	50.59	0.11	0.00	5.44	
9,800.00	1.07	221.93	9,797.81	-52.20	-136.18	50.97	0.55	-0.40	19.48	
9,825.00	1.20	222.45	9,822.81	-52.57	-136.51	51.33	0.52	0.52	2.08	
9,850.00	1.27	223.23	9,847.80	-52.97	-136.88	51.72	0.29	0.28	3.12	
9,875.00	1.29	224.41	9,872.79	-53.37	-137.26	52.12	0.13	0.08	4.72	
9,900.00	1.23	222.02	9,897.79	-53.77	-137.64	52.52	0.32	-0.24	-9.56	
9,925.00	1.25	218.96	9,922.78	-54.18	-137.99	52.93	0.28	0.08	-12.24	
9,950.00	1.28	226.04	9,947.78	-54.59	-138.36	53.33	0.64	0.12	28.32	
9,975.00	1.31	222.37	9,972.77	-54.99	-138.76	53.73	0.35	0.12	-14.68	
10,000.00	1.27	223.52	9,997.76	-55.40	-139.14	54.14	0.19	-0.16	4.60	
10,025.00	1.29	223.95	10,022.76	-55.81	-139.53	54.54	0.09	0.08	1.72	



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,050.00	1.34	223.48	10,047.75	-56.22	-139.92	54.95	0.20	0.20	-1.88
10,075.00	1.32	221.63	10,072.74	-56.65	-140.31	55.37	0.19	-0.08	-7.40
10,100.00	1.24	222.24	10,097.74	-57.06	-140.69	55.78	0.32	-0.32	2.44
10,125.00	1.25	217.23	10,122.73	-57.48	-141.03	56.20	0.44	0.04	-20.04
10,150.00	1.35	221.79	10,147.73	-57.92	-141.40	56.63	0.58	0.40	18.24
10,175.00	1.30	213.97	10,172.72	-58.37	-141.75	57.08	0.75	-0.20	-31.28
10,200.00	1.27	213.79	10,197.71	-58.84	-142.06	57.55	0.12	-0.12	-0.72
10,225.00	1.46	208.83	10,222.71	-59.35	-142.37	58.05	0.89	0.76	-19.84
10,250.00	1.54	204.85	10,247.70	-59.93	-142.67	58.63	0.53	0.32	-15.92
10,275.00	1.61	207.77	10,272.69	-60.55	-142.97	59.25	0.43	0.28	11.68
10,300.00	1.65	203.52	10,297.68	-61.19	-143.28	59.88	0.51	0.16	-17.00
10,325.00	1.71	200.59	10,322.67	-61.87	-143.55	60.56	0.42	0.24	-11.72
10,350.00	1.81	197.76	10,347.65	-62.59	-143.80	61.28	0.53	0.40	-11.32
10,375.00	1.79	193.44	10,372.64	-63.35	-144.01	62.04	0.55	-0.08	-17.28
10,400.00	1.95	199.32	10,397.63	-64.13	-144.25	62.82	1.00	0.64	23.52
10,425.00	1.99	194.05	10,422.61	-64.95	-144.49	63.64	0.74	0.16	-21.08
10,450.00	1.91	197.94	10,447.60	-65.77	-144.73	64.45	0.62	-0.32	15.56
10,475.00	2.04	195.44	10,472.58	-66.59	-144.97	65.28	0.62	0.52	-10.00
10,500.00	2.15	194.46	10,497.57	-67.48	-145.21	66.16	0.46	0.44	-3.92
10,525.00	2.28	191.53	10,522.55	-68.42	-145.42	67.10	0.69	0.52	-11.72
10,550.00	2.35	188.58	10,547.53	-69.41	-145.60	68.09	0.55	0.28	-11.80
10,575.00	2.45	187.08	10,572.51	-70.45	-145.74	69.12	0.47	0.40	-6.00
10,600.00	2.58	184.32	10,597.48	-71.54	-145.85	70.21	0.71	0.52	-11.04
10,625.00	2.77	182.58	10,622.46	-72.71	-145.92	71.38	0.83	0.76	-6.96
10,650.00	2.81	178.63	10,647.43	-73.92	-145.93	72.59	0.79	0.16	-15.80
10,675.00	2.82	182.96	10,672.40	-75.15	-145.95	73.82	0.85	0.04	17.32
10,700.00	2.83	179.75	10,697.37	-76.38	-145.98	75.05	0.63	0.04	-12.84
10,725.00	2.92	182.01	10,722.33	-77.63	-146.00	76.31	0.58	0.36	9.04
10,750.00	2.99	181.97	10,747.30	-78.92	-146.04	77.59	0.28	0.28	-0.16
10,775.00	3.10	184.06	10,772.27	-80.25	-146.11	78.92	0.63	0.44	8.36
10,800.00	2.92	188.36	10,797.23	-81.55	-146.25	80.22	1.15	-0.72	17.20
10,825.00	2.98	192.99	10,822.20	-82.81	-146.49	81.48	0.98	0.24	18.52
10,850.00	2.85	200.79	10,847.17	-84.03	-146.86	82.69	1.67	-0.52	31.20
10,875.00	2.76	204.11	10,872.14	-85.16	-147.33	83.82	0.74	-0.36	13.28
10,900.00	2.75	206.80	10,897.11	-86.24	-147.84	84.90	0.52	-0.04	10.76
10,925.00	2.82	204.81	10,922.08	-87.34	-148.37	85.99	0.48	0.28	-7.96
10,950.00	2.91	206.49	10,947.05	-88.46	-148.91	87.11	0.49	0.36	6.72
10,975.00	2.89	208.56	10,972.01	-89.59	-149.50	88.22	0.43	-0.08	8.28
11,000.00	2.92	206.79	10,996.98	-90.71	-150.08	89.34	0.38	0.12	-7.08
11,025.00	2.84	213.45	11,021.95	-91.79	-150.71	90.42	1.38	-0.32	26.64
11,050.00	2.72	220.72	11,046.92	-92.76	-151.44	91.38	1.49	-0.48	29.08
11,075.00	2.58	224.05	11,071.89	-93.61	-152.22	92.23	0.83	-0.56	13.32
11,100.00	2.59	226.29	11,096.87	-94.41	-153.02	93.01	0.41	0.04	8.96



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)
11,125.00	2.67	228.83	11,121.84	-95.18	-153.87	93.78	0.57	0.32	10.16
11,150.00	2.70	226.86	11,146.82	-95.97	-154.73	94.56	0.39	0.12	-7.88
11,175.00	2.77	230.79	11,171.79	-96.75	-155.63	95.34	0.80	0.28	15.72
11,200.00	2.43	232.13	11,196.76	-97.46	-156.52	96.03	1.38	-1.36	5.36
11,225.00	2.38	232.02	11,221.74	-98.10	-157.35	96.67	0.20	-0.20	-0.44
11,250.00	2.20	235.03	11,246.72	-98.70	-158.15	97.26	0.87	-0.72	12.04
11,275.00	1.88	240.02	11,271.70	-99.18	-158.90	97.73	1.46	-1.28	19.96
11,300.00	1.73	243.78	11,296.69	-99.55	-159.59	98.10	0.76	-0.60	15.04
11,325.00	1.72	250.35	11,321.68	-99.84	-160.28	98.38	0.79	-0.04	26.28
11,350.00	1.78	255.64	11,346.67	-100.07	-161.01	98.60	0.69	0.24	21.16
11,375.00	1.78	260.04	11,371.66	-100.23	-161.77	98.76	0.55	0.00	17.60
11,400.00	1.94	264.99	11,396.64	-100.33	-162.57	98.85	0.91	0.64	19.80
11,412.00	2.15	262.36	11,408.64	-100.38	-163.00	98.90	1.92	1.75	-21.92
11412"MD: Final Gyro Survey - 11412"MD: Tie into SDI Gyro									
11,455.00	1.93	264.32	11,451.61	-100.56	-164.52	99.06	0.54	-0.51	4.56
11455"MD: Begin DrillTech MWD									
11,519.00	2.02	262.65	11,515.57	-100.81	-166.71	99.29	0.17	0.14	-2.61
11,613.00	1.93	263.00	11,609.51	-101.22	-169.92	99.67	0.10	-0.10	0.37
11,642.00	1.93	260.89	11,638.50	-101.35	-170.89	99.80	0.25	0.00	-7.28
11,812.00	1.98	254.75	11,808.40	-102.58	-176.55	100.97	0.13	0.03	-3.61
11,907.00	2.05	244.00	11,903.34	-103.75	-179.66	102.12	0.40	0.07	-11.32
11,950.00	2.75	228.44	11,946.30	-104.78	-181.13	103.13	2.21	1.63	-36.19
11,982.17	5.15	218.20	11,978.39	-106.42	-182.60	104.76	7.75	7.47	-31.82
11982"MD 330' Crossing FNL									
12,001.00	6.59	215.71	11,997.13	-107.96	-183.75	106.29	7.75	7.64	-13.24
12,048.00	13.45	208.02	12,043.38	-114.99	-187.90	113.28	14.84	14.60	-16.36
12,095.00	19.04	209.10	12,088.49	-126.52	-194.20	124.75	11.91	11.89	2.30
12,142.00	22.67	207.86	12,132.40	-141.23	-202.16	139.39	7.78	7.72	-2.64
12,190.00	26.77	205.44	12,176.00	-159.18	-211.13	157.26	8.80	8.54	-5.04
12,237.00	30.52	204.28	12,217.24	-179.63	-220.59	177.62	8.07	7.98	-2.47
12,285.00	30.26	207.53	12,258.64	-201.46	-231.19	199.36	3.47	-0.54	6.77
12,332.00	33.69	205.47	12,298.51	-223.74	-242.28	221.53	7.66	7.30	-4.38
12,380.00	37.50	204.14	12,337.53	-249.10	-253.98	246.78	8.10	7.94	-2.77
12,427.00	40.76	202.86	12,373.99	-276.30	-265.79	273.88	7.15	6.94	-2.72
12,475.00	44.03	199.15	12,409.44	-306.51	-277.36	303.98	8.57	6.81	-7.73
12,522.00	47.16	194.43	12,442.33	-338.64	-287.02	336.03	9.79	6.66	-10.04
12,569.00	51.43	194.82	12,472.97	-373.11	-296.01	370.41	9.11	9.09	0.83
12,616.00	54.91	195.30	12,501.14	-409.43	-305.79	406.64	7.45	7.40	1.02
12,663.00	59.80	196.11	12,526.49	-447.52	-316.51	444.62	10.50	10.40	1.72
12,710.00	64.22	196.62	12,548.54	-487.33	-328.20	484.33	9.45	9.40	1.09
12,758.00	68.14	196.67	12,567.92	-529.39	-340.78	526.27	8.17	8.17	0.10
12,805.00	72.31	197.86	12,583.82	-571.61	-353.91	568.38	9.19	8.87	2.53
12,851.00	75.15	196.48	12,596.71	-613.80	-366.94	610.44	6.81	6.17	-3.00
12,898.00	79.46	193.42	12,607.04	-658.08	-378.75	654.62	11.15	9.17	-6.51



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well-White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,945.00	81.37	190.99	12,614.86	-703.37	-388.54	699.82	6.52	4.06	-5.17
12,992.00	85.04	187.74	12,620.43	-749.41	-396.13	745.78	10.40	7.81	-6.91
13,040.00	87.80	186.02	12,623.42	-796.96	-401.87	793.28	6.77	5.75	-3.58
13,087.00	89.55	184.52	12,624.51	-843.75	-406.18	840.03	4.90	3.72	-3.19
13,134.00	89.57	183.23	12,624.87	-890.64	-409.36	886.89	2.74	0.04	-2.74
13,228.00	91.02	181.73	12,624.39	-984.54	-413.43	980.75	2.22	1.54	-1.60
13,279.00	91.00	181.45	12,623.49	-1,035.52	-414.84	1,031.71	0.55	-0.04	-0.55
13,373.00	91.48	179.28	12,621.45	-1,129.49	-415.44	1,125.67	2.36	0.51	-2.31
13,466.00	90.21	179.49	12,620.08	-1,222.47	-414.44	1,218.66	1.38	-1.37	0.23
13,561.00	89.08	178.32	12,620.67	-1,317.45	-412.63	1,313.65	1.71	-1.19	-1.23
13,655.00	91.42	178.50	12,620.26	-1,411.40	-410.02	1,407.62	2.50	2.49	0.19
13,749.00	90.88	178.71	12,618.37	-1,505.36	-407.73	1,501.59	0.62	-0.57	0.22
13,844.00	91.57	178.65	12,616.34	-1,600.31	-405.54	1,596.56	0.73	0.73	-0.06
13,938.00	91.02	178.24	12,614.22	-1,694.25	-402.99	1,690.52	0.73	-0.59	-0.44
14,033.00	89.51	177.00	12,613.78	-1,789.16	-399.05	1,785.47	2.06	-1.59	-1.31
14,128.00	89.89	176.65	12,614.28	-1,884.02	-393.79	1,880.36	0.54	0.40	-0.37
14,222.00	89.99	177.66	12,614.37	-1,977.90	-389.12	1,974.29	1.08	0.11	1.07
14,314.00	88.04	175.90	12,615.96	-2,069.73	-383.95	2,066.16	2.85	-2.12	-1.91
14,408.00	88.13	174.42	12,619.10	-2,163.34	-376.03	2,159.84	1.58	0.10	-1.57
14,502.00	89.36	175.21	12,621.16	-2,256.93	-367.54	2,253.50	1.56	1.31	0.84
14,597.00	89.94	174.84	12,621.74	-2,351.57	-359.30	2,348.21	0.72	0.61	-0.39
14,691.00	88.08	174.34	12,623.36	-2,445.13	-350.44	2,441.85	2.05	-1.98	-0.53
14,785.00	91.71	174.83	12,623.53	-2,538.70	-341.57	2,535.49	3.90	3.86	0.52
14,883.00	90.20	175.19	12,621.90	-2,636.31	-333.05	2,633.18	1.58	-1.54	0.37
14,977.00	90.29	177.29	12,621.50	-2,730.10	-326.88	2,727.02	2.24	0.10	2.23
15,072.00	91.15	179.54	12,620.30	-2,825.05	-324.25	2,821.99	2.54	0.91	2.37
15,167.00	90.62	180.19	12,618.84	-2,920.04	-324.03	2,916.98	0.88	-0.56	0.68
15,261.00	90.13	179.71	12,618.22	-3,014.04	-323.95	3,010.97	0.73	-0.52	-0.51
15,355.00	90.34	180.62	12,617.84	-3,108.03	-324.22	3,104.96	0.99	0.22	0.97
15,450.00	90.96	181.80	12,616.76	-3,203.00	-326.22	3,199.91	1.40	0.65	1.24
15,544.00	91.14	183.60	12,615.03	-3,296.88	-330.65	3,293.74	1.92	0.19	1.91
15,639.00	89.41	183.21	12,614.58	-3,391.71	-336.29	3,388.52	1.87	-1.82	-0.41
15,733.00	88.73	181.42	12,616.10	-3,485.61	-340.09	3,482.38	2.04	-0.72	-1.90
15,828.00	89.64	180.40	12,617.46	-3,580.59	-341.60	3,577.34	1.44	0.96	-1.07
15,922.00	90.00	180.71	12,617.75	-3,674.59	-342.51	3,671.33	0.51	0.38	0.33
16,016.00	90.48	180.82	12,617.36	-3,768.58	-343.76	3,765.30	0.52	0.51	0.12
16,110.00	89.53	179.37	12,617.35	-3,862.57	-343.92	3,859.29	1.84	-1.01	-1.54
16,205.00	88.75	179.18	12,618.78	-3,957.55	-342.72	3,954.28	0.85	-0.82	-0.20
16,300.00	90.53	180.33	12,619.37	-4,052.55	-342.31	4,049.27	2.23	1.87	1.21
16,394.00	90.77	180.77	12,618.31	-4,146.53	-343.21	4,143.25	0.53	0.26	0.47
16,489.00	91.26	179.42	12,616.62	-4,241.52	-343.37	4,238.23	1.51	0.52	-1.42
16,583.00	90.28	176.97	12,615.36	-4,335.45	-340.41	4,332.19	2.81	-1.04	-2.61
16,678.00	92.41	178.71	12,613.13	-4,430.35	-336.83	4,427.11	2.89	2.24	1.83



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,772.00	92.57	177.80	12,609.05	-4,524.22	-333.97	4,521.00	0.98	0.17	-0.97
16,866.00	92.31	179.85	12,605.04	-4,618.11	-332.05	4,614.90	2.20	-0.28	2.18
16,960.00	90.83	179.09	12,602.47	-4,712.06	-331.18	4,708.86	1.77	-1.57	-0.81
17,054.00	89.79	179.84	12,601.96	-4,806.06	-330.30	4,802.86	1.36	-1.11	0.80
17,148.00	89.29	179.60	12,602.71	-4,900.05	-329.84	4,896.86	0.59	-0.53	-0.26
17,242.00	90.09	179.71	12,603.22	-4,994.05	-329.27	4,990.85	0.86	0.85	0.12
17,336.00	90.95	179.94	12,602.37	-5,088.04	-328.99	5,084.85	0.95	0.91	0.24
17,430.00	91.34	179.34	12,600.49	-5,182.02	-328.40	5,178.83	0.76	0.41	-0.64
17,525.00	91.74	179.34	12,597.94	-5,276.98	-327.30	5,273.79	0.42	0.42	0.00
17,690.00	87.72	179.08	12,598.72	-5,441.93	-325.03	5,438.76	2.44	-2.44	-0.16
17,785.00	89.01	179.88	12,601.43	-5,536.88	-324.17	5,533.71	1.60	1.36	0.84
17,879.00	89.24	179.48	12,602.86	-5,630.87	-323.64	5,627.70	0.49	0.24	-0.43
17,973.00	90.17	179.37	12,603.35	-5,724.86	-322.70	5,721.70	1.00	0.99	-0.12
18,067.00	91.25	179.32	12,602.18	-5,818.85	-321.62	5,815.69	1.15	1.15	-0.05
18,162.00	90.69	179.88	12,600.57	-5,913.83	-320.96	5,910.68	0.83	-0.59	0.59
18,257.00	89.20	180.05	12,600.66	-6,008.83	-320.90	6,005.67	1.58	-1.57	0.18
18,352.00	88.89	179.91	12,602.25	-6,103.82	-320.87	6,100.65	0.36	-0.33	-0.15
18,446.00	89.01	179.99	12,603.97	-6,197.80	-320.79	6,194.63	0.15	0.13	0.09
18,541.00	89.92	179.89	12,604.86	-6,292.80	-320.69	6,289.63	0.96	0.96	-0.11
18,635.00	88.90	179.12	12,605.82	-6,386.79	-319.88	6,383.62	1.36	-1.09	-0.82
18,730.00	87.90	180.06	12,608.48	-6,481.74	-319.20	6,478.58	1.44	-1.05	0.99
18,824.00	87.96	179.92	12,611.87	-6,575.68	-319.18	6,572.52	0.16	0.06	-0.15
18,918.00	88.45	179.65	12,614.82	-6,669.64	-318.83	6,666.47	0.60	0.52	-0.29
19,013.00	88.61	179.67	12,617.25	-6,764.60	-318.26	6,761.44	0.17	0.17	0.02
19,107.00	90.00	179.85	12,618.39	-6,858.59	-317.87	6,855.43	1.49	1.48	0.19
19,201.00	91.21	179.98	12,617.40	-6,952.59	-317.73	6,949.42	1.29	1.29	0.14
19,295.00	89.08	180.03	12,617.16	-7,046.58	-317.74	7,043.41	2.27	-2.27	0.05
19,389.00	87.53	178.70	12,619.94	-7,140.53	-316.70	7,137.36	2.17	-1.65	-1.41
19,484.00	87.38	178.81	12,624.16	-7,235.41	-314.64	7,232.26	0.20	-0.16	0.12
19,578.00	89.49	179.64	12,626.73	-7,329.36	-313.37	7,326.22	2.41	2.24	0.88
19,673.00	90.37	180.70	12,626.85	-7,424.36	-313.65	7,421.21	1.45	0.93	1.12
19,767.00	90.69	180.38	12,625.98	-7,518.35	-314.53	7,515.19	0.48	0.34	-0.34
19,861.00	91.44	179.64	12,624.23	-7,612.33	-314.55	7,609.16	1.12	0.80	-0.79
19,955.00	89.32	178.41	12,623.61	-7,706.31	-312.95	7,703.15	2.61	-2.26	-1.31
20,050.00	89.53	177.44	12,624.56	-7,801.24	-309.51	7,798.11	1.04	0.22	-1.02
20,144.00	89.83	178.33	12,625.08	-7,895.18	-306.04	7,892.07	1.00	0.32	0.95
20,240.00	89.17	180.09	12,625.92	-7,991.16	-304.72	7,988.06	1.96	-0.69	1.83
20,335.00	89.57	180.09	12,626.97	-8,086.15	-304.87	8,083.05	0.42	0.42	0.00
20,430.00	90.57	180.73	12,626.85	-8,181.15	-305.55	8,178.04	1.25	1.05	0.67
20,526.00	88.20	182.86	12,627.88	-8,277.08	-308.55	8,273.94	3.32	-2.47	2.22
20,621.00	88.43	182.53	12,630.67	-8,371.94	-313.02	8,368.75	0.42	0.24	-0.35
20,716.00	89.24	183.27	12,632.61	-8,466.79	-317.82	8,463.56	1.15	0.85	0.78
20,811.00	88.87	182.63	12,634.17	-8,561.65	-322.71	8,558.37	0.78	-0.39	-0.67
20,906.00	91.73	183.11	12,633.68	-8,656.52	-327.47	8,653.20	3.05	3.01	0.51



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #24H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Site:	White Falcon 16 State	MD Reference:	GL 3255' + 29' RKB @ 3284.00ft (Noram 23)
Well:	White Falcon 16 State #24H	North Reference:	Grid
Wellbore:	#24H	Survey Calculation Method:	Minimum Curvature
Design:	#24H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,002.00	91.34	180.34	12,631.10	-8,752.44	-330.36	8,749.08	2.91	-0.41	-2.89
21,097.00	88.41	178.29	12,631.31	-8,847.41	-329.22	8,844.06	3.76	-3.08	-2.16
21,192.00	89.24	177.99	12,633.26	-8,942.34	-326.14	8,939.02	0.93	0.87	-0.32
21,287.00	89.87	178.39	12,634.00	-9,037.29	-323.14	9,033.99	0.79	0.66	0.42
21,383.00	90.52	178.33	12,633.67	-9,133.25	-320.39	9,129.97	0.68	0.68	-0.06
21,478.00	91.08	177.68	12,632.34	-9,228.18	-317.08	9,224.93	0.90	0.59	-0.68
21,573.00	92.26	177.78	12,629.57	-9,323.07	-313.32	9,319.84	1.25	1.24	0.11
21,668.00	92.52	177.35	12,625.61	-9,417.90	-309.29	9,414.70	0.53	0.27	-0.45
21,764.00	90.19	176.17	12,623.34	-9,513.71	-303.86	9,510.56	2.72	-2.43	-1.23
21,859.00	90.22	176.17	12,623.00	-9,608.50	-297.52	9,605.40	0.03	0.03	0.00
21,954.00	89.72	176.75	12,623.05	-9,703.32	-291.65	9,700.27	0.81	-0.53	0.61
22,049.00	91.04	178.68	12,622.42	-9,798.23	-287.87	9,795.22	2.46	1.39	2.03
22,144.00	91.39	178.86	12,620.41	-9,893.19	-285.83	9,890.19	0.41	0.37	0.19
22,240.00	91.53	178.84	12,617.96	-9,989.14	-283.90	9,986.15	0.15	0.15	-0.02
22,258.87	91.60	178.92	12,617.45	-10,008.00	-283.53	10,005.01	0.57	0.36	0.45
22259'MD 330' Crossing FSL									
22,323.00	91.83	179.21	12,615.53	-10,072.09	-282.49	10,069.11	0.57	0.36	0.45
22323'MD: Final MWD Survey									
22,388.00	91.83	179.21	12,613.45	-10,137.05	-281.59	10,134.08	0.00	0.00	0.00
22388'MD: Projection to Total Depth									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.17	0.30	100'MD SDI Gyro Survey Keeper Gyro
11,412.00	11,408.64	-100.38	-163.00	11412'MD: Final Gyro Survey
11,412.00	11,408.64	-100.38	-163.00	11412'MD: Tie into SDI Gyro
11,455.00	11,451.61	-100.56	-164.52	11455'MD: Begin DrillTech MWD
11,982.17	11,978.39	-106.42	-182.60	11982'MD 330' Crossing FNL
22,258.87	12,617.45	-10,008.00	-283.53	22259'MD 330' Crossing FSL
22,323.00	12,615.53	-10,072.09	-282.49	22323'MD: Final MWD Survey
22,388.00	12,613.45	-10,137.05	-281.59	22388'MD: Projection to Total Depth

Checked By: _____ Approved By: _____ Date: _____