

Concho Operating

Lea County, NM (Nad 27)

White Falcon 16 State

White Falcon 16 State #13H

#13H

Design: #13H

Standard Survey Report

23 February, 2018

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Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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 #13H					
Well Position	+N/-S	0.00 ft	Northing:	414,833.80 usfl	Latitude:	32.137°N
	+E/-W	0.00 ft	Easting:	795,694.00 usfl	Longitude:	103.378°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,257.00 ft

Wellbore	#13H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/15/2017	6.83	60.01	47,882.48682505

Design	#13H				
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	179.38	

Survey Program	Date 2/23/2018				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	11,600.00	Keeper Gyro Surveys (#13H)	Keeper	Keeper Standard Rate Gyro	
11,737.00	16,912.00	DrilTech MWD - Tied to Gyro (#13H)	MWD	MWD - Standard	

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	73.34	100.00	0.10	0.33	-0.10	0.40	0.40	0.00	
100'MD: Begin SDI Keeper Gyro Survey										
125.00	0.46	60.46	125.00	0.17	0.51	-0.17	0.45	0.24	-51.52	
150.00	0.47	64.64	150.00	0.27	0.69	-0.26	0.14	0.04	16.72	
175.00	0.43	60.42	175.00	0.36	0.86	-0.35	0.21	-0.16	-16.88	
200.00	0.56	71.97	200.00	0.44	1.06	-0.43	0.65	0.52	46.20	
225.00	0.69	60.31	224.99	0.55	1.30	-0.54	0.72	0.52	-46.64	
250.00	0.63	70.25	249.99	0.68	1.56	-0.66	0.52	-0.24	39.76	
275.00	0.66	73.43	274.99	0.76	1.83	-0.74	0.19	0.12	12.72	



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Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
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Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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)
300.00	0.73	69.29	299.99	0.86	2.12	-0.84	0.34	0.28	-16.56
325.00	0.88	72.25	324.99	0.98	2.45	-0.95	0.62	0.60	11.84
350.00	0.89	77.16	349.98	1.08	2.82	-1.05	0.31	0.04	19.64
375.00	1.07	75.72	374.98	1.18	3.24	-1.14	0.73	0.72	-5.76
400.00	1.14	78.35	399.98	1.29	3.71	-1.25	0.35	0.28	10.52
425.00	1.15	79.76	424.97	1.38	4.20	-1.33	0.12	0.04	5.64
450.00	1.13	84.48	449.97	1.45	4.69	-1.40	0.38	-0.08	18.88
475.00	1.01	75.53	474.96	1.53	5.15	-1.47	0.82	-0.48	-35.80
500.00	1.06	81.28	499.96	1.62	5.59	-1.56	0.46	0.20	23.00
525.00	1.07	80.66	524.95	1.69	6.05	-1.63	0.06	0.04	-2.48
550.00	1.07	78.85	549.95	1.77	6.51	-1.70	0.14	0.00	-7.24
575.00	1.17	75.03	574.94	1.88	6.99	-1.81	0.50	0.40	-15.28
600.00	1.25	71.20	599.94	2.04	7.49	-1.96	0.45	0.32	-15.32
625.00	1.38	69.96	624.93	2.23	8.03	-2.14	0.53	0.52	-4.96
650.00	1.21	74.09	649.93	2.41	8.57	-2.31	0.78	-0.68	16.52
675.00	1.19	63.81	674.92	2.59	9.05	-2.49	0.86	-0.08	-41.12
700.00	1.33	58.39	699.91	2.86	9.53	-2.76	0.73	0.56	-21.68
725.00	1.78	54.00	724.90	3.24	10.10	-3.13	1.86	1.80	-17.56
750.00	1.93	46.23	749.89	3.76	10.71	-3.64	1.17	0.60	-31.08
775.00	2.11	43.22	774.88	4.38	11.33	-4.26	0.84	0.72	-12.04
800.00	2.13	45.97	799.86	5.04	11.98	-4.91	0.41	0.08	11.00
825.00	2.24	42.14	824.84	5.73	12.64	-5.59	0.73	0.44	-15.32
850.00	2.37	39.27	849.82	6.49	13.30	-6.35	0.70	0.52	-11.48
875.00	2.36	37.56	874.80	7.30	13.94	-7.15	0.29	-0.04	-6.84
900.00	2.32	36.60	899.78	8.11	14.56	-7.96	0.22	-0.16	-3.84
925.00	2.45	37.85	924.76	8.94	15.18	-8.78	0.56	0.52	5.00
950.00	2.62	35.81	949.73	9.83	15.85	-9.65	0.77	0.68	-8.16
975.00	3.04	36.08	974.70	10.83	16.57	-10.65	1.68	1.68	1.08
1,000.00	3.01	37.08	999.67	11.89	17.36	-11.70	0.24	-0.12	4.00
1,025.00	2.98	37.94	1,024.63	12.92	18.15	-12.72	0.22	-0.12	3.44
1,050.00	2.96	35.86	1,049.60	13.96	18.93	-13.75	0.44	-0.08	-8.32
1,075.00	2.97	36.47	1,074.57	15.00	19.69	-14.79	0.13	0.04	2.44
1,100.00	2.98	35.54	1,099.53	16.05	20.46	-15.83	0.20	0.04	-3.72
1,125.00	2.95	35.53	1,124.50	17.10	21.21	-16.87	0.12	-0.12	-0.04
1,150.00	2.86	34.98	1,149.47	18.14	21.94	-17.90	0.38	-0.36	-2.20
1,175.00	2.72	34.28	1,174.44	19.14	22.63	-18.89	0.58	-0.56	-2.80
1,200.00	2.64	29.41	1,199.41	20.13	23.25	-19.88	0.97	-0.32	-19.48
1,225.00	2.33	14.47	1,224.39	21.12	23.66	-20.87	2.86	-1.24	-59.76
1,250.00	2.16	352.59	1,249.37	22.08	23.72	-21.83	3.47	-0.68	-87.52
1,275.00	2.25	332.60	1,274.35	22.99	23.44	-22.73	3.08	0.36	-79.96
1,300.00	2.88	316.66	1,299.32	23.88	22.78	-23.63	3.78	2.52	-63.76
1,325.00	3.16	314.93	1,324.29	24.82	21.86	-24.58	1.18	1.12	-6.92
1,350.00	3.06	315.64	1,349.25	25.79	20.91	-25.56	0.43	-0.40	2.84



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Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
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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)	Builde Rate (°/100ft)	Turn Rate (°/100ft)
1,375.00	3.00	315.84	1,374.22	26.73	19.98	-26.51	0.24	-0.24	0.80
1,400.00	3.04	310.90	1,399.18	27.64	19.03	-27.43	1.05	0.16	-19.76
1,425.00	2.75	312.04	1,424.15	28.47	18.08	-28.27	1.18	-1.16	4.56
1,450.00	1.99	310.63	1,449.13	29.16	17.31	-28.97	3.05	-3.04	-5.64
1,475.00	1.57	309.22	1,474.12	29.65	16.71	-29.47	1.69	-1.68	-5.64
1,500.00	1.30	307.16	1,499.11	30.04	16.22	-29.87	1.10	-1.08	-8.24
1,525.00	1.10	310.43	1,524.10	30.37	15.81	-30.20	0.85	-0.80	13.08
1,550.00	1.06	310.33	1,549.10	30.67	15.45	-30.51	0.16	-0.16	-0.40
1,575.00	1.09	309.71	1,574.10	30.98	15.09	-30.81	0.13	0.12	-2.48
1,600.00	1.07	313.71	1,599.09	31.29	14.74	-31.13	0.31	-0.08	16.00
1,625.00	0.98	310.75	1,624.09	31.59	14.41	-31.43	0.42	-0.36	-11.84
1,650.00	0.97	310.10	1,649.08	31.87	14.09	-31.71	0.06	-0.04	-2.60
1,675.00	0.83	309.80	1,674.08	32.12	13.79	-31.97	0.56	-0.56	-1.20
1,700.00	0.87	307.15	1,699.08	32.35	13.50	-32.20	0.22	0.16	-10.60
1,725.00	0.93	303.11	1,724.07	32.57	13.18	-32.43	0.35	0.24	-16.16
1,750.00	0.88	306.82	1,749.07	32.80	12.85	-32.66	0.31	-0.20	14.84
1,775.00	0.88	303.96	1,774.07	33.02	12.54	-32.89	0.18	0.00	-11.44
1,800.00	1.01	304.33	1,799.06	33.25	12.20	-33.12	0.52	0.52	1.48
1,825.00	0.99	305.26	1,824.06	33.50	11.84	-33.37	0.10	-0.08	3.72
1,850.00	1.01	306.93	1,849.06	33.76	11.49	-33.63	0.14	0.08	6.68
1,875.00	1.11	310.55	1,874.05	34.05	11.13	-33.93	0.48	0.40	14.48
1,900.00	1.05	304.84	1,899.05	34.34	10.75	-34.22	0.49	-0.24	-22.84
1,925.00	1.02	299.18	1,924.04	34.58	10.37	-34.46	0.43	-0.12	-22.64
1,950.00	1.06	294.68	1,949.04	34.78	9.97	-34.67	0.36	0.16	-18.00
1,975.00	0.95	293.92	1,974.04	34.96	9.57	-34.86	0.44	-0.44	-3.04
2,000.00	1.00	291.94	1,999.03	35.13	9.18	-35.03	0.24	0.20	-7.92
2,025.00	1.01	288.18	2,024.03	35.28	8.76	-35.18	0.27	0.04	-15.04
2,050.00	0.96	289.47	2,049.03	35.42	8.36	-35.33	0.22	-0.20	5.16
2,075.00	1.00	286.73	2,074.02	35.55	7.95	-35.46	0.25	0.16	-10.96
2,100.00	0.94	285.57	2,099.02	35.67	7.55	-35.58	0.25	-0.24	-4.64
2,125.00	1.01	286.51	2,124.01	35.79	7.14	-35.71	0.29	0.28	3.76
2,150.00	1.05	285.79	2,149.01	35.91	6.70	-35.84	0.17	0.16	-2.88
2,175.00	1.08	285.58	2,174.01	36.04	6.26	-35.97	0.12	0.12	-0.84
2,200.00	1.00	285.86	2,199.00	36.16	5.82	-36.09	0.32	-0.32	1.12
2,225.00	0.99	289.63	2,224.00	36.29	5.41	-36.23	0.26	-0.04	15.08
2,250.00	0.98	291.45	2,248.99	36.44	5.00	-36.39	0.13	-0.04	7.28
2,275.00	0.98	290.15	2,273.99	36.59	4.61	-36.54	0.09	0.00	-5.20
2,300.00	0.95	288.77	2,298.99	36.73	4.21	-36.69	0.15	-0.12	-5.52
2,325.00	1.00	287.38	2,323.98	36.87	3.80	-36.82	0.22	0.20	-5.56
2,350.00	0.98	288.21	2,348.98	37.00	3.39	-36.96	0.10	-0.08	3.32
2,375.00	0.98	294.42	2,373.98	37.15	2.99	-37.12	0.42	0.00	24.84
2,400.00	1.00	295.15	2,398.97	37.33	2.60	-37.30	0.09	0.08	2.92
2,425.00	0.94	294.81	2,423.97	37.51	2.22	-37.49	0.24	-0.24	-1.36

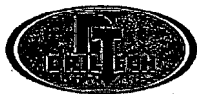


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Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey

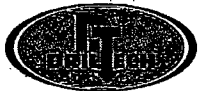
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,450.00	1.00	294.82	2,448.97	37.69	1.83	-37.67	0.24	0.24	0.04
2,475.00	1.03	297.54	2,473.96	37.89	1.44	-37.87	0.23	0.12	10.88
2,500.00	1.08	301.65	2,498.96	38.11	1.04	-38.10	0.36	0.20	16.44
2,525.00	1.05	303.88	2,523.95	38.37	0.65	-38.36	0.20	-0.12	8.92
2,550.00	0.99	304.04	2,548.95	38.61	0.28	-38.61	0.24	-0.24	0.64
2,575.00	0.95	307.93	2,573.95	38.86	-0.06	-38.86	0.31	-0.16	15.56
2,600.00	0.92	306.50	2,598.94	39.11	-0.39	-39.11	0.15	-0.12	-5.72
2,625.00	0.96	307.31	2,623.94	39.36	-0.72	-39.36	0.17	0.16	3.24
2,650.00	0.99	309.76	2,648.94	39.62	-1.05	-39.63	0.21	0.12	9.80
2,675.00	0.88	308.53	2,673.93	39.88	-1.37	-39.89	0.45	-0.44	-4.92
2,700.00	0.90	316.25	2,698.93	40.14	-1.65	-40.15	0.49	0.08	30.88
2,725.00	0.79	318.05	2,723.93	40.41	-1.90	-40.43	0.45	-0.44	7.20
2,750.00	0.87	319.90	2,748.92	40.68	-2.14	-40.70	0.34	0.32	7.40
2,775.00	0.81	321.71	2,773.92	40.97	-2.37	-40.99	0.26	-0.24	7.24
2,800.00	0.80	318.53	2,798.92	41.24	-2.60	-41.26	0.18	-0.04	-12.72
2,825.00	0.78	321.78	2,823.92	41.50	-2.82	-41.53	0.20	-0.08	13.00
2,850.00	0.68	317.99	2,848.91	41.74	-3.02	-41.77	0.44	-0.40	-15.16
2,875.00	0.46	311.04	2,873.91	41.92	-3.20	-41.95	0.92	-0.88	-27.80
2,900.00	0.46	319.02	2,898.91	42.06	-3.34	-42.10	0.26	0.00	31.92
2,925.00	0.51	311.94	2,923.91	42.21	-3.49	-42.25	0.31	0.20	-28.32
2,950.00	0.50	311.49	2,948.91	42.36	-3.65	-42.40	0.04	-0.04	-1.80
2,975.00	0.44	306.30	2,973.91	42.49	-3.81	-42.53	0.29	-0.24	-20.76
3,000.00	0.50	308.23	2,998.91	42.61	-3.97	-42.65	0.25	0.24	7.72
3,025.00	0.50	311.33	3,023.91	42.75	-4.14	-42.79	0.11	0.00	12.40
3,050.00	0.43	312.94	3,048.91	42.89	-4.29	-42.93	0.28	-0.28	6.44
3,075.00	0.44	310.02	3,073.91	43.01	-4.43	-43.06	0.10	0.04	-11.68
3,100.00	0.50	312.69	3,098.91	43.15	-4.59	-43.20	0.26	0.24	10.68
3,125.00	0.46	313.42	3,123.90	43.29	-4.74	-43.34	0.16	-0.16	2.92
3,150.00	0.35	339.90	3,148.90	43.43	-4.84	-43.48	0.86	-0.44	105.92
3,175.00	0.37	340.45	3,173.90	43.58	-4.89	-43.63	0.08	0.08	2.20
3,200.00	0.36	339.88	3,198.90	43.73	-4.95	-43.78	0.04	-0.04	-2.28
3,225.00	0.38	351.40	3,223.90	43.89	-4.99	-43.94	0.31	0.08	46.08
3,250.00	0.37	340.32	3,248.90	44.04	-5.03	-44.10	0.29	-0.04	-44.32
3,275.00	0.36	354.30	3,273.90	44.20	-5.06	-44.25	0.36	-0.04	55.92
3,300.00	0.55	348.79	3,298.90	44.39	-5.09	-44.45	0.78	0.76	-22.04
3,325.00	0.55	348.41	3,323.90	44.63	-5.14	-44.68	0.01	0.00	-1.52
3,350.00	0.67	342.04	3,348.90	44.89	-5.21	-44.94	0.55	0.48	-25.48
3,375.00	0.87	336.58	3,373.90	45.20	-5.33	-45.25	0.85	0.80	-21.84
3,400.00	0.76	325.70	3,398.89	45.51	-5.50	-45.57	0.76	-0.44	-43.52
3,425.00	0.96	331.44	3,423.89	45.83	-5.69	-45.89	0.87	0.80	22.96
3,450.00	0.92	336.42	3,448.89	46.20	-5.87	-46.26	0.36	-0.16	19.92
3,475.00	0.90	336.50	3,473.88	46.56	-6.03	-46.63	0.08	-0.08	0.32
3,500.00	0.81	338.47	3,498.88	46.91	-6.17	-46.97	0.38	-0.36	7.88
3,525.00	0.72	332.79	3,523.88	47.21	-6.31	-47.28	0.47	-0.36	-22.72



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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	0.65	334.00	3,548.88	47.48	-6.45	-47.55	0.29	-0.28	4.84	
3,575.00	0.73	323.47	3,573.87	47.73	-6.60	-47.80	0.60	0.32	-42.12	
3,600.00	0.63	314.81	3,598.87	47.96	-6.79	-48.03	0.57	-0.40	-34.64	
3,625.00	0.85	279.21	3,623.87	48.09	-7.08	-48.16	1.99	0.88	-142.40	
3,650.00	1.11	271.06	3,648.87	48.12	-7.50	-48.20	1.18	1.04	-32.60	
3,675.00	1.29	269.26	3,673.86	48.12	-8.02	-48.20	0.74	0.72	-7.20	
3,700.00	0.87	285.84	3,698.86	48.17	-8.49	-48.26	2.08	-1.68	66.32	
3,725.00	1.15	269.62	3,723.85	48.22	-8.92	-48.31	1.59	1.12	-64.88	
3,750.00	1.36	263.30	3,748.85	48.18	-9.47	-48.28	1.00	0.84	-25.28	
3,775.00	1.22	268.44	3,773.84	48.14	-10.03	-48.25	0.73	-0.56	20.56	
3,800.00	1.32	264.71	3,798.84	48.11	-10.58	-48.22	0.52	0.40	-14.92	
3,825.00	1.45	267.48	3,823.83	48.07	-11.18	-48.18	0.58	0.52	11.08	
3,850.00	1.48	267.88	3,848.82	48.04	-11.82	-48.17	0.13	0.12	1.60	
3,875.00	1.50	266.54	3,873.81	48.01	-12.47	-48.14	0.16	0.08	-5.36	
3,900.00	1.50	268.83	3,898.80	47.98	-13.12	-48.12	0.24	0.00	9.16	
3,925.00	1.44	267.80	3,923.79	47.96	-13.77	-48.11	0.26	-0.24	-4.12	
3,950.00	1.52	265.55	3,948.79	47.93	-14.41	-48.08	0.40	0.32	-9.00	
3,975.00	1.49	267.27	3,973.78	47.88	-15.07	-48.04	0.22	-0.12	6.88	
4,000.00	0.94	268.24	3,998.77	47.86	-15.59	-48.03	2.20	-2.20	3.88	
4,025.00	0.40	278.73	4,023.77	47.87	-15.89	-48.04	2.21	-2.16	41.96	
4,050.00	0.22	335.50	4,048.77	47.93	-15.99	-48.10	1.34	-0.72	227.08	
4,075.00	0.24	44.51	4,073.77	48.01	-15.98	-48.18	1.04	0.08	276.04	
4,100.00	0.27	32.13	4,098.77	48.10	-15.91	-48.26	0.25	0.12	-49.52	
4,125.00	0.33	18.30	4,123.77	48.21	-15.85	-48.38	0.37	0.24	-55.32	
4,150.00	0.37	37.95	4,148.77	48.35	-15.78	-48.51	0.50	0.16	78.60	
4,175.00	0.51	31.39	4,173.77	48.50	-15.67	-48.67	0.59	0.56	-26.24	
4,200.00	0.51	45.20	4,198.77	48.68	-15.54	-48.84	0.49	0.00	55.24	
4,225.00	0.54	47.83	4,223.77	48.83	-15.37	-49.00	0.15	0.12	10.52	
4,250.00	0.64	52.69	4,248.76	49.00	-15.17	-49.16	0.45	0.40	19.44	
4,275.00	0.71	62.22	4,273.76	49.16	-14.92	-49.31	0.53	0.28	38.12	
4,300.00	0.79	59.49	4,298.76	49.32	-14.64	-49.47	0.35	0.32	-10.92	
4,325.00	0.78	63.97	4,323.76	49.48	-14.34	-49.63	0.25	-0.04	17.92	
4,350.00	0.82	63.15	4,348.76	49.63	-14.02	-49.78	0.17	0.16	-3.28	
4,375.00	0.70	66.03	4,373.75	49.78	-13.73	-49.92	0.50	-0.48	11.52	
4,400.00	0.73	66.60	4,398.75	49.90	-13.44	-50.04	0.12	0.12	2.28	
4,425.00	0.76	58.71	4,423.75	50.05	-13.15	-50.19	0.43	0.12	-31.56	
4,450.00	0.58	48.69	4,448.75	50.22	-12.92	-50.36	0.86	-0.72	-40.08	
4,475.00	0.61	356.86	4,473.75	50.44	-12.83	-50.57	2.08	0.12	-207.32	
4,500.00	0.72	348.47	4,498.74	50.72	-12.87	-50.86	0.59	0.44	-33.56	
4,525.00	0.78	343.12	4,523.74	51.04	-12.95	-51.18	0.37	0.24	-21.40	
4,550.00	0.70	342.49	4,548.74	51.35	-13.04	-51.49	0.32	-0.32	-2.52	
4,575.00	0.75	341.63	4,573.74	51.65	-13.14	-51.79	0.20	0.20	-3.44	
4,600.00	0.77	349.60	4,598.74	51.97	-13.22	-52.11	0.43	0.08	31.88	



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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	0.78	7.67	4,623.73	52.30	-13.23	-52.44	0.97	0.04	72.28
4,650.00	0.79	36.23	4,648.73	52.61	-13.10	-52.75	1.55	0.04	114.24
4,675.00	0.97	47.16	4,673.73	52.89	-12.85	-53.03	0.98	0.72	43.72
4,700.00	1.13	52.79	4,698.72	53.19	-12.50	-53.32	0.76	0.64	22.52
4,725.00	1.13	52.24	4,723.72	53.49	-12.11	-53.61	0.04	0.00	-2.20
4,750.00	1.16	52.45	4,748.72	53.79	-11.71	-53.92	0.12	0.12	0.84
4,775.00	1.21	50.22	4,773.71	54.12	-11.31	-54.23	0.27	0.20	-8.92
4,800.00	1.13	51.51	4,798.70	54.44	-10.91	-54.55	0.34	-0.32	5.16
4,825.00	1.12	50.96	4,823.70	54.74	-10.53	-54.86	0.06	-0.04	-2.20
4,850.00	1.07	45.64	4,848.70	55.06	-10.17	-55.17	0.45	-0.20	-21.28
4,875.00	1.09	44.95	4,873.69	55.39	-9.84	-55.50	0.10	0.08	-2.76
4,900.00	1.18	45.25	4,898.69	55.74	-9.49	-55.84	0.36	0.36	1.20
4,925.00	1.02	42.99	4,923.68	56.09	-9.15	-56.18	0.66	-0.64	-9.04
4,950.00	0.97	41.70	4,948.68	56.41	-8.86	-56.50	0.22	-0.20	-5.16
4,975.00	1.02	40.57	4,973.67	56.73	-8.57	-56.82	0.21	0.20	-4.52
5,000.00	0.82	32.95	4,998.67	57.05	-8.33	-57.14	0.94	-0.80	-30.48
5,025.00	0.72	9.80	5,023.67	57.36	-8.21	-57.44	1.30	-0.40	-92.60
5,050.00	1.24	314.62	5,048.66	57.70	-8.37	-57.79	4.07	2.08	-220.72
5,075.00	1.61	308.61	5,073.66	58.11	-8.84	-58.21	1.59	1.48	-24.04
5,100.00	1.63	303.71	5,098.65	58.53	-9.41	-58.63	0.56	0.08	-19.60
5,125.00	1.67	306.80	5,123.64	58.94	-10.00	-59.05	0.39	0.16	12.36
5,150.00	1.61	306.39	5,148.63	59.37	-10.57	-59.48	0.24	-0.24	-1.64
5,175.00	1.59	309.66	5,173.62	59.80	-11.12	-59.92	0.37	-0.08	13.08
5,200.00	1.51	308.79	5,198.61	60.23	-11.64	-60.35	0.33	-0.32	-3.48
5,225.00	1.16	311.60	5,223.60	60.60	-12.09	-60.73	1.42	-1.40	11.24
5,250.00	0.55	324.04	5,248.60	60.87	-12.35	-61.00	2.54	-2.44	49.76
5,275.00	0.23	299.49	5,273.60	60.99	-12.46	-61.12	1.42	-1.28	-98.20
5,300.00	0.10	271.95	5,298.60	61.02	-12.53	-61.15	0.59	-0.52	-110.16
5,325.00	0.13	274.04	5,323.60	61.02	-12.58	-61.15	0.12	0.12	8.36
5,350.00	0.28	264.43	5,348.60	61.01	-12.67	-61.15	0.61	0.60	-38.44
5,375.00	0.28	269.86	5,373.60	61.01	-12.79	-61.14	0.11	0.00	21.72
5,400.00	0.38	263.55	5,398.60	61.00	-12.93	-61.14	0.43	0.40	-25.24
5,425.00	0.47	260.43	5,423.60	60.97	-13.12	-61.11	0.37	0.36	-12.48
5,450.00	0.29	266.70	5,448.60	60.95	-13.28	-61.09	0.74	-0.72	25.08
5,475.00	0.21	285.69	5,473.59	60.96	-13.39	-61.10	0.46	-0.32	75.96
5,500.00	0.25	278.18	5,498.59	60.98	-13.49	-61.12	0.20	0.16	-30.04
5,525.00	0.32	262.72	5,523.59	60.98	-13.61	-61.12	0.41	0.28	-61.84
5,550.00	0.21	269.28	5,548.59	60.97	-13.73	-61.12	0.46	-0.44	26.24
5,575.00	0.30	268.17	5,573.59	60.97	-13.84	-61.11	0.36	0.36	-4.44
5,600.00	0.44	254.27	5,598.59	60.94	-14.00	-61.09	0.66	0.56	-55.60
5,625.00	0.28	270.07	5,623.59	60.91	-14.15	-61.06	0.75	-0.64	63.20
5,650.00	0.36	245.07	5,648.59	60.88	-14.28	-61.03	0.64	0.32	-100.00
5,675.00	0.39	251.02	5,673.59	60.82	-14.43	-60.97	0.20	0.12	23.80



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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)
5,700.00	0.24	250.19	5,698.59	60.77	-14.56	-60.93	0.60	-0.60	-3.32
5,725.00	0.32	242.16	5,723.59	60.72	-14.67	-60.88	0.36	0.32	-32.12
5,750.00	0.18	245.50	5,748.59	60.68	-14.77	-60.83	0.56	-0.56	13.36
5,775.00	0.23	237.15	5,773.59	60.63	-14.85	-60.79	0.23	0.20	-33.40
5,800.00	0.30	253.02	5,798.59	60.59	-14.95	-60.74	0.40	0.28	63.48
5,825.00	0.19	286.56	5,823.59	60.58	-15.06	-60.74	0.71	-0.44	134.16
5,850.00	0.31	279.90	5,848.59	60.60	-15.16	-60.76	0.49	0.48	-26.64
5,875.00	0.35	281.30	5,873.59	60.63	-15.30	-60.79	0.16	0.16	5.60
5,900.00	0.33	291.39	5,898.59	60.67	-15.45	-60.83	0.25	-0.08	40.36
5,925.00	0.38	289.29	5,923.59	60.72	-15.59	-60.89	0.21	0.20	-8.40
5,950.00	0.45	286.80	5,948.59	60.78	-15.76	-60.95	0.29	0.28	-9.96
5,975.00	0.34	291.62	5,973.59	60.83	-15.93	-61.00	0.46	-0.44	19.28
6,000.00	0.48	280.85	5,998.59	60.88	-16.10	-61.05	0.64	0.56	-43.08
6,025.00	0.43	278.18	6,023.59	60.91	-16.29	-61.09	0.22	-0.20	-10.68
6,050.00	0.43	264.92	6,048.59	60.92	-16.48	-61.09	0.40	0.00	-53.04
6,075.00	0.42	259.07	6,073.58	60.89	-16.66	-61.07	0.18	-0.04	-23.40
6,100.00	0.31	271.19	6,098.58	60.88	-16.82	-61.06	0.54	-0.44	48.48
6,125.00	0.37	283.10	6,123.58	60.90	-16.97	-61.08	0.37	0.24	47.64
6,150.00	0.28	273.84	6,148.58	60.92	-17.11	-61.10	0.42	-0.36	-37.04
6,175.00	0.34	288.43	6,173.58	60.95	-17.24	-61.13	0.39	0.24	58.36
6,200.00	0.34	270.51	6,198.58	60.97	-17.38	-61.16	0.42	0.00	-71.68
6,225.00	0.35	269.94	6,223.58	60.97	-17.53	-61.16	0.04	0.04	-2.28
6,250.00	0.31	283.72	6,248.58	60.99	-17.68	-61.18	0.35	-0.16	55.12
6,275.00	0.37	299.16	6,273.58	61.04	-17.81	-61.23	0.44	0.24	61.76
6,300.00	0.42	289.68	6,298.58	61.11	-17.97	-61.30	0.33	0.20	-37.92
6,325.00	0.51	275.32	6,323.58	61.15	-18.17	-61.35	0.59	0.36	-57.44
6,350.00	0.46	267.91	6,348.58	61.16	-18.38	-61.36	0.32	-0.20	-29.64
6,375.00	0.43	264.13	6,373.58	61.15	-18.57	-61.35	0.17	-0.12	-15.12
6,400.00	0.36	262.27	6,398.58	61.13	-18.74	-61.33	0.28	-0.28	-7.44
6,425.00	0.22	263.07	6,423.58	61.11	-18.87	-61.31	0.56	-0.56	3.20
6,450.00	0.25	263.83	6,448.58	61.10	-18.97	-61.30	0.12	0.12	3.04
6,475.00	0.18	284.64	6,473.58	61.10	-19.06	-61.31	0.42	-0.28	83.24
6,500.00	0.23	312.16	6,498.58	61.15	-19.14	-61.35	0.44	0.20	110.08
6,525.00	0.29	310.02	6,523.58	61.22	-19.22	-61.43	0.24	0.24	-8.56
6,550.00	0.38	285.90	6,548.58	61.29	-19.35	-61.49	0.66	0.36	-96.48
6,575.00	0.33	272.83	6,573.58	61.31	-19.50	-61.52	0.38	-0.20	-52.28
6,600.00	0.27	263.72	6,598.58	61.31	-19.63	-61.52	0.31	-0.24	-36.44
6,625.00	0.31	252.44	6,623.57	61.28	-19.75	-61.49	0.28	0.16	-45.12
6,650.00	0.18	256.42	6,648.57	61.25	-19.86	-61.46	0.52	-0.52	15.92
6,675.00	0.17	270.39	6,673.57	61.24	-19.93	-61.46	0.17	-0.04	55.88
6,700.00	0.17	268.09	6,698.57	61.24	-20.01	-61.46	0.03	0.00	-9.20
6,725.00	0.13	295.90	6,723.57	61.25	-20.07	-61.47	0.33	-0.16	111.24
6,750.00	0.25	297.52	6,748.57	61.29	-20.14	-61.51	0.48	0.48	6.48
6,775.00	0.27	299.32	6,773.57	61.35	-20.24	-61.56	0.09	0.08	7.20



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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	0.34	278.92	6,798.57	61.39	-20.37	-61.60	0.51	0.28	-81.60
6,825.00	0.31	274.18	6,823.57	61.40	-20.51	-61.62	0.16	-0.12	-18.96
6,850.00	0.27	253.02	6,848.57	61.39	-20.63	-61.61	0.45	-0.16	-84.64
6,875.00	0.16	287.61	6,873.57	61.38	-20.72	-61.60	0.66	-0.44	138.36
6,900.00	0.21	332.25	6,898.57	61.43	-20.78	-61.66	0.59	0.20	178.56
6,925.00	0.33	280.16	6,923.57	61.49	-20.87	-61.71	1.04	0.48	-208.36
6,950.00	0.28	282.06	6,948.57	61.51	-21.00	-61.74	0.20	-0.20	7.60
6,975.00	0.20	266.68	6,973.57	61.52	-21.10	-61.75	0.41	-0.32	-61.52
7,000.00	0.12	295.12	6,998.57	61.53	-21.17	-61.76	0.44	-0.32	113.76
7,025.00	0.14	238.06	7,023.57	61.53	-21.22	-61.75	0.50	0.08	-228.24
7,050.00	0.07	334.44	7,048.57	61.52	-21.25	-61.75	0.65	-0.28	385.52
7,075.00	0.18	307.71	7,073.57	61.56	-21.29	-61.79	0.49	0.44	-106.92
7,100.00	0.17	338.38	7,098.57	61.62	-21.33	-61.85	0.37	-0.04	122.68
7,125.00	0.18	337.31	7,123.57	61.69	-21.36	-61.92	0.04	0.04	-4.28
7,150.00	0.22	327.73	7,148.57	61.77	-21.40	-62.00	0.21	0.16	-38.32
7,175.00	0.21	310.96	7,173.57	61.84	-21.46	-62.07	0.25	-0.04	-67.08
7,200.00	0.17	324.77	7,198.57	61.90	-21.52	-62.13	0.24	-0.16	55.24
7,225.00	0.22	341.88	7,223.57	61.97	-21.56	-62.20	0.30	0.20	68.44
7,250.00	0.14	293.16	7,248.57	62.03	-21.60	-62.26	0.66	-0.32	-194.88
7,275.00	0.25	274.72	7,273.57	62.05	-21.68	-62.28	0.50	0.44	-73.76
7,300.00	0.12	249.51	7,298.57	62.04	-21.76	-62.28	0.60	-0.52	-100.84
7,325.00	0.07	255.48	7,323.57	62.03	-21.80	-62.26	0.20	-0.20	23.88
7,350.00	0.10	234.17	7,348.57	62.01	-21.83	-62.25	0.17	0.12	-85.24
7,375.00	0.09	39.43	7,373.57	62.02	-21.84	-62.25	0.75	-0.04	661.04
7,400.00	0.21	45.47	7,398.57	62.06	-21.79	-62.30	0.48	0.48	24.16
7,425.00	0.04	39.89	7,423.57	62.10	-21.75	-62.34	0.68	-0.68	-22.32
7,450.00	0.29	52.29	7,448.57	62.15	-21.70	-62.38	1.00	1.00	49.60
7,475.00	0.10	342.96	7,473.57	62.21	-21.65	-62.44	1.09	-0.76	-277.32
7,500.00	0.15	311.91	7,498.57	62.25	-21.69	-62.48	0.33	0.20	-124.20
7,525.00	0.05	240.29	7,523.57	62.27	-21.72	-62.50	0.57	-0.40	-286.48
7,550.00	0.09	5.84	7,548.57	62.28	-21.73	-62.51	0.50	0.16	502.20
7,575.00	0.16	342.85	7,573.57	62.33	-21.74	-62.57	0.34	0.28	-91.96
7,600.00	0.16	306.19	7,598.57	62.39	-21.77	-62.62	0.40	0.00	-146.64
7,625.00	0.08	231.89	7,623.57	62.40	-21.82	-62.63	0.63	-0.32	-297.20
7,650.00	0.03	159.15	7,648.57	62.38	-21.83	-62.61	0.31	-0.20	-290.96
7,675.00	0.13	23.30	7,673.57	62.40	-21.81	-62.63	0.61	0.40	-543.40
7,700.00	0.12	356.97	7,698.57	62.45	-21.80	-62.69	0.23	-0.04	-105.32
7,725.00	0.20	306.52	7,723.57	62.51	-21.84	-62.74	0.62	0.32	-201.80
7,750.00	0.08	292.54	7,748.57	62.54	-21.89	-62.77	0.50	-0.48	-55.92
7,775.00	0.07	113.88	7,773.57	62.54	-21.89	-62.77	0.60	-0.04	-714.64
7,800.00	0.07	40.47	7,798.57	62.54	-21.87	-62.78	0.33	0.00	-293.64
7,825.00	0.04	16.98	7,823.57	62.56	-21.86	-62.80	0.15	-0.12	-93.96
7,850.00	0.20	30.10	7,848.57	62.61	-21.83	-62.84	0.65	0.64	52.48



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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	0.20	38.97	7,873.57	62.68	-21.78	-62.91	0.12	0.00	35.48
7,900.00	0.16	24.31	7,898.57	62.75	-21.74	-62.98	0.24	-0.16	-58.64
7,925.00	0.21	16.24	7,923.57	62.82	-21.71	-63.05	0.23	0.20	-32.28
7,950.00	0.18	353.28	7,948.57	62.91	-21.71	-63.14	0.33	-0.12	-91.84
7,975.00	0.22	332.22	7,973.57	62.99	-21.73	-63.22	0.33	0.16	-84.24
8,000.00	0.20	309.43	7,998.57	63.06	-21.79	-63.29	0.34	-0.08	-91.16
8,025.00	0.26	302.94	8,023.57	63.12	-21.87	-63.35	0.26	0.24	-25.96
8,050.00	0.23	335.45	8,048.57	63.19	-21.94	-63.43	0.56	-0.12	130.04
8,075.00	0.23	320.51	8,073.57	63.28	-21.99	-63.51	0.24	0.00	-59.76
8,100.00	0.69	306.74	8,098.57	63.41	-22.14	-63.64	1.88	1.84	-55.08
8,125.00	0.95	304.00	8,123.56	63.61	-22.44	-63.85	1.05	1.04	-10.96
8,150.00	1.12	303.95	8,148.56	63.86	-22.81	-64.11	0.68	0.68	-0.20
8,175.00	1.22	302.89	8,173.56	64.15	-23.24	-64.39	0.41	0.40	-4.24
8,200.00	1.25	298.68	8,198.55	64.42	-23.70	-64.67	0.38	0.12	-16.84
8,225.00	1.20	299.01	8,223.54	64.68	-24.17	-64.94	0.20	-0.20	1.32
8,250.00	1.10	305.90	8,248.54	64.95	-24.59	-65.21	0.68	-0.40	27.56
8,275.00	1.09	299.67	8,273.53	65.20	-24.99	-65.47	0.48	-0.04	-24.92
8,300.00	1.18	307.22	8,298.53	65.48	-25.40	-65.75	0.70	0.36	30.20
8,325.00	1.21	308.31	8,323.52	65.80	-25.82	-66.07	0.15	0.12	4.36
8,350.00	1.27	307.58	8,348.52	66.13	-26.24	-66.41	0.25	0.24	-2.92
8,375.00	1.23	305.11	8,373.51	66.45	-26.68	-66.74	0.27	-0.16	-9.88
8,400.00	1.21	300.63	8,398.51	66.74	-27.13	-67.03	0.39	-0.08	-17.92
8,425.00	1.17	303.80	8,423.50	67.02	-27.57	-67.31	0.31	-0.16	12.68
8,450.00	1.08	298.39	8,448.50	67.27	-27.99	-67.57	0.56	-0.36	-21.64
8,475.00	0.87	308.83	8,473.49	67.50	-28.34	-67.81	1.10	-0.84	41.76
8,500.00	0.98	307.87	8,498.49	67.75	-28.66	-68.06	0.44	0.44	-3.84
8,525.00	1.00	314.11	8,523.49	68.04	-28.98	-68.35	0.44	0.08	24.96
8,550.00	0.96	318.50	8,548.48	68.35	-29.28	-68.66	0.34	-0.16	17.56
8,575.00	0.97	313.97	8,573.48	68.65	-29.57	-68.97	0.31	0.04	-18.12
8,600.00	0.88	305.31	8,598.47	68.91	-29.88	-69.23	0.66	-0.36	-34.64
8,625.00	0.68	314.96	8,623.47	69.12	-30.14	-69.45	0.95	-0.80	38.60
8,650.00	0.74	321.18	8,648.47	69.35	-30.35	-69.68	0.39	0.24	24.88
8,675.00	0.76	318.13	8,673.47	69.60	-30.56	-69.93	0.18	0.08	-12.20
8,700.00	0.61	320.16	8,698.47	69.83	-30.76	-70.16	0.61	-0.60	8.12
8,725.00	0.63	333.10	8,723.47	70.05	-30.90	-70.38	0.56	0.08	51.76
8,750.00	0.76	321.59	8,748.46	70.31	-31.07	-70.64	0.76	0.52	-46.04
8,775.00	0.71	315.15	8,773.46	70.55	-31.28	-70.88	0.39	-0.20	-25.76
8,800.00	0.57	328.03	8,798.46	70.76	-31.46	-71.10	0.80	-0.56	51.52
8,825.00	0.68	328.33	8,823.46	70.99	-31.60	-71.33	0.44	0.44	1.20
8,850.00	0.77	324.82	8,848.46	71.26	-31.77	-71.60	0.40	0.36	-14.04
8,875.00	0.67	313.66	8,873.45	71.49	-31.98	-71.84	0.69	-0.40	-44.64
8,900.00	0.57	316.67	8,898.45	71.69	-32.17	-72.03	0.42	-0.40	12.04
8,925.00	0.48	330.95	8,923.45	71.87	-32.30	-72.21	0.63	-0.36	57.12



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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	0.51	330.02	8,948.45	72.06	-32.41	-72.40	0.12	0.12	-3.72
8,975.00	0.66	331.66	8,973.45	72.28	-32.53	-72.63	0.60	0.60	6.56
9,000.00	0.60	314.34	8,998.45	72.50	-32.70	-72.85	0.80	-0.24	-69.28
9,025.00	0.50	313.14	9,023.45	72.66	-32.87	-73.01	0.40	-0.40	-4.80
9,050.00	0.44	302.26	9,048.45	72.79	-33.03	-73.14	0.43	-0.24	-43.52
9,075.00	0.42	308.30	9,073.45	72.90	-33.18	-73.25	0.20	-0.08	24.16
9,100.00	0.52	305.05	9,098.44	73.02	-33.35	-73.38	0.41	0.40	-13.00
9,125.00	0.66	286.44	9,123.44	73.12	-33.58	-73.48	0.94	0.56	-74.44
9,150.00	0.62	286.74	9,148.44	73.20	-33.85	-73.57	0.16	-0.16	1.20
9,175.00	0.67	269.68	9,173.44	73.24	-34.12	-73.61	0.79	0.20	-68.24
9,200.00	0.79	262.16	9,198.44	73.22	-34.44	-73.59	0.61	0.48	-30.08
9,225.00	0.81	251.40	9,223.44	73.14	-34.78	-73.51	0.61	0.08	-43.04
9,250.00	0.86	242.04	9,248.43	72.99	-35.11	-73.37	0.58	0.20	-37.44
9,275.00	0.87	242.53	9,273.43	72.82	-35.44	-73.20	0.05	0.04	1.96
9,300.00	0.86	239.79	9,298.43	72.64	-35.78	-73.02	0.17	-0.04	-10.96
9,325.00	1.00	245.71	9,323.42	72.45	-36.14	-72.84	0.68	0.56	23.68
9,350.00	1.12	237.18	9,348.42	72.23	-36.54	-72.62	0.79	0.48	-34.12
9,375.00	1.26	241.08	9,373.41	71.97	-36.99	-72.36	0.65	0.56	15.60
9,400.00	1.29	239.68	9,398.41	71.69	-37.47	-72.09	0.17	0.12	-5.60
9,425.00	1.31	238.88	9,423.40	71.40	-37.96	-71.81	0.11	0.08	-3.20
9,450.00	1.44	240.15	9,448.39	71.10	-38.47	-71.51	0.53	0.52	5.08
9,475.00	1.56	238.31	9,473.39	70.76	-39.04	-71.18	0.52	0.48	-7.36
9,500.00	1.87	241.56	9,498.37	70.39	-39.68	-70.81	1.30	1.24	13.00
9,525.00	1.92	242.12	9,523.36	70.00	-40.41	-70.43	0.21	0.20	2.24
9,550.00	1.90	246.52	9,548.35	69.64	-41.16	-70.08	0.59	-0.08	17.60
9,575.00	1.93	247.71	9,573.33	69.31	-41.93	-69.76	0.20	0.12	4.76
9,600.00	1.99	249.74	9,598.32	69.00	-42.73	-69.46	0.37	0.24	8.12
9,625.00	2.07	247.96	9,623.30	68.68	-43.56	-69.15	0.41	0.32	-7.12
9,650.00	2.17	248.07	9,648.29	68.34	-44.41	-68.81	0.40	0.40	0.44
9,675.00	2.10	244.77	9,673.27	67.96	-45.27	-68.45	0.57	-0.28	-13.20
9,700.00	2.05	243.74	9,698.25	67.57	-46.08	-68.07	0.25	-0.20	-4.12
9,725.00	1.98	245.86	9,723.24	67.20	-46.88	-67.70	0.41	-0.28	8.48
9,750.00	2.03	246.50	9,748.22	66.84	-47.68	-67.36	0.22	0.20	2.56
9,775.00	2.10	249.71	9,773.21	66.51	-48.51	-67.03	0.54	0.28	12.84
9,800.00	2.20	247.73	9,798.19	66.17	-49.39	-66.70	0.50	0.40	-7.92
9,825.00	2.25	247.85	9,823.17	65.80	-50.29	-66.34	0.20	0.20	0.48
9,850.00	2.25	243.67	9,848.15	65.40	-51.18	-65.95	0.66	0.00	-16.72
9,875.00	1.98	246.03	9,873.13	65.00	-52.01	-65.56	1.13	-1.08	9.44
9,900.00	2.07	247.49	9,898.12	64.66	-52.83	-65.22	0.41	0.36	5.84
9,925.00	2.15	244.12	9,923.10	64.28	-53.66	-64.86	0.59	0.32	-13.48
9,950.00	2.00	245.78	9,948.08	63.90	-54.48	-64.48	0.65	-0.60	6.64
9,975.00	2.08	247.47	9,973.07	63.54	-55.30	-64.14	0.40	0.32	6.76
10,000.00	2.17	246.68	9,998.05	63.18	-56.16	-63.79	0.38	0.36	-3.16
10,025.00	2.21	246.24	10,023.03	62.80	-57.03	-63.41	0.17	0.16	-1.76



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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	2.10	242.75	10,048.01	62.40	-57.88	-63.02	0.68	-0.44	-13.96
10,075.00	2.16	244.63	10,073.00	61.98	-58.71	-62.62	0.37	0.24	7.52
10,100.00	2.21	242.77	10,097.98	61.56	-59.57	-62.20	0.35	0.20	-7.44
10,125.00	2.01	241.95	10,122.96	61.14	-60.38	-61.78	0.81	-0.80	-3.28
10,150.00	2.22	241.18	10,147.95	60.70	-61.19	-61.35	0.85	0.84	-3.08
10,175.00	2.30	237.73	10,172.93	60.19	-62.04	-60.86	0.63	0.32	-13.80
10,200.00	2.28	237.36	10,197.91	59.66	-62.88	-60.34	0.10	-0.08	-1.48
10,225.00	2.27	240.48	10,222.89	59.15	-63.73	-59.83	0.50	-0.04	12.48
10,250.00	2.53	239.66	10,247.86	58.62	-64.64	-59.32	1.05	1.04	-3.28
10,275.00	2.59	238.40	10,272.84	58.05	-65.60	-58.76	0.33	0.24	-5.04
10,300.00	2.61	236.71	10,297.81	57.44	-66.56	-58.16	0.32	0.08	-6.76
10,325.00	2.64	237.76	10,322.79	56.82	-67.52	-57.55	0.23	0.12	4.20
10,350.00	2.70	238.62	10,347.76	56.21	-68.51	-56.95	0.29	0.24	3.44
10,375.00	2.69	241.67	10,372.73	55.62	-69.53	-56.37	0.57	-0.04	12.20
10,400.00	2.90	236.79	10,397.70	55.00	-70.57	-55.76	1.27	0.84	-19.52
10,425.00	2.94	239.46	10,422.67	54.33	-71.65	-55.10	0.57	0.16	10.68
10,450.00	3.08	237.58	10,447.64	53.64	-72.77	-54.42	0.69	0.56	-7.52
10,475.00	3.17	235.17	10,472.60	52.88	-73.91	-53.68	0.64	0.36	-9.64
10,500.00	3.29	236.22	10,497.56	52.09	-75.07	-52.90	0.54	0.48	4.20
10,525.00	3.20	235.32	10,522.52	51.29	-76.24	-52.12	0.41	-0.36	-3.60
10,550.00	3.36	233.79	10,547.48	50.46	-77.41	-51.30	0.73	0.64	-6.12
10,575.00	3.36	235.27	10,572.43	49.61	-78.60	-50.46	0.35	0.00	5.92
10,600.00	3.22	234.40	10,597.39	48.79	-79.77	-49.65	0.59	-0.56	-3.48
10,625.00	3.38	232.70	10,622.35	47.93	-80.93	-48.81	0.75	0.64	-6.80
10,650.00	3.26	230.91	10,647.31	47.04	-82.07	-47.92	0.63	-0.48	-7.16
10,675.00	3.11	229.64	10,672.27	46.15	-83.14	-47.05	0.66	-0.60	-5.08
10,700.00	3.07	228.22	10,697.24	45.27	-84.15	-46.17	0.35	-0.16	-5.68
10,725.00	3.08	228.07	10,722.20	44.37	-85.15	-45.29	0.05	0.04	-0.60
10,750.00	3.14	224.95	10,747.16	43.44	-86.13	-44.37	0.72	0.24	-12.48
10,775.00	3.14	225.80	10,772.12	42.48	-87.11	-43.42	0.19	0.00	3.40
10,800.00	3.14	222.14	10,797.09	41.49	-88.06	-42.44	0.80	0.00	-14.64
10,825.00	3.22	220.00	10,822.05	40.45	-88.97	-41.41	0.57	0.32	-8.56
10,850.00	3.22	216.21	10,847.01	39.34	-89.84	-40.31	0.85	0.00	-15.16
10,875.00	3.28	213.74	10,871.97	38.18	-90.65	-39.16	0.61	0.24	-9.88
10,900.00	3.37	210.12	10,896.93	36.95	-91.41	-37.94	0.91	0.36	-14.48
10,925.00	3.45	205.50	10,921.88	35.63	-92.11	-36.63	1.14	0.32	-18.48
10,950.00	3.49	200.87	10,946.84	34.24	-92.70	-35.25	1.13	0.16	-18.52
10,975.00	3.60	198.03	10,971.79	32.79	-93.22	-33.79	0.83	0.44	-11.36
11,000.00	3.55	196.74	10,996.74	31.30	-93.68	-32.31	0.38	-0.20	-5.16
11,025.00	3.30	193.27	11,021.70	29.86	-94.07	-30.87	1.30	-1.00	-13.88
11,050.00	3.10	190.55	11,046.66	28.49	-94.36	-29.51	1.00	-0.80	-10.88
11,075.00	2.84	187.90	11,071.62	27.22	-94.57	-28.24	1.18	-1.04	-10.60
11,100.00	2.98	188.89	11,096.59	25.96	-94.75	-26.98	0.59	0.56	3.96



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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)
11,125.00	2.82	188.33	11,121.56	24.71	-94.94	-25.74	0.65	-0.64	-2.24
11,150.00	2.90	192.63	11,146.53	23.48	-95.17	-24.51	0.92	0.32	17.20
11,175.00	3.06	189.91	11,171.49	22.21	-95.42	-23.24	0.85	0.64	-10.88
11,200.00	3.07	190.10	11,196.46	20.89	-95.65	-21.93	0.06	0.04	0.76
11,225.00	3.07	189.29	11,221.42	19.57	-95.88	-20.61	0.17	0.00	-3.24
11,250.00	3.09	189.08	11,246.39	18.25	-96.09	-19.29	0.09	0.08	-0.84
11,275.00	3.13	188.82	11,271.35	16.91	-96.31	-17.95	0.17	0.16	-1.04
11,300.00	3.13	187.78	11,296.31	15.56	-96.50	-16.60	0.23	0.00	-4.16
11,325.00	3.19	187.70	11,321.27	14.19	-96.69	-15.24	0.24	0.24	-0.32
11,350.00	3.19	186.63	11,346.24	12.81	-96.86	-13.86	0.24	0.00	-4.28
11,375.00	3.17	186.47	11,371.20	11.43	-97.02	-12.48	0.09	-0.08	-0.64
11,400.00	3.16	185.04	11,396.16	10.06	-97.16	-11.11	0.32	-0.04	-5.72
11,425.00	3.08	187.68	11,421.12	8.71	-97.31	-9.76	0.66	-0.32	10.56
11,450.00	3.19	187.52	11,446.08	7.35	-97.49	-8.41	0.44	0.44	-0.64
11,475.00	3.18	187.20	11,471.05	5.98	-97.67	-7.03	0.08	-0.04	-1.28
11,500.00	3.16	185.74	11,496.01	4.60	-97.82	-5.66	0.33	-0.08	-5.84
11,525.00	3.25	185.41	11,520.97	3.21	-97.96	-4.27	0.37	0.36	-1.32
11,550.00	3.29	183.60	11,545.93	1.79	-98.07	-2.85	0.44	0.16	-7.24
11,575.00	3.65	179.01	11,570.88	0.28	-98.10	-1.34	1.82	1.44	-18.36
11,600.00	3.38	182.83	11,595.84	-1.25	-98.12	0.19	1.43	-1.08	15.28
11600' MD: Final Gyro Survey - 11600' Keeper Gyro Tie in									
11,737.00	2.91	173.37	11,732.63	-8.74	-97.92	7.68	0.51	-0.34	-6.91
11737' MD: Begin DrillTech MWD									
11,772.00	2.90	171.13	11,767.58	-10.50	-97.68	9.44	0.33	-0.03	-6.40
11,820.00	7.97	194.64	11,815.36	-14.92	-98.34	13.86	11.32	10.56	48.98
11,867.00	14.49	196.34	11,861.43	-23.73	-100.82	22.63	13.89	13.87	3.62
11,915.00	17.72	194.90	11,907.54	-36.55	-104.39	35.42	6.78	6.73	-3.00
11,962.00	21.56	191.75	11,951.80	-51.93	-107.99	50.75	8.47	8.17	-6.70
12,010.00	26.12	187.65	11,995.70	-71.04	-111.19	69.84	10.10	9.50	-8.54
12,057.00	32.09	185.28	12,036.75	-93.75	-113.72	92.51	12.93	12.70	-5.04
12,077.27	34.24	184.15	12,053.71	-104.80	-114.63	103.55	11.02	10.59	-5.58
12077' MD: Hardline Crossing FNL									
12,105.00	37.19	182.79	12,076.23	-120.95	-115.60	119.70	11.02	10.65	-4.90
12,152.00	42.06	180.59	12,112.42	-150.90	-116.45	149.64	10.78	10.36	-4.68
12,200.00	46.77	179.41	12,146.70	-184.49	-116.44	183.22	9.96	9.81	-2.46
12,247.00	52.41	179.24	12,177.15	-220.26	-116.02	218.99	12.00	12.00	-0.36
12,295.00	57.76	178.81	12,204.61	-259.60	-115.34	258.33	11.17	11.15	-0.90
12,342.00	62.66	178.67	12,227.96	-300.36	-114.44	299.11	10.43	10.43	-0.30
12,390.00	67.57	179.48	12,248.15	-343.89	-113.75	342.64	10.34	10.23	1.69
12,437.00	72.16	180.18	12,264.33	-388.00	-113.62	386.75	9.87	9.77	1.49
12,485.00	76.30	180.07	12,277.37	-434.19	-113.72	432.93	8.63	8.63	-0.23
12,532.00	80.04	180.09	12,287.00	-480.18	-113.78	478.92	7.96	7.96	0.04
12,580.00	83.70	180.14	12,293.79	-527.69	-113.88	526.43	7.63	7.63	0.10
12,614.00	86.06	179.98	12,296.82	-561.55	-113.92	560.28	6.96	6.94	-0.47



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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)
12,693.00	87.30	179.37	12,301.40	-640.41	-113.47	639.15	1.75	1.57	-0.77
12,788.00	87.24	179.62	12,305.92	-735.30	-112.63	734.04	0.27	-0.06	0.26
12,883.00	86.48	179.43	12,311.13	-830.16	-111.85	828.90	0.82	-0.80	-0.20
12,977.00	85.80	180.28	12,317.45	-923.94	-111.61	922.68	1.16	-0.72	0.90
13,071.00	86.78	179.23	12,323.54	-1,017.74	-111.21	1,016.48	1.53	1.04	-1.12
13,157.00	88.07	179.39	12,327.40	-1,103.65	-110.17	1,102.39	1.51	1.50	0.19
13,252.00	88.71	179.14	12,330.07	-1,198.60	-108.95	1,197.35	0.72	0.67	-0.26
13,347.00	90.57	179.15	12,330.67	-1,293.58	-107.54	1,292.34	1.96	1.96	0.01
13,441.00	90.43	179.45	12,329.85	-1,387.57	-106.39	1,386.34	0.35	-0.15	0.32
13,535.00	90.74	180.88	12,328.89	-1,481.57	-106.66	1,480.32	1.56	0.33	1.52
13,630.00	90.27	181.42	12,328.05	-1,576.54	-108.56	1,575.27	0.75	-0.49	0.57
13,724.00	90.93	180.32	12,327.06	-1,670.52	-109.99	1,669.24	1.36	0.70	-1.17
13,819.00	90.13	180.14	12,326.19	-1,765.52	-110.37	1,764.22	0.86	-0.84	-0.19
13,914.00	90.01	180.37	12,326.07	-1,860.52	-110.80	1,859.24	0.27	-0.13	0.24
14,008.00	90.54	179.97	12,325.62	-1,954.51	-111.08	1,953.20	0.71	0.56	-0.43
14,103.00	90.39	179.99	12,324.85	-2,049.51	-111.04	2,048.19	0.16	-0.16	0.02
14,197.00	91.44	179.60	12,323.35	-2,143.50	-110.71	2,142.17	1.19	1.12	-0.41
14,292.00	91.69	179.93	12,320.75	-2,238.46	-110.32	2,237.14	0.44	0.26	0.35
14,387.00	90.43	178.24	12,318.99	-2,333.43	-108.80	2,332.11	2.22	-1.33	-1.78
14,481.00	89.80	178.45	12,318.81	-2,427.39	-106.08	2,426.10	0.71	-0.67	0.22
14,575.00	89.68	178.78	12,319.23	-2,521.36	-103.81	2,520.09	0.37	-0.13	0.35
14,669.00	89.40	178.88	12,319.99	-2,615.34	-101.89	2,614.08	0.32	-0.30	0.11
14,764.00	89.07	179.13	12,321.25	-2,710.31	-100.24	2,709.07	0.44	-0.35	0.26
14,858.00	89.74	177.68	12,322.23	-2,804.27	-97.63	2,803.05	1.70	0.71	-1.54
14,952.00	89.87	177.03	12,322.55	-2,898.17	-93.29	2,896.99	0.71	0.14	-0.69
15,046.00	91.06	178.76	12,321.79	-2,992.10	-89.84	2,990.95	2.23	1.27	1.84
15,141.00	91.13	179.55	12,319.97	-3,087.07	-88.44	3,085.93	0.83	0.07	0.83
15,235.00	88.37	180.09	12,320.38	-3,181.06	-88.14	3,179.92	2.99	-2.94	0.57
15,329.00	86.57	178.62	12,324.53	-3,274.95	-87.08	3,273.82	2.47	-1.91	-1.56
15,423.00	87.36	178.33	12,329.51	-3,368.79	-84.59	3,367.67	0.90	0.84	-0.31
15,517.00	89.94	178.05	12,331.72	-3,462.71	-81.62	3,461.62	2.76	2.74	-0.30
15,611.00	89.63	177.56	12,332.08	-3,556.64	-78.02	3,555.58	0.62	-0.33	-0.52
15,706.00	88.35	177.08	12,333.75	-3,651.51	-73.58	3,650.50	1.44	-1.35	-0.51
15,801.00	89.22	177.33	12,335.77	-3,746.38	-68.95	3,745.41	0.95	0.92	0.26
15,895.00	90.08	177.59	12,336.34	-3,840.28	-64.78	3,839.36	0.96	0.91	0.28
15,989.00	92.09	178.32	12,334.56	-3,934.20	-61.43	3,933.31	2.27	2.14	0.78
16,083.00	92.05	178.92	12,331.16	-4,028.11	-59.16	4,027.24	0.64	-0.04	0.64
16,178.00	93.30	179.69	12,326.73	-4,123.00	-58.01	4,122.13	1.54	1.32	0.81
16,274.00	92.36	179.47	12,321.99	-4,218.88	-57.31	4,218.01	1.01	-0.98	-0.23
16,366.00	91.66	179.73	12,318.76	-4,310.82	-56.67	4,309.95	0.81	-0.76	0.28
16,460.00	92.96	179.79	12,314.98	-4,404.74	-56.27	4,403.87	1.38	1.38	0.06
16,555.00	92.62	180.48	12,310.35	-4,499.63	-56.50	4,498.75	0.81	-0.36	0.73
16,649.00	86.22	178.16	12,311.30	-4,593.56	-55.38	4,592.69	7.24	-6.81	-2.47



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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)
16,743.00	86.08	177.84	12,317.61	-4,687.29	-52.11	4,686.45	0.37	-0.15	-0.34
16,781.82	86.48	177.76	12,320.13	-4,726.00	-50.62	4,725.18	1.04	1.02	-0.20
16782'MD: Hardline Crossing FSL									
16,838.00	87.05	177.65	12,323.31	-4,782.05	-48.38	4,781.24	1.04	1.02	-0.20
16838'MD Final DrillTech MWD									
16,912.00	87.05	177.65	12,327.11	-4,855.89	-45.35	4,855.11	0.00	0.00	0.00
16912'MD: Projection to Total Depth									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
100.00	100.00	0.10	0.33	100'MD: Begin SDI Keeper Gyro Survey	
11,600.00	11,595.84	-1.25	-98.12	11600'MD: Final Gyro Survey	
11,600.00	11,595.84	-1.25	-98.12	11600' Keeper Gyro Tie in	
11,737.00	11,732.63	-8.74	-97.92	11737'MD: Begin DrillTech MWD	
12,077.27	12,053.71	-104.80	-114.63	12077'MD: Hardline Crossing FNL	
16,781.82	12,320.13	-4,726.00	-50.62	16782'MD: Hardline Crossing FSL	
16,838.00	12,323.31	-4,782.05	-48.38	16838'MD Final DrillTech MWD	
16,912.00	12,327.11	-4,855.89	-45.35	16912'MD: Projection to Total Depth	

Checked By: _____	Approved By: _____	Date: _____
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Concho Operating

Lea County, NM (Nad 27)

White Falcon 16 State

White Falcon 16 State #13H

#13H

Design: #13H

Survey Report - Geographic

23 February, 2018



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	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 #13H					
Well Position	+N/-S	0.00 ft	Northing:	414,833.80 usft	Latitude:	32.137°N
	+E/-W	0.00 ft	Easting:	795,694.00 usft	Longitude:	103.378°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,257.00 ft

Wellbore	#13H				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	9/15/2017	6.83	60.01	47,882.48682505

Design	#13H				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	179.38	

Survey Program	Date 2/23/2018				
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
100.00	11,600.00	Keeper Gyro Surveys (#13H)	Keeper	Keeper Standard Rate Gyro	
11,737.00	16,912.00	DrilTech MWD - Tied to Gyro (#13H)	MWD	MWD - Standard	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map			
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting	Latitude	Longitude	
(ft)			(ft)			(usft)	(usft)			
0.00	0.00	0.00	0.00	0.00	0.00	414,833.80	795,694.00	32.137°N	103.378°W	
100.00	0.40	73.34	100.00	0.10	0.33	414,833.90	795,694.33	32.137°N	103.378°W	
100'MD: Begin SDI Keeper Gyro Survey										
125.00	0.46	60.46	125.00	0.17	0.51	414,833.97	795,694.50	32.137°N	103.378°W	
150.00	0.47	64.64	150.00	0.27	0.69	414,834.07	795,694.68	32.137°N	103.378°W	
175.00	0.43	60.42	175.00	0.36	0.86	414,834.16	795,694.86	32.137°N	103.378°W	
200.00	0.56	71.97	200.00	0.44	1.06	414,834.24	795,695.06	32.137°N	103.378°W	
225.00	0.69	60.31	224.99	0.55	1.30	414,834.35	795,695.30	32.137°N	103.378°W	
250.00	0.63	70.25	249.99	0.68	1.56	414,834.47	795,695.56	32.137°N	103.378°W	
275.00	0.66	73.43	274.99	0.76	1.83	414,834.56	795,695.83	32.137°N	103.378°W	
300.00	0.73	69.29	299.99	0.86	2.12	414,834.66	795,696.12	32.137°N	103.378°W	



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
325.00	0.88	72.25	324.99	0.98	2.45	414,834.77	795,696.45	32.137°N	103.378°W
350.00	0.89	77.16	349.98	1.08	2.82	414,834.88	795,696.82	32.137°N	103.378°W
375.00	1.07	75.72	374.98	1.18	3.24	414,834.98	795,697.24	32.137°N	103.378°W
400.00	1.14	78.35	399.98	1.29	3.71	414,835.08	795,697.71	32.137°N	103.378°W
425.00	1.15	79.76	424.97	1.38	4.20	414,835.18	795,698.20	32.137°N	103.378°W
450.00	1.13	84.48	449.97	1.45	4.69	414,835.25	795,698.69	32.137°N	103.378°W
475.00	1.01	75.53	474.96	1.53	5.15	414,835.33	795,699.15	32.137°N	103.378°W
500.00	1.06	81.28	499.96	1.62	5.59	414,835.42	795,699.59	32.137°N	103.378°W
525.00	1.07	80.66	524.95	1.69	6.05	414,835.49	795,700.05	32.137°N	103.378°W
550.00	1.07	78.85	549.95	1.77	6.51	414,835.57	795,700.51	32.137°N	103.378°W
575.00	1.17	75.03	574.94	1.88	6.99	414,835.68	795,700.98	32.137°N	103.378°W
600.00	1.25	71.20	599.94	2.04	7.49	414,835.84	795,701.49	32.137°N	103.378°W
625.00	1.38	69.96	624.93	2.23	8.03	414,836.03	795,702.03	32.137°N	103.378°W
650.00	1.21	74.09	649.93	2.41	8.57	414,836.20	795,702.57	32.137°N	103.378°W
675.00	1.19	63.81	674.92	2.59	9.05	414,836.39	795,703.05	32.137°N	103.378°W
700.00	1.33	58.39	699.91	2.86	9.53	414,836.66	795,703.53	32.137°N	103.378°W
725.00	1.78	54.00	724.90	3.24	10.10	414,837.04	795,704.09	32.137°N	103.378°W
750.00	1.93	46.23	749.89	3.76	10.71	414,837.56	795,704.71	32.137°N	103.378°W
775.00	2.11	43.22	774.88	4.38	11.33	414,838.18	795,705.33	32.137°N	103.378°W
800.00	2.13	45.97	799.86	5.04	11.98	414,838.84	795,705.98	32.137°N	103.378°W
825.00	2.24	42.14	824.84	5.73	12.64	414,839.53	795,706.64	32.137°N	103.378°W
850.00	2.37	39.27	849.82	6.49	13.30	414,840.29	795,707.30	32.137°N	103.378°W
875.00	2.36	37.56	874.80	7.30	13.94	414,841.10	795,707.94	32.137°N	103.378°W
900.00	2.32	36.60	899.78	8.11	14.56	414,841.91	795,708.55	32.137°N	103.378°W
925.00	2.45	37.85	924.76	8.94	15.18	414,842.74	795,709.18	32.137°N	103.378°W
950.00	2.62	35.81	949.73	9.83	15.85	414,843.63	795,709.84	32.137°N	103.378°W
975.00	3.04	36.08	974.70	10.83	16.57	414,844.63	795,710.57	32.137°N	103.378°W
1,000.00	3.01	37.08	999.67	11.89	17.36	414,845.68	795,711.36	32.137°N	103.378°W
1,025.00	2.98	37.94	1,024.63	12.92	18.15	414,846.72	795,712.15	32.137°N	103.378°W
1,050.00	2.96	35.86	1,049.60	13.96	18.93	414,847.76	795,712.93	32.137°N	103.378°W
1,075.00	2.97	36.47	1,074.57	15.00	19.69	414,848.80	795,713.69	32.137°N	103.378°W
1,100.00	2.98	35.54	1,099.53	16.05	20.46	414,849.85	795,714.45	32.137°N	103.378°W
1,125.00	2.95	35.53	1,124.50	17.10	21.21	414,850.90	795,715.21	32.137°N	103.378°W
1,150.00	2.86	34.98	1,149.47	18.14	21.94	414,851.94	795,715.94	32.137°N	103.378°W
1,175.00	2.72	34.28	1,174.44	19.14	22.63	414,852.94	795,716.63	32.137°N	103.378°W
1,200.00	2.64	29.41	1,199.41	20.13	23.25	414,853.93	795,717.25	32.137°N	103.378°W
1,225.00	2.33	14.47	1,224.39	21.12	23.66	414,854.92	795,717.66	32.137°N	103.378°W
1,250.00	2.16	352.59	1,249.37	22.08	23.72	414,855.88	795,717.72	32.137°N	103.378°W
1,275.00	2.25	332.60	1,274.35	22.99	23.44	414,856.79	795,717.44	32.137°N	103.378°W
1,300.00	2.88	316.66	1,299.32	23.88	22.78	414,857.68	795,716.78	32.137°N	103.378°W
1,325.00	3.16	314.93	1,324.29	24.82	21.86	414,858.62	795,715.86	32.137°N	103.378°W
1,350.00	3.06	315.64	1,349.25	25.79	20.91	414,859.59	795,714.91	32.137°N	103.378°W
1,375.00	3.00	315.84	1,374.22	26.73	19.98	414,860.53	795,713.98	32.137°N	103.378°W
1,400.00	3.04	310.90	1,399.18	27.64	19.03	414,861.43	795,713.03	32.137°N	103.378°W
1,425.00	2.75	312.04	1,424.15	28.47	18.08	414,862.27	795,712.08	32.137°N	103.378°W
1,450.00	1.99	310.63	1,449.13	29.16	17.31	414,862.95	795,711.30	32.137°N	103.378°W
1,475.00	1.57	309.22	1,474.12	29.65	16.71	414,863.45	795,710.71	32.137°N	103.378°W
1,500.00	1.30	307.16	1,499.11	30.04	16.22	414,863.84	795,710.22	32.137°N	103.378°W
1,525.00	1.10	310.43	1,524.10	30.37	15.81	414,864.17	795,709.81	32.137°N	103.378°W
1,550.00	1.06	310.33	1,549.10	30.67	15.45	414,864.47	795,709.45	32.137°N	103.378°W
1,575.00	1.09	309.71	1,574.10	30.98	15.09	414,864.78	795,709.09	32.137°N	103.378°W
1,600.00	1.07	313.71	1,599.09	31.29	14.74	414,865.09	795,708.74	32.137°N	103.378°W
1,625.00	0.98	310.75	1,624.09	31.59	14.41	414,865.39	795,708.41	32.137°N	103.378°W
1,650.00	0.97	310.10	1,649.08	31.87	14.09	414,865.67	795,708.09	32.137°N	103.378°W
1,675.00	0.83	309.80	1,674.08	32.12	13.79	414,865.92	795,707.78	32.137°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
1,700.00	0.87	307.15	1,699.08	32.35	13.50	414,866.15	795,707.49	32.137°N	103.378°W	
1,725.00	0.93	303.11	1,724.07	32.57	13.18	414,866.37	795,707.17	32.137°N	103.378°W	
1,750.00	0.88	306.82	1,749.07	32.80	12.85	414,866.60	795,706.85	32.137°N	103.378°W	
1,775.00	0.88	303.96	1,774.07	33.02	12.54	414,866.82	795,706.54	32.137°N	103.378°W	
1,800.00	1.01	304.33	1,799.06	33.25	12.20	414,867.05	795,706.20	32.137°N	103.378°W	
1,825.00	0.99	305.26	1,824.06	33.50	11.84	414,867.30	795,705.84	32.137°N	103.378°W	
1,850.00	1.01	306.93	1,849.06	33.76	11.49	414,867.56	795,705.48	32.137°N	103.378°W	
1,875.00	1.11	310.55	1,874.05	34.05	11.13	414,867.85	795,705.12	32.137°N	103.378°W	
1,900.00	1.05	304.84	1,899.05	34.34	10.75	414,868.14	795,704.75	32.137°N	103.378°W	
1,925.00	1.02	299.18	1,924.04	34.58	10.37	414,868.38	795,704.37	32.137°N	103.378°W	
1,950.00	1.06	294.68	1,949.04	34.78	9.97	414,868.58	795,703.97	32.137°N	103.378°W	
1,975.00	0.95	293.92	1,974.04	34.96	9.57	414,868.76	795,703.57	32.137°N	103.378°W	
2,000.00	1.00	291.94	1,999.03	35.13	9.18	414,868.93	795,703.17	32.137°N	103.378°W	
2,025.00	1.01	288.18	2,024.03	35.28	8.76	414,869.08	795,702.76	32.137°N	103.378°W	
2,050.00	0.96	289.47	2,049.03	35.42	8.36	414,869.22	795,702.36	32.137°N	103.378°W	
2,075.00	1.00	286.73	2,074.02	35.55	7.95	414,869.35	795,701.95	32.137°N	103.378°W	
2,100.00	0.94	285.57	2,099.02	35.67	7.55	414,869.47	795,701.54	32.137°N	103.378°W	
2,125.00	1.01	286.51	2,124.01	35.79	7.14	414,869.58	795,701.13	32.137°N	103.378°W	
2,150.00	1.05	285.79	2,149.01	35.91	6.70	414,869.71	795,700.70	32.137°N	103.378°W	
2,175.00	1.08	285.58	2,174.01	36.04	6.26	414,869.84	795,700.26	32.137°N	103.378°W	
2,200.00	1.00	285.86	2,199.00	36.16	5.82	414,869.96	795,699.82	32.137°N	103.378°W	
2,225.00	0.99	289.63	2,224.00	36.29	5.41	414,870.09	795,699.41	32.137°N	103.378°W	
2,250.00	0.98	291.45	2,248.99	36.44	5.00	414,870.24	795,699.00	32.137°N	103.378°W	
2,275.00	0.98	290.15	2,273.99	36.59	4.61	414,870.39	795,698.60	32.137°N	103.378°W	
2,300.00	0.95	288.77	2,298.99	36.73	4.21	414,870.53	795,698.21	32.137°N	103.378°W	
2,325.00	1.00	287.38	2,323.98	36.87	3.80	414,870.67	795,697.80	32.137°N	103.378°W	
2,350.00	0.98	288.21	2,348.98	37.00	3.39	414,870.80	795,697.39	32.137°N	103.378°W	
2,375.00	0.98	294.42	2,373.98	37.15	2.99	414,870.95	795,696.99	32.137°N	103.378°W	
2,400.00	1.00	295.15	2,398.97	37.33	2.60	414,871.13	795,696.60	32.137°N	103.378°W	
2,425.00	0.94	294.81	2,423.97	37.51	2.22	414,871.31	795,696.22	32.137°N	103.378°W	
2,450.00	1.00	294.82	2,448.97	37.69	1.83	414,871.49	795,695.83	32.137°N	103.378°W	
2,475.00	1.03	297.54	2,473.96	37.89	1.44	414,871.69	795,695.44	32.137°N	103.378°W	
2,500.00	1.08	301.65	2,498.96	38.11	1.04	414,871.91	795,695.04	32.137°N	103.378°W	
2,525.00	1.05	303.88	2,523.95	38.37	0.65	414,872.16	795,694.64	32.137°N	103.378°W	
2,550.00	0.99	304.04	2,548.95	38.61	0.28	414,872.41	795,694.28	32.137°N	103.378°W	
2,575.00	0.95	307.93	2,573.95	38.86	-0.06	414,872.66	795,693.93	32.137°N	103.378°W	
2,600.00	0.92	306.50	2,598.94	39.11	-0.39	414,872.91	795,693.61	32.137°N	103.378°W	
2,625.00	0.96	307.31	2,623.94	39.36	-0.72	414,873.15	795,693.28	32.137°N	103.378°W	
2,650.00	0.99	309.76	2,648.94	39.62	-1.05	414,873.42	795,692.95	32.137°N	103.378°W	
2,675.00	0.88	308.53	2,673.93	39.88	-1.37	414,873.68	795,692.63	32.137°N	103.378°W	
2,700.00	0.90	316.25	2,698.93	40.14	-1.65	414,873.94	795,692.35	32.137°N	103.378°W	
2,725.00	0.79	318.05	2,723.93	40.41	-1.90	414,874.21	795,692.09	32.137°N	103.378°W	
2,750.00	0.87	319.90	2,748.92	40.68	-2.14	414,874.48	795,691.86	32.137°N	103.378°W	
2,775.00	0.81	321.71	2,773.92	40.97	-2.37	414,874.77	795,691.63	32.137°N	103.378°W	
2,800.00	0.80	318.53	2,798.92	41.24	-2.60	414,875.04	795,691.40	32.137°N	103.378°W	
2,825.00	0.78	321.78	2,823.92	41.50	-2.82	414,875.30	795,691.18	32.137°N	103.378°W	
2,850.00	0.68	317.99	2,848.91	41.74	-3.02	414,875.54	795,690.98	32.137°N	103.378°W	
2,875.00	0.46	311.04	2,873.91	41.92	-3.20	414,875.72	795,690.80	32.137°N	103.378°W	
2,900.00	0.46	319.02	2,898.91	42.06	-3.34	414,875.86	795,690.66	32.137°N	103.378°W	
2,925.00	0.51	311.94	2,923.91	42.21	-3.49	414,876.01	795,690.51	32.137°N	103.378°W	
2,950.00	0.50	311.49	2,948.91	42.36	-3.65	414,876.16	795,690.35	32.137°N	103.378°W	
2,975.00	0.44	306.30	2,973.91	42.49	-3.81	414,876.29	795,690.19	32.137°N	103.378°W	
3,000.00	0.50	308.23	2,998.91	42.61	-3.97	414,876.41	795,690.02	32.137°N	103.378°W	
3,025.00	0.50	311.33	3,023.91	42.75	-4.14	414,876.55	795,689.86	32.137°N	103.378°W	
3,050.00	0.43	312.94	3,048.91	42.89	-4.29	414,876.69	795,689.71	32.137°N	103.378°W	



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,075.00	0.44	310.02	3,073.91	43.01	-4.43	414,876.81	795,689.56	32.137°N	103.378°W
3,100.00	0.50	312.69	3,098.91	43.15	-4.59	414,876.95	795,689.41	32.137°N	103.378°W
3,125.00	0.46	313.42	3,123.90	43.29	-4.74	414,877.09	795,689.26	32.137°N	103.378°W
3,150.00	0.35	339.90	3,148.90	43.43	-4.84	414,877.23	795,689.16	32.137°N	103.378°W
3,175.00	0.37	340.45	3,173.90	43.58	-4.89	414,877.38	795,689.10	32.137°N	103.378°W
3,200.00	0.36	339.88	3,198.90	43.73	-4.95	414,877.53	795,689.05	32.137°N	103.378°W
3,225.00	0.38	351.40	3,223.90	43.89	-4.99	414,877.69	795,689.01	32.137°N	103.378°W
3,250.00	0.37	340.32	3,248.90	44.04	-5.03	414,877.84	795,688.97	32.137°N	103.378°W
3,275.00	0.36	354.30	3,273.90	44.20	-5.06	414,878.00	795,688.94	32.137°N	103.378°W
3,300.00	0.55	348.79	3,298.90	44.39	-5.09	414,878.19	795,688.90	32.137°N	103.378°W
3,325.00	0.55	348.41	3,323.90	44.63	-5.14	414,878.43	795,688.86	32.137°N	103.378°W
3,350.00	0.67	342.04	3,348.90	44.89	-5.21	414,878.69	795,688.79	32.137°N	103.378°W
3,375.00	0.87	336.58	3,373.90	45.20	-5.33	414,879.00	795,688.67	32.137°N	103.378°W
3,400.00	0.76	325.70	3,398.89	45.51	-5.50	414,879.31	795,688.50	32.137°N	103.378°W
3,425.00	0.96	331.44	3,423.89	45.83	-5.69	414,879.63	795,688.31	32.137°N	103.378°W
3,450.00	0.92	336.42	3,448.89	46.20	-5.87	414,880.00	795,688.12	32.137°N	103.378°W
3,475.00	0.90	336.50	3,473.88	46.56	-6.03	414,880.36	795,687.97	32.137°N	103.378°W
3,500.00	0.81	338.47	3,498.88	46.91	-6.17	414,880.71	795,687.82	32.137°N	103.378°W
3,525.00	0.72	332.79	3,523.88	47.21	-6.31	414,881.01	795,687.69	32.137°N	103.378°W
3,550.00	0.65	334.00	3,548.88	47.48	-6.45	414,881.28	795,687.55	32.137°N	103.378°W
3,575.00	0.73	323.47	3,573.87	47.73	-6.60	414,881.53	795,687.40	32.137°N	103.378°W
3,600.00	0.63	314.81	3,598.87	47.96	-6.79	414,881.76	795,687.20	32.137°N	103.378°W
3,625.00	0.85	279.21	3,623.87	48.09	-7.08	414,881.88	795,686.92	32.137°N	103.378°W
3,650.00	1.11	271.06	3,648.87	48.12	-7.50	414,881.92	795,686.50	32.137°N	103.378°W
3,675.00	1.29	269.26	3,673.86	48.12	-8.02	414,881.92	795,685.97	32.137°N	103.378°W
3,700.00	0.87	285.84	3,698.86	48.17	-8.49	414,881.97	795,685.51	32.137°N	103.378°W
3,725.00	1.15	269.62	3,723.85	48.22	-8.92	414,882.02	795,685.08	32.137°N	103.378°W
3,750.00	1.36	263.30	3,748.85	48.18	-9.47	414,881.98	795,684.53	32.137°N	103.378°W
3,775.00	1.22	268.44	3,773.84	48.14	-10.03	414,881.94	795,683.97	32.137°N	103.378°W
3,800.00	1.32	264.71	3,798.84	48.11	-10.58	414,881.91	795,683.42	32.137°N	103.378°W
3,825.00	1.45	267.48	3,823.83	48.07	-11.18	414,881.87	795,682.81	32.137°N	103.378°W
3,850.00	1.48	267.88	3,848.82	48.04	-11.82	414,881.84	795,682.18	32.137°N	103.378°W
3,875.00	1.50	266.54	3,873.81	48.01	-12.47	414,881.81	795,681.53	32.137°N	103.378°W
3,900.00	1.50	268.83	3,898.80	47.98	-13.12	414,881.78	795,680.87	32.137°N	103.378°W
3,925.00	1.44	267.80	3,923.79	47.96	-13.77	414,881.76	795,680.23	32.137°N	103.378°W
3,950.00	1.52	265.55	3,948.79	47.93	-14.41	414,881.73	795,679.59	32.137°N	103.378°W
3,975.00	1.49	267.27	3,973.78	47.88	-15.07	414,881.68	795,678.93	32.137°N	103.378°W
4,000.00	0.94	268.24	3,998.77	47.86	-15.59	414,881.66	795,678.40	32.137°N	103.378°W
4,025.00	0.40	278.73	4,023.77	47.87	-15.89	414,881.67	795,678.11	32.137°N	103.378°W
4,050.00	0.22	335.50	4,048.77	47.93	-15.99	414,881.73	795,678.01	32.137°N	103.378°W
4,075.00	0.24	44.51	4,073.77	48.01	-15.98	414,881.81	795,678.02	32.137°N	103.378°W
4,100.00	0.27	32.13	4,098.77	48.10	-15.91	414,881.89	795,678.09	32.137°N	103.378°W
4,125.00	0.33	18.30	4,123.77	48.21	-15.85	414,882.01	795,678.14	32.137°N	103.378°W
4,150.00	0.37	37.95	4,148.77	48.35	-15.78	414,882.14	795,678.22	32.137°N	103.378°W
4,175.00	0.51	31.39	4,173.77	48.50	-15.67	414,882.30	795,678.32	32.137°N	103.378°W
4,200.00	0.51	45.20	4,198.77	48.68	-15.54	414,882.48	795,678.46	32.137°N	103.378°W
4,225.00	0.54	47.83	4,223.77	48.83	-15.37	414,882.63	795,678.63	32.137°N	103.378°W
4,250.00	0.64	52.69	4,248.76	49.00	-15.17	414,882.80	795,678.83	32.137°N	103.378°W
4,275.00	0.71	62.22	4,273.76	49.16	-14.92	414,882.95	795,679.07	32.137°N	103.378°W
4,300.00	0.79	59.49	4,298.76	49.32	-14.64	414,883.11	795,679.36	32.137°N	103.378°W
4,325.00	0.78	63.97	4,323.76	49.48	-14.34	414,883.28	795,679.66	32.137°N	103.378°W
4,350.00	0.82	63.15	4,348.76	49.63	-14.02	414,883.43	795,679.97	32.137°N	103.378°W
4,375.00	0.70	66.03	4,373.75	49.78	-13.73	414,883.57	795,680.27	32.137°N	103.378°W
4,400.00	0.73	66.60	4,398.75	49.90	-13.44	414,883.70	795,680.56	32.137°N	103.378°W
4,425.00	0.76	58.71	4,423.75	50.05	-13.15	414,883.85	795,680.85	32.137°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad: 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,450.00	0.58	48.69	4,448.75	50.22	-12.92	414,884.02	795,681.08	32.137°N	103.378°W
4,475.00	0.61	356.86	4,473.75	50.44	-12.83	414,884.24	795,681.17	32.137°N	103.378°W
4,500.00	0.72	348.47	4,498.74	50.72	-12.87	414,884.52	795,681.13	32.137°N	103.378°W
4,525.00	0.78	343.12	4,523.74	51.04	-12.95	414,884.84	795,681.05	32.137°N	103.378°W
4,550.00	0.70	342.49	4,548.74	51.35	-13.04	414,885.15	795,680.96	32.137°N	103.378°W
4,575.00	0.75	341.63	4,573.74	51.65	-13.14	414,885.45	795,680.86	32.137°N	103.378°W
4,600.00	0.77	349.60	4,598.74	51.97	-13.22	414,885.77	795,680.78	32.137°N	103.378°W
4,625.00	0.78	7.67	4,623.73	52.30	-13.23	414,886.10	795,680.77	32.137°N	103.378°W
4,650.00	0.79	36.23	4,648.73	52.61	-13.10	414,886.41	795,680.89	32.137°N	103.378°W
4,675.00	0.97	47.16	4,673.73	52.89	-12.85	414,886.69	795,681.15	32.137°N	103.378°W
4,700.00	1.13	52.79	4,698.72	53.19	-12.50	414,886.99	795,681.50	32.137°N	103.378°W
4,725.00	1.13	52.24	4,723.72	53.49	-12.11	414,887.29	795,681.89	32.137°N	103.378°W
4,750.00	1.16	52.45	4,748.72	53.79	-11.71	414,887.59	795,682.29	32.137°N	103.378°W
4,775.00	1.21	50.22	4,773.71	54.12	-11.31	414,887.91	795,682.69	32.137°N	103.378°W
4,800.00	1.13	51.51	4,798.70	54.44	-10.91	414,888.24	795,683.09	32.137°N	103.378°W
4,825.00	1.12	50.96	4,823.70	54.74	-10.53	414,888.54	795,683.47	32.137°N	103.378°W
4,850.00	1.07	45.64	4,848.70	55.06	-10.17	414,888.86	795,683.83	32.137°N	103.378°W
4,875.00	1.09	44.95	4,873.69	55.39	-9.84	414,889.19	795,684.16	32.137°N	103.378°W
4,900.00	1.18	45.25	4,898.69	55.74	-9.49	414,889.54	795,684.51	32.137°N	103.378°W
4,925.00	1.02	42.99	4,923.68	56.09	-9.15	414,889.89	795,684.85	32.137°N	103.378°W
4,950.00	0.97	41.70	4,948.68	56.41	-8.86	414,890.21	795,685.14	32.137°N	103.378°W
4,975.00	1.02	40.57	4,973.67	56.73	-8.57	414,890.53	795,685.43	32.137°N	103.378°W
5,000.00	0.82	32.95	4,998.67	57.05	-8.33	414,890.85	795,685.67	32.137°N	103.378°W
5,025.00	0.72	9.80	5,023.67	57.36	-8.21	414,891.16	795,685.79	32.137°N	103.378°W
5,050.00	1.24	314.62	5,048.66	57.70	-8.37	414,891.50	795,685.63	32.137°N	103.378°W
5,075.00	1.61	308.61	5,073.66	58.11	-8.84	414,891.91	795,685.16	32.137°N	103.378°W
5,100.00	1.63	303.71	5,098.65	58.53	-9.41	414,892.33	795,684.59	32.137°N	103.378°W
5,125.00	1.67	306.80	5,123.64	58.94	-10.00	414,892.74	795,684.00	32.137°N	103.378°W
5,150.00	1.61	306.39	5,148.63	59.37	-10.57	414,893.17	795,683.43	32.137°N	103.378°W
5,175.00	1.59	309.66	5,173.62	59.80	-11.12	414,893.60	795,682.88	32.137°N	103.378°W
5,200.00	1.51	308.79	5,198.61	60.23	-11.64	414,894.03	795,682.35	32.137°N	103.378°W
5,225.00	1.16	311.60	5,223.60	60.60	-12.09	414,894.40	795,681.91	32.137°N	103.378°W
5,250.00	0.55	324.04	5,248.60	60.87	-12.35	414,894.67	795,681.65	32.137°N	103.378°W
5,275.00	0.23	299.49	5,273.60	60.99	-12.46	414,894.79	795,681.53	32.137°N	103.378°W
5,300.00	0.10	271.95	5,298.60	61.02	-12.53	414,894.81	795,681.47	32.137°N	103.378°W
5,325.00	0.13	274.04	5,323.60	61.02	-12.58	414,894.82	795,681.42	32.137°N	103.378°W
5,350.00	0.28	264.43	5,348.60	61.01	-12.67	414,894.81	795,681.33	32.137°N	103.378°W
5,375.00	0.28	269.86	5,373.60	61.01	-12.79	414,894.81	795,681.21	32.137°N	103.378°W
5,400.00	0.38	263.55	5,398.60	61.00	-12.93	414,894.80	795,681.06	32.137°N	103.378°W
5,425.00	0.47	260.43	5,423.60	60.97	-13.12	414,894.77	795,680.88	32.137°N	103.378°W
5,450.00	0.29	266.70	5,448.60	60.95	-13.28	414,894.75	795,680.72	32.137°N	103.378°W
5,475.00	0.21	285.69	5,473.59	60.96	-13.39	414,894.76	795,680.61	32.137°N	103.378°W
5,500.00	0.25	278.18	5,498.59	60.98	-13.49	414,894.78	795,680.51	32.137°N	103.378°W
5,525.00	0.32	262.72	5,523.59	60.98	-13.61	414,894.78	795,680.39	32.137°N	103.378°W
5,550.00	0.21	269.28	5,548.59	60.97	-13.73	414,894.77	795,680.27	32.137°N	103.378°W
5,575.00	0.30	268.17	5,573.59	60.97	-13.84	414,894.77	795,680.16	32.137°N	103.378°W
5,600.00	0.44	254.27	5,598.59	60.94	-14.00	414,894.74	795,680.00	32.137°N	103.378°W
5,625.00	0.28	270.07	5,623.59	60.91	-14.15	414,894.71	795,679.85	32.137°N	103.378°W
5,650.00	0.36	245.07	5,648.59	60.88	-14.28	414,894.68	795,679.72	32.137°N	103.378°W
5,675.00	0.39	251.02	5,673.59	60.82	-14.43	414,894.62	795,679.57	32.137°N	103.378°W
5,700.00	0.24	250.19	5,698.59	60.77	-14.56	414,894.57	795,679.44	32.137°N	103.378°W
5,725.00	0.32	242.16	5,723.59	60.72	-14.67	414,894.52	795,679.32	32.137°N	103.378°W
5,750.00	0.18	245.50	5,748.59	60.68	-14.77	414,894.47	795,679.23	32.137°N	103.378°W
5,775.00	0.23	237.15	5,773.59	60.63	-14.85	414,894.43	795,679.15	32.137°N	103.378°W
5,800.00	0.30	253.02	5,798.59	60.59	-14.95	414,894.38	795,679.04	32.137°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,825.00	0.19	286.56	5,823.59	60.58	-15.06	414,894.38	795,678.94	32.137°N	103.378°W
5,850.00	0.31	279.90	5,848.59	60.60	-15.16	414,894.40	795,678.84	32.137°N	103.378°W
5,875.00	0.35	281.30	5,873.59	60.63	-15.30	414,894.43	795,678.69	32.137°N	103.378°W
5,900.00	0.33	291.39	5,898.59	60.67	-15.45	414,894.47	795,678.55	32.137°N	103.378°W
5,925.00	0.38	289.29	5,923.59	60.72	-15.59	414,894.52	795,678.41	32.137°N	103.378°W
5,950.00	0.45	286.80	5,948.59	60.78	-15.76	414,894.58	795,678.23	32.137°N	103.378°W
5,975.00	0.34	291.62	5,973.59	60.83	-15.93	414,894.63	795,678.07	32.137°N	103.378°W
6,000.00	0.48	280.85	5,998.59	60.88	-16.10	414,894.68	795,677.90	32.137°N	103.378°W
6,025.00	0.43	278.18	6,023.59	60.91	-16.29	414,894.71	795,677.70	32.137°N	103.378°W
6,050.00	0.43	264.92	6,048.59	60.92	-16.48	414,894.72	795,677.52	32.137°N	103.378°W
6,075.00	0.42	259.07	6,073.58	60.89	-16.66	414,894.69	795,677.33	32.137°N	103.378°W
6,100.00	0.31	271.19	6,098.58	60.88	-16.82	414,894.68	795,677.18	32.137°N	103.378°W
6,125.00	0.37	283.10	6,123.58	60.90	-16.97	414,894.70	795,677.03	32.137°N	103.378°W
6,150.00	0.28	273.84	6,148.58	60.92	-17.11	414,894.72	795,676.89	32.137°N	103.378°W
6,175.00	0.34	288.43	6,173.58	60.95	-17.24	414,894.75	795,676.76	32.137°N	103.378°W
6,200.00	0.34	270.51	6,198.58	60.97	-17.38	414,894.77	795,676.62	32.137°N	103.378°W
6,225.00	0.35	269.94	6,223.58	60.97	-17.53	414,894.77	795,676.46	32.137°N	103.378°W
6,250.00	0.31	283.72	6,248.58	60.99	-17.68	414,894.79	795,676.32	32.137°N	103.378°W
6,275.00	0.37	299.16	6,273.58	61.04	-17.81	414,894.84	795,676.19	32.137°N	103.378°W
6,300.00	0.42	289.68	6,298.58	61.11	-17.97	414,894.91	795,676.03	32.137°N	103.378°W
6,325.00	0.51	275.32	6,323.58	61.15	-18.17	414,894.95	795,675.83	32.137°N	103.378°W
6,350.00	0.46	267.91	6,348.58	61.16	-18.38	414,894.96	795,675.62	32.137°N	103.378°W
6,375.00	0.43	264.13	6,373.58	61.15	-18.57	414,894.95	795,675.43	32.137°N	103.378°W
6,400.00	0.36	262.27	6,398.58	61.13	-18.74	414,894.93	795,675.26	32.137°N	103.378°W
6,425.00	0.22	263.07	6,423.58	61.11	-18.87	414,894.91	795,675.13	32.137°N	103.378°W
6,450.00	0.25	263.83	6,448.58	61.10	-18.97	414,894.90	795,675.03	32.137°N	103.378°W
6,475.00	0.18	284.64	6,473.58	61.10	-19.06	414,894.90	795,674.94	32.137°N	103.378°W
6,500.00	0.23	312.16	6,498.58	61.15	-19.14	414,894.95	795,674.86	32.137°N	103.378°W
6,525.00	0.29	310.02	6,523.58	61.22	-19.22	414,895.02	795,674.78	32.137°N	103.378°W
6,550.00	0.38	285.90	6,548.58	61.29	-19.35	414,895.08	795,674.65	32.137°N	103.378°W
6,575.00	0.33	272.83	6,573.58	61.31	-19.50	414,895.11	795,674.50	32.137°N	103.378°W
6,600.00	0.27	263.72	6,598.58	61.31	-19.63	414,895.11	795,674.37	32.137°N	103.378°W
6,625.00	0.31	252.44	6,623.57	61.28	-19.75	414,895.08	795,674.24	32.137°N	103.378°W
6,650.00	0.18	256.42	6,648.57	61.25	-19.86	414,895.05	795,674.14	32.137°N	103.378°W
6,675.00	0.17	270.39	6,673.57	61.24	-19.93	414,895.04	795,674.07	32.137°N	103.378°W
6,700.00	0.17	268.09	6,698.57	61.24	-20.01	414,895.04	795,673.99	32.137°N	103.378°W
6,725.00	0.13	295.90	6,723.57	61.25	-20.07	414,895.05	795,673.93	32.137°N	103.378°W
6,750.00	0.25	297.52	6,748.57	61.29	-20.14	414,895.09	795,673.85	32.137°N	103.378°W
6,775.00	0.27	299.32	6,773.57	61.35	-20.24	414,895.14	795,673.75	32.137°N	103.378°W
6,800.00	0.34	278.92	6,798.57	61.39	-20.37	414,895.18	795,673.63	32.137°N	103.378°W
6,825.00	0.31	274.18	6,823.57	61.40	-20.51	414,895.20	795,673.49	32.137°N	103.378°W
6,850.00	0.27	253.02	6,848.57	61.39	-20.63	414,895.19	795,673.37	32.137°N	103.378°W
6,875.00	0.16	287.61	6,873.57	61.38	-20.72	414,895.18	795,673.28	32.137°N	103.378°W
6,900.00	0.21	332.25	6,898.57	61.43	-20.78	414,895.23	795,673.22	32.137°N	103.378°W
6,925.00	0.33	280.16	6,923.57	61.49	-20.87	414,895.29	795,673.13	32.137°N	103.378°W
6,950.00	0.28	282.06	6,948.57	61.51	-21.00	414,895.31	795,673.00	32.137°N	103.378°W
6,975.00	0.20	266.68	6,973.57	61.52	-21.10	414,895.32	795,672.90	32.137°N	103.378°W
7,000.00	0.12	295.12	6,998.57	61.53	-21.17	414,895.33	795,672.83	32.137°N	103.378°W
7,025.00	0.14	238.06	7,023.57	61.53	-21.22	414,895.33	795,672.78	32.137°N	103.378°W
7,050.00	0.07	334.44	7,048.57	61.52	-21.25	414,895.32	795,672.75	32.137°N	103.378°W
7,075.00	0.18	307.71	7,073.57	61.56	-21.29	414,895.36	795,672.71	32.137°N	103.378°W
7,100.00	0.17	338.38	7,098.57	61.62	-21.33	414,895.42	795,672.66	32.137°N	103.378°W
7,125.00	0.18	337.31	7,123.57	61.69	-21.36	414,895.49	795,672.63	32.137°N	103.378°W
7,150.00	0.22	327.73	7,148.57	61.77	-21.40	414,895.57	795,672.59	32.137°N	103.378°W
7,175.00	0.21	310.96	7,173.57	61.84	-21.46	414,895.64	795,672.53	32.137°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,200.00	0.17	324.77	7,198.57	61.90	-21.52	414,895.70	795,672.48	32.137°N	103.378°W
7,225.00	0.22	341.88	7,223.57	61.97	-21.56	414,895.77	795,672.44	32.137°N	103.378°W
7,250.00	0.14	293.16	7,248.57	62.03	-21.60	414,895.83	795,672.40	32.137°N	103.378°W
7,275.00	0.25	274.72	7,273.57	62.05	-21.68	414,895.85	795,672.32	32.137°N	103.378°W
7,300.00	0.12	249.51	7,298.57	62.04	-21.76	414,895.84	795,672.24	32.137°N	103.378°W
7,325.00	0.07	255.48	7,323.57	62.03	-21.80	414,895.83	795,672.20	32.137°N	103.378°W
7,350.00	0.10	234.17	7,348.57	62.01	-21.83	414,895.81	795,672.17	32.137°N	103.378°W
7,375.00	0.09	39.43	7,373.57	62.02	-21.84	414,895.82	795,672.16	32.137°N	103.378°W
7,400.00	0.21	45.47	7,398.57	62.06	-21.79	414,895.86	795,672.21	32.137°N	103.378°W
7,425.00	0.04	39.89	7,423.57	62.10	-21.75	414,895.90	795,672.24	32.137°N	103.378°W
7,450.00	0.29	52.29	7,448.57	62.15	-21.70	414,895.95	795,672.30	32.137°N	103.378°W
7,475.00	0.10	342.96	7,473.57	62.21	-21.65	414,896.01	795,672.34	32.137°N	103.378°W
7,500.00	0.15	311.91	7,498.57	62.25	-21.69	414,896.05	795,672.31	32.137°N	103.378°W
7,525.00	0.05	240.29	7,523.57	62.27	-21.72	414,896.07	795,672.28	32.137°N	103.378°W
7,550.00	0.09	5.84	7,548.57	62.28	-21.73	414,896.08	795,672.27	32.137°N	103.378°W
7,575.00	0.16	342.85	7,573.57	62.33	-21.74	414,896.13	795,672.26	32.137°N	103.378°W
7,600.00	0.16	306.19	7,598.57	62.39	-21.77	414,896.19	795,672.22	32.137°N	103.378°W
7,625.00	0.08	231.89	7,623.57	62.40	-21.82	414,896.20	795,672.18	32.137°N	103.378°W
7,650.00	0.03	159.15	7,648.57	62.38	-21.83	414,896.18	795,672.17	32.137°N	103.378°W
7,675.00	0.13	23.30	7,673.57	62.40	-21.81	414,896.20	795,672.18	32.137°N	103.378°W
7,700.00	0.12	356.97	7,698.57	62.45	-21.80	414,896.25	795,672.19	32.137°N	103.378°W
7,725.00	0.20	306.52	7,723.57	62.51	-21.84	414,896.30	795,672.16	32.137°N	103.378°W
7,750.00	0.08	292.54	7,748.57	62.54	-21.89	414,896.34	795,672.11	32.137°N	103.378°W
7,775.00	0.07	113.88	7,773.57	62.54	-21.89	414,896.34	795,672.10	32.137°N	103.378°W
7,800.00	0.07	40.47	7,798.57	62.54	-21.87	414,896.34	795,672.13	32.137°N	103.378°W
7,825.00	0.04	16.98	7,823.57	62.56	-21.86	414,896.36	795,672.14	32.137°N	103.378°W
7,850.00	0.20	30.10	7,848.57	62.61	-21.83	414,896.41	795,672.17	32.137°N	103.378°W
7,875.00	0.20	38.97	7,873.57	62.68	-21.78	414,896.48	795,672.21	32.137°N	103.378°W
7,900.00	0.16	24.31	7,898.57	62.75	-21.74	414,896.55	795,672.26	32.137°N	103.378°W
7,925.00	0.21	16.24	7,923.57	62.82	-21.71	414,896.62	795,672.28	32.137°N	103.378°W
7,950.00	0.18	353.28	7,948.57	62.91	-21.71	414,896.71	795,672.29	32.137°N	103.378°W
7,975.00	0.22	332.22	7,973.57	62.99	-21.73	414,896.79	795,672.26	32.137°N	103.378°W
8,000.00	0.20	309.43	7,998.57	63.06	-21.79	414,896.86	795,672.21	32.137°N	103.378°W
8,025.00	0.26	302.94	8,023.57	63.12	-21.87	414,896.92	795,672.13	32.137°N	103.378°W
8,050.00	0.23	335.45	8,048.57	63.19	-21.94	414,896.99	795,672.06	32.137°N	103.378°W
8,075.00	0.23	320.51	8,073.57	63.28	-21.99	414,897.08	795,672.01	32.137°N	103.378°W
8,100.00	0.69	306.74	8,098.57	63.41	-22.14	414,897.21	795,671.85	32.137°N	103.378°W
8,125.00	0.95	304.00	8,123.56	63.61	-22.44	414,897.41	795,671.56	32.137°N	103.378°W
8,150.00	1.12	303.95	8,148.56	63.86	-22.81	414,897.66	795,671.19	32.137°N	103.378°W
8,175.00	1.22	302.89	8,173.56	64.15	-23.24	414,897.94	795,670.76	32.137°N	103.378°W
8,200.00	1.25	298.68	8,198.55	64.42	-23.70	414,898.22	795,670.30	32.137°N	103.378°W
8,225.00	1.20	299.01	8,223.54	64.68	-24.17	414,898.48	795,669.83	32.137°N	103.378°W
8,250.00	1.10	305.90	8,248.54	64.95	-24.59	414,898.75	795,669.41	32.137°N	103.378°W
8,275.00	1.09	299.67	8,273.53	65.20	-24.99	414,899.00	795,669.01	32.137°N	103.378°W
8,300.00	1.18	307.22	8,298.53	65.48	-25.40	414,899.28	795,668.59	32.137°N	103.378°W
8,325.00	1.21	308.31	8,323.52	65.80	-25.82	414,899.60	795,668.18	32.137°N	103.378°W
8,350.00	1.27	307.58	8,348.52	66.13	-26.24	414,899.93	795,667.75	32.137°N	103.378°W
8,375.00	1.23	305.11	8,373.51	66.45	-26.68	414,900.25	795,667.32	32.137°N	103.378°W
8,400.00	1.21	300.63	8,398.51	66.74	-27.13	414,900.54	795,666.87	32.137°N	103.378°W
8,425.00	1.17	303.80	8,423.50	67.02	-27.57	414,900.82	795,666.43	32.137°N	103.378°W
8,450.00	1.08	298.39	8,448.50	67.27	-27.99	414,901.07	795,666.01	32.137°N	103.378°W
8,475.00	0.87	308.83	8,473.49	67.50	-28.34	414,901.30	795,665.66	32.137°N	103.378°W
8,500.00	0.98	307.87	8,498.49	67.75	-28.66	414,901.55	795,665.34	32.137°N	103.378°W
8,525.00	1.00	314.11	8,523.49	68.04	-28.98	414,901.84	795,665.01	32.137°N	103.378°W
8,550.00	0.96	318.50	8,548.48	68.35	-29.28	414,902.15	795,664.72	32.137°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
8,575.00	0.97	313.97	8,573.48	68.65	-29.57	414,902.45	795,664.43	32.137°N	103.378°W	
8,600.00	0.88	305.31	8,598.47	68.91	-29.88	414,902.71	795,664.12	32.137°N	103.378°W	
8,625.00	0.68	314.96	8,623.47	69.12	-30.14	414,902.92	795,663.86	32.137°N	103.378°W	
8,650.00	0.74	321.18	8,648.47	69.35	-30.35	414,903.15	795,663.65	32.137°N	103.378°W	
8,675.00	0.76	318.13	8,673.47	69.60	-30.56	414,903.40	795,663.44	32.137°N	103.378°W	
8,700.00	0.61	320.16	8,698.47	69.83	-30.76	414,903.63	795,663.24	32.137°N	103.378°W	
8,725.00	0.63	333.10	8,723.47	70.05	-30.90	414,903.85	795,663.09	32.137°N	103.378°W	
8,750.00	0.76	321.59	8,748.46	70.31	-31.07	414,904.11	795,662.93	32.137°N	103.378°W	
8,775.00	0.71	315.15	8,773.46	70.55	-31.28	414,904.34	795,662.72	32.137°N	103.378°W	
8,800.00	0.57	328.03	8,798.46	70.76	-31.46	414,904.56	795,662.54	32.137°N	103.378°W	
8,825.00	0.68	328.33	8,823.46	70.99	-31.60	414,904.79	795,662.40	32.137°N	103.378°W	
8,850.00	0.77	324.82	8,848.46	71.26	-31.77	414,905.06	795,662.22	32.137°N	103.378°W	
8,875.00	0.67	313.66	8,873.45	71.49	-31.98	414,905.29	795,662.02	32.137°N	103.378°W	
8,900.00	0.57	316.67	8,898.45	71.69	-32.17	414,905.49	795,661.83	32.137°N	103.378°W	
8,925.00	0.48	330.95	8,923.45	71.87	-32.30	414,905.67	795,661.69	32.137°N	103.378°W	
8,950.00	0.51	330.02	8,948.45	72.06	-32.41	414,905.86	795,661.59	32.137°N	103.378°W	
8,975.00	0.66	331.66	8,973.45	72.28	-32.53	414,906.08	795,661.46	32.137°N	103.378°W	
9,000.00	0.60	314.34	8,998.45	72.50	-32.70	414,906.30	795,661.30	32.137°N	103.378°W	
9,025.00	0.50	313.14	9,023.45	72.66	-32.87	414,906.46	795,661.13	32.137°N	103.378°W	
9,050.00	0.44	302.26	9,048.45	72.79	-33.03	414,906.59	795,660.97	32.137°N	103.378°W	
9,075.00	0.42	308.30	9,073.45	72.90	-33.18	414,906.70	795,660.81	32.137°N	103.378°W	
9,100.00	0.52	305.05	9,098.44	73.02	-33.35	414,906.82	795,660.65	32.137°N	103.378°W	
9,125.00	0.66	286.44	9,123.44	73.12	-33.58	414,906.92	795,660.42	32.137°N	103.378°W	
9,150.00	0.62	286.74	9,148.44	73.20	-33.85	414,907.00	795,660.15	32.137°N	103.378°W	
9,175.00	0.67	269.68	9,173.44	73.24	-34.12	414,907.04	795,659.88	32.137°N	103.378°W	
9,200.00	0.79	262.16	9,198.44	73.22	-34.44	414,907.02	795,659.56	32.137°N	103.378°W	
9,225.00	0.81	251.40	9,223.44	73.14	-34.78	414,906.94	795,659.22	32.137°N	103.378°W	
9,250.00	0.86	242.04	9,248.43	72.99	-35.11	414,906.79	795,658.89	32.137°N	103.378°W	
9,275.00	0.87	242.53	9,273.43	72.82	-35.44	414,906.62	795,658.55	32.137°N	103.378°W	
9,300.00	0.86	239.79	9,298.43	72.64	-35.78	414,906.44	795,658.22	32.137°N	103.378°W	
9,325.00	1.00	245.71	9,323.42	72.45	-36.14	414,906.25	795,657.86	32.137°N	103.378°W	
9,350.00	1.12	237.18	9,348.42	72.23	-36.54	414,906.03	795,657.46	32.137°N	103.378°W	
9,375.00	1.26	241.08	9,373.41	71.97	-36.99	414,905.76	795,657.01	32.137°N	103.378°W	
9,400.00	1.29	239.68	9,398.41	71.69	-37.47	414,905.49	795,656.53	32.137°N	103.378°W	
9,425.00	1.31	238.88	9,423.40	71.40	-37.96	414,905.20	795,656.04	32.137°N	103.378°W	
9,450.00	1.44	240.15	9,448.39	71.10	-38.47	414,904.90	795,655.52	32.137°N	103.378°W	
9,475.00	1.56	238.31	9,473.39	70.76	-39.04	414,904.56	795,654.96	32.137°N	103.378°W	
9,500.00	1.87	241.56	9,498.37	70.39	-39.68	414,904.19	795,654.31	32.137°N	103.378°W	
9,525.00	1.92	242.12	9,523.36	70.00	-40.41	414,903.80	795,653.58	32.137°N	103.378°W	
9,550.00	1.90	246.52	9,548.35	69.64	-41.16	414,903.44	795,652.83	32.137°N	103.378°W	
9,575.00	1.93	247.71	9,573.33	69.31	-41.93	414,903.11	795,652.06	32.137°N	103.378°W	
9,600.00	1.99	249.74	9,598.32	69.00	-42.73	414,902.80	795,651.27	32.137°N	103.378°W	
9,625.00	2.07	247.96	9,623.30	68.68	-43.56	414,902.48	795,650.44	32.137°N	103.378°W	
9,650.00	2.17	248.07	9,648.29	68.34	-44.41	414,902.14	795,649.58	32.137°N	103.378°W	
9,675.00	2.10	244.77	9,673.27	67.96	-45.27	414,901.76	795,648.73	32.137°N	103.378°W	
9,700.00	2.05	243.74	9,698.25	67.57	-46.08	414,901.37	795,647.92	32.137°N	103.378°W	
9,725.00	1.98	245.86	9,723.24	67.20	-46.88	414,901.00	795,647.12	32.137°N	103.378°W	
9,750.00	2.03	246.50	9,748.22	66.84	-47.68	414,900.64	795,646.32	32.137°N	103.378°W	
9,775.00	2.10	249.71	9,773.21	66.51	-48.51	414,900.31	795,645.48	32.137°N	103.378°W	
9,800.00	2.20	247.73	9,798.19	66.17	-49.39	414,899.97	795,644.61	32.137°N	103.378°W	
9,825.00	2.25	247.85	9,823.17	65.80	-50.29	414,899.60	795,643.71	32.137°N	103.378°W	
9,850.00	2.25	243.67	9,848.15	65.40	-51.18	414,899.20	795,642.82	32.137°N	103.378°W	
9,875.00	1.98	246.03	9,873.13	65.00	-52.01	414,898.80	795,641.98	32.137°N	103.378°W	
9,900.00	2.07	247.49	9,898.12	64.66	-52.83	414,898.46	795,641.17	32.137°N	103.378°W	
9,925.00	2.15	244.12	9,923.10	64.28	-53.66	414,898.08	795,640.33	32.137°N	103.378°W	



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,950.00	2.00	245.78	9,948.08	63.90	-54.48	414,897.69	795,639.51	32.137°N	103.378°W
9,975.00	2.08	247.47	9,973.07	63.54	-55.30	414,897.34	795,638.70	32.137°N	103.378°W
10,000.00	2.17	246.68	9,998.05	63.18	-56.16	414,896.98	795,637.84	32.137°N	103.378°W
10,025.00	2.21	246.24	10,023.03	62.80	-57.03	414,896.60	795,636.97	32.137°N	103.378°W
10,050.00	2.10	242.75	10,048.01	62.40	-57.88	414,896.20	795,636.12	32.137°N	103.378°W
10,075.00	2.16	244.63	10,073.00	61.98	-58.71	414,895.78	795,635.29	32.137°N	103.378°W
10,100.00	2.21	242.77	10,097.98	61.56	-59.57	414,895.36	795,634.43	32.137°N	103.378°W
10,125.00	2.01	241.95	10,122.96	61.14	-60.38	414,894.93	795,633.62	32.137°N	103.378°W
10,150.00	2.22	241.18	10,147.95	60.70	-61.19	414,894.49	795,632.80	32.137°N	103.378°W
10,175.00	2.30	237.73	10,172.93	60.19	-62.04	414,893.99	795,631.96	32.137°N	103.378°W
10,200.00	2.28	237.36	10,197.91	59.66	-62.88	414,893.46	795,631.11	32.137°N	103.378°W
10,225.00	2.27	240.48	10,222.89	59.15	-63.73	414,892.95	795,630.26	32.137°N	103.378°W
10,250.00	2.53	239.66	10,247.86	58.62	-64.64	414,892.42	795,629.36	32.137°N	103.378°W
10,275.00	2.59	238.40	10,272.84	58.05	-65.60	414,891.85	795,628.40	32.137°N	103.378°W
10,300.00	2.61	236.71	10,297.81	57.44	-66.56	414,891.24	795,627.44	32.137°N	103.378°W
10,325.00	2.64	237.76	10,322.79	56.82	-67.52	414,890.62	795,626.48	32.137°N	103.378°W
10,350.00	2.70	238.62	10,347.76	56.21	-68.51	414,890.01	795,625.49	32.137°N	103.378°W
10,375.00	2.69	241.67	10,372.73	55.62	-69.53	414,889.42	795,624.47	32.137°N	103.378°W
10,400.00	2.90	236.79	10,397.70	55.00	-70.57	414,888.80	795,623.43	32.137°N	103.378°W
10,425.00	2.94	239.46	10,422.67	54.33	-71.65	414,888.12	795,622.34	32.137°N	103.378°W
10,450.00	3.08	237.58	10,447.64	53.64	-72.77	414,887.44	795,621.22	32.137°N	103.378°W
10,475.00	3.17	235.17	10,472.60	52.88	-73.91	414,886.68	795,620.09	32.137°N	103.378°W
10,500.00	3.29	236.22	10,497.56	52.09	-75.07	414,885.89	795,618.93	32.137°N	103.378°W
10,525.00	3.20	235.32	10,522.52	51.29	-76.24	414,885.09	795,617.76	32.137°N	103.378°W
10,550.00	3.36	233.79	10,547.48	50.46	-77.41	414,884.26	795,616.59	32.137°N	103.378°W
10,575.00	3.36	235.27	10,572.43	49.61	-78.60	414,883.41	795,615.40	32.137°N	103.378°W
10,600.00	3.22	234.40	10,597.39	48.79	-79.77	414,882.59	795,614.23	32.137°N	103.378°W
10,625.00	3.38	232.70	10,622.35	47.93	-80.93	414,881.73	795,613.07	32.137°N	103.378°W
10,650.00	3.26	230.91	10,647.31	47.04	-82.07	414,880.84	795,611.93	32.137°N	103.378°W
10,675.00	3.11	229.64	10,672.27	46.15	-83.14	414,879.95	795,610.86	32.137°N	103.378°W
10,700.00	3.07	228.22	10,697.24	45.27	-84.15	414,879.07	795,609.85	32.137°N	103.378°W
10,725.00	3.08	228.07	10,722.20	44.37	-85.15	414,878.17	795,608.85	32.137°N	103.378°W
10,750.00	3.14	224.95	10,747.16	43.44	-86.13	414,877.24	795,607.86	32.137°N	103.378°W
10,775.00	3.14	225.80	10,772.12	42.48	-87.11	414,876.28	795,606.89	32.137°N	103.378°W
10,800.00	3.14	222.14	10,797.09	41.49	-88.06	414,875.29	795,605.94	32.137°N	103.378°W
10,825.00	3.22	220.00	10,822.05	40.45	-88.97	414,874.24	795,605.03	32.137°N	103.378°W
10,850.00	3.22	216.21	10,847.01	39.34	-89.84	414,873.14	795,604.16	32.137°N	103.378°W
10,875.00	3.28	213.74	10,871.97	38.18	-90.65	414,871.98	795,603.35	32.137°N	103.378°W
10,900.00	3.37	210.12	10,896.93	36.95	-91.41	414,870.75	795,602.58	32.137°N	103.378°W
10,925.00	3.45	205.50	10,921.88	35.63	-92.11	414,869.43	795,601.89	32.137°N	103.378°W
10,950.00	3.49	200.87	10,946.84	34.24	-92.70	414,868.04	795,601.30	32.137°N	103.378°W
10,975.00	3.60	198.03	10,971.79	32.79	-93.22	414,866.59	795,600.78	32.137°N	103.378°W
11,000.00	3.55	196.74	10,996.74	31.30	-93.68	414,865.10	795,600.32	32.137°N	103.378°W
11,025.00	3.30	193.27	11,021.70	29.86	-94.07	414,863.66	795,599.93	32.137°N	103.378°W
11,050.00	3.10	190.55	11,046.66	28.49	-94.36	414,862.29	795,599.64	32.137°N	103.378°W
11,075.00	2.84	187.90	11,071.62	27.22	-94.57	414,861.01	795,599.43	32.137°N	103.378°W
11,100.00	2.98	188.89	11,096.59	25.96	-94.75	414,859.76	795,599.25	32.137°N	103.378°W
11,125.00	2.82	188.33	11,121.56	24.71	-94.94	414,858.51	795,599.06	32.137°N	103.378°W
11,150.00	2.90	192.63	11,146.53	23.48	-95.17	414,857.28	795,598.83	32.137°N	103.378°W
11,175.00	3.06	189.91	11,171.49	22.21	-95.42	414,856.01	795,598.58	32.137°N	103.378°W
11,200.00	3.07	190.10	11,196.46	20.89	-95.65	414,854.69	795,598.34	32.137°N	103.378°W
11,225.00	3.07	189.29	11,221.42	19.57	-95.88	414,853.37	795,598.12	32.137°N	103.378°W
11,250.00	3.09	189.08	11,246.39	18.25	-96.09	414,852.05	795,597.90	32.137°N	103.378°W
11,275.00	3.13	188.82	11,271.35	16.91	-96.31	414,850.71	795,597.69	32.137°N	103.378°W
11,300.00	3.13	187.78	11,296.31	15.56	-96.50	414,849.36	795,597.50	32.137°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,325.00	3.19	187.70	11,321.27	14.19	-96.69	414,847.99	795,597.31	32.137°N	103.378°W
11,350.00	3.19	186.63	11,346.24	12.81	-96.86	414,846.61	795,597.14	32.137°N	103.378°W
11,375.00	3.17	186.47	11,371.20	11.43	-97.02	414,845.23	795,596.98	32.137°N	103.378°W
11,400.00	3.16	185.04	11,396.16	10.06	-97.16	414,843.86	795,596.84	32.137°N	103.378°W
11,425.00	3.08	187.68	11,421.12	8.71	-97.31	414,842.51	795,596.69	32.137°N	103.378°W
11,450.00	3.19	187.52	11,446.08	7.35	-97.49	414,841.15	795,596.51	32.137°N	103.378°W
11,475.00	3.18	187.20	11,471.05	5.98	-97.67	414,839.77	795,596.33	32.137°N	103.378°W
11,500.00	3.16	185.74	11,496.01	4.60	-97.82	414,838.40	795,596.17	32.137°N	103.378°W
11,525.00	3.25	185.41	11,520.97	3.21	-97.96	414,837.01	795,596.04	32.137°N	103.378°W
11,550.00	3.29	183.60	11,545.93	1.79	-98.07	414,835.59	795,595.93	32.137°N	103.378°W
11,575.00	3.65	179.01	11,570.88	0.28	-98.10	414,834.08	795,595.90	32.137°N	103.378°W
11,600.00	3.38	182.83	11,595.84	-1.25	-98.12	414,832.55	795,595.87	32.137°N	103.378°W
11600' MD: Final Gyro Survey - 11600' Keeper Gyro Tie in									
11,737.00	2.91	173.37	11,732.63	-8.74	-97.92	414,825.06	795,596.08	32.137°N	103.378°W
11737' MD: Begin DriTech MWD									
11,772.00	2.90	171.13	11,767.58	-10.50	-97.68	414,823.30	795,596.31	32.137°N	103.378°W
11,820.00	7.97	194.64	11,815.36	-14.92	-98.34	414,818.88	795,595.66	32.137°N	103.378°W
11,867.00	14.49	196.34	11,861.43	-23.73	-100.82	414,810.07	795,593.18	32.137°N	103.378°W
11,915.00	17.72	194.90	11,907.54	-36.55	-104.39	414,797.25	795,589.61	32.137°N	103.378°W
11,962.00	21.56	191.75	11,951.80	-51.93	-107.99	414,781.87	795,586.01	32.137°N	103.378°W
12,010.00	26.12	187.65	11,995.70	-71.04	-111.19	414,762.76	795,582.81	32.137°N	103.378°W
12,057.00	32.09	185.28	12,036.75	-93.75	-113.72	414,740.05	795,580.28	32.137°N	103.378°W
12,077.27	34.24	184.15	12,053.71	-104.80	-114.63	414,729.00	795,579.37	32.137°N	103.378°W
12077' MD: Hardline Crossing FNL									
12,105.00	37.19	182.79	12,076.23	-120.95	-115.60	414,712.84	795,578.40	32.137°N	103.378°W
12,152.00	42.06	180.59	12,112.42	-150.90	-116.45	414,682.90	795,577.54	32.136°N	103.378°W
12,200.00	46.77	179.41	12,146.70	-184.49	-116.44	414,649.31	795,577.56	32.136°N	103.378°W
12,247.00	52.41	179.24	12,177.15	-220.26	-116.02	414,613.54	795,577.98	32.136°N	103.378°W
12,295.00	57.76	178.81	12,204.61	-259.60	-115.34	414,574.20	795,578.66	32.136°N	103.378°W
12,342.00	62.66	178.67	12,227.96	-300.36	-114.44	414,533.44	795,579.55	32.136°N	103.378°W
12,390.00	67.57	179.48	12,248.15	-343.89	-113.75	414,489.91	795,580.25	32.136°N	103.378°W
12,437.00	72.16	180.18	12,264.33	-388.00	-113.62	414,445.80	795,580.38	32.136°N	103.378°W
12,485.00	76.30	180.07	12,277.37	-434.19	-113.72	414,399.61	795,580.28	32.136°N	103.378°W
12,532.00	80.04	180.09	12,287.00	-480.18	-113.78	414,353.62	795,580.21	32.136°N	103.378°W
12,580.00	83.70	180.14	12,293.79	-527.69	-113.88	414,306.11	795,580.12	32.135°N	103.378°W
12,614.00	86.06	179.98	12,296.82	-561.55	-113.92	414,272.25	795,580.08	32.135°N	103.378°W
12,693.00	87.30	179.37	12,301.40	-640.41	-113.47	414,193.39	795,580.53	32.135°N	103.378°W
12,788.00	87.24	179.62	12,305.92	-735.30	-112.63	414,098.50	795,581.37	32.135°N	103.378°W
12,883.00	86.48	179.43	12,311.13	-830.16	-111.85	414,003.64	795,582.15	32.135°N	103.378°W
12,977.00	85.80	180.28	12,317.45	-923.94	-111.61	413,909.86	795,582.39	32.134°N	103.378°W
13,071.00	86.78	179.23	12,323.54	-1,017.74	-111.21	413,816.06	795,582.79	32.134°N	103.378°W
13,157.00	88.07	179.39	12,327.40	-1,103.65	-110.17	413,730.16	795,583.83	32.134°N	103.378°W
13,252.00	88.71	179.14	12,330.07	-1,198.60	-108.95	413,635.20	795,585.04	32.134°N	103.378°W
13,347.00	90.57	179.15	12,330.67	-1,293.58	-107.54	413,540.22	795,586.46	32.133°N	103.378°W
13,441.00	90.43	179.45	12,329.85	-1,387.57	-106.39	413,446.23	795,587.61	32.133°N	103.378°W
13,535.00	90.74	180.88	12,328.89	-1,481.57	-106.66	413,352.24	795,587.34	32.133°N	103.378°W
13,630.00	90.27	181.42	12,328.05	-1,576.54	-108.56	413,257.26	795,585.43	32.133°N	103.378°W
13,724.00	90.93	180.32	12,327.06	-1,670.52	-109.99	413,163.28	795,584.01	32.132°N	103.378°W
13,819.00	90.13	180.14	12,326.19	-1,765.52	-110.37	413,068.28	795,583.62	32.132°N	103.378°W
13,914.00	90.01	180.37	12,326.07	-1,860.52	-110.80	412,973.29	795,583.20	32.132°N	103.378°W
14,008.00	90.54	179.97	12,325.62	-1,954.51	-111.08	412,879.29	795,582.92	32.132°N	103.378°W
14,103.00	90.39	179.99	12,324.85	-2,049.51	-111.04	412,784.29	795,582.96	32.131°N	103.378°W
14,197.00	91.44	179.60	12,323.35	-2,143.50	-110.71	412,690.31	795,583.29	32.131°N	103.378°W
14,292.00	91.69	179.93	12,320.75	-2,238.46	-110.32	412,595.34	795,583.68	32.131°N	103.378°W
14,387.00	90.43	178.24	12,318.99	-2,333.43	-108.80	412,500.38	795,585.20	32.130°N	103.378°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well White Falcon 16 State #13H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Site:	White Falcon 16 State	MD Reference:	GL 3257 + 29' RKB @ 3286.00ft (Noram #23)
Well:	White Falcon 16 State #13H	North Reference:	Grid
Wellbore:	#13H	Survey Calculation Method:	Minimum Curvature
Design:	#13H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,481.00	89.80	178.45	12,318.81	-2,427.39	-106.08	412,406.42	795,587.91	32.130°N	103.378°W
14,575.00	89.68	178.78	12,319.23	-2,521.36	-103.81	412,312.45	795,590.19	32.130°N	103.378°W
14,669.00	89.40	178.88	12,319.99	-2,615.34	-101.89	412,218.47	795,592.10	32.130°N	103.378°W
14,764.00	89.07	179.13	12,321.25	-2,710.31	-100.24	412,123.49	795,593.75	32.129°N	103.378°W
14,858.00	89.74	177.68	12,322.23	-2,804.27	-97.63	412,029.54	795,596.37	32.129°N	103.378°W
14,952.00	89.87	177.03	12,322.55	-2,898.17	-93.29	411,935.64	795,600.71	32.129°N	103.378°W
15,046.00	91.06	178.76	12,321.79	-2,992.10	-89.84	411,841.71	795,604.16	32.129°N	103.378°W
15,141.00	91.13	179.55	12,319.97	-3,087.07	-88.44	411,746.74	795,605.56	32.128°N	103.378°W
15,235.00	88.37	180.09	12,320.38	-3,181.06	-88.14	411,652.75	795,605.86	32.128°N	103.378°W
15,329.00	86.57	178.62	12,324.53	-3,274.95	-87.08	411,558.85	795,606.91	32.128°N	103.378°W
15,423.00	87.36	178.33	12,329.51	-3,368.79	-84.59	411,465.02	795,609.41	32.128°N	103.378°W
15,517.00	89.94	178.05	12,331.72	-3,462.71	-81.62	411,371.10	795,612.38	32.127°N	103.378°W
15,611.00	89.63	177.56	12,332.08	-3,556.64	-78.02	411,277.17	795,615.98	32.127°N	103.378°W
15,706.00	88.35	177.08	12,333.75	-3,651.51	-73.58	411,182.29	795,620.42	32.127°N	103.378°W
15,801.00	89.22	177.33	12,335.77	-3,746.38	-68.95	411,087.43	795,625.05	32.127°N	103.378°W
15,895.00	90.08	177.59	12,336.34	-3,840.28	-64.78	410,993.52	795,629.22	32.126°N	103.378°W
15,989.00	92.09	178.32	12,334.56	-3,934.20	-61.43	410,899.61	795,632.57	32.126°N	103.378°W
16,083.00	92.05	178.92	12,331.16	-4,028.11	-59.16	410,805.69	795,634.83	32.126°N	103.378°W
16,178.00	93.30	179.69	12,326.73	-4,123.00	-58.01	410,710.81	795,635.99	32.126°N	103.378°W
16,274.00	92.36	179.47	12,321.99	-4,218.88	-57.31	410,614.93	795,636.69	32.125°N	103.378°W
16,366.00	91.66	179.73	12,318.76	-4,310.82	-56.67	410,522.99	795,637.33	32.125°N	103.378°W
16,460.00	92.96	179.79	12,314.98	-4,404.74	-56.27	410,429.07	795,637.72	32.125°N	103.378°W
16,555.00	92.62	180.48	12,310.35	-4,499.63	-56.50	410,334.18	795,637.50	32.125°N	103.378°W
16,649.00	86.22	178.16	12,311.30	-4,593.56	-55.38	410,240.25	795,638.61	32.124°N	103.378°W
16,743.00	86.08	177.84	12,317.61	-4,687.29	-52.11	410,146.52	795,641.89	32.124°N	103.378°W
16,781.82	86.48	177.76	12,320.13	-4,726.00	-50.62	410,107.81	795,643.37	32.124°N	103.378°W
16782' MD: Hardline Crossing FSL									
16,838.00	87.05	177.65	12,323.31	-4,782.05	-48.38	410,051.76	795,645.62	32.124°N	103.378°W
16838' MD Final DrillTech MWD									
16,912.00	87.05	177.65	12,327.11	-4,855.89	-45.35	409,977.92	795,648.65	32.124°N	103.378°W
16912' 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	0.10	0.33	100' MD: Begin SDI Keeper Gyro Survey
11,600.00	11,595.84	-1.25	-98.12	11600' MD: Final Gyro Survey
11,600.00	11,595.84	-1.25	-98.12	11600' Keeper Gyro Tie in
11,737.00	11,732.63	-8.74	-97.92	11737' MD: Begin DrillTech MWD
12,077.27	12,053.71	-104.80	-114.63	12077' MD: Hardline Crossing FNL
16,781.82	12,320.13	-4,726.00	-50.62	16782' MD: Hardline Crossing FSL
16,838.00	12,323.31	-4,782.05	-48.38	16838' MD Final DrillTech MWD
16,912.00	12,327.11	-4,855.89	-45.35	16912' MD: Projection to Total Depth

Checked By: _____	Approved By: _____	Date: _____
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