



RECEIVED

DEC 24 2018

DISTRICT II-ARTESIA O.C.D.

Cimarex

Eddy County, NM (NAD 83)
(Foxx)SEC 31_T-26-S_R-27-E
Foxx 31 Fed Com #1H

30-015-45039

OWB

Design: AWB

Standard Survey Report

20 August, 2018





Microsoft
Survey Report



Company:	Cimarex	Local Co-ordinate Reference:	Well Foxx 31 Fed Com #1H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	KB @ 3235.0usft (H&P 393)
Site:	(Foxx)SEC 31_T-26-S_R-27-E	MD Reference:	KB @ 3235.0usft (H&P 393)
Well:	Foxx 31 Fed Com #1H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 10_13

Project	Eddy County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Foxx)SEC 31_T-26-S_R-27-E				
Site Position:		Northing:	365,346.27 usft	Latitude:	32° 0' 15.723 N
From:	Map	Easting:	576,085.62 usft	Longitude:	104° 13' 16.439 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.06 °

Well	Foxx 31 Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	365,346.27 usft	Latitude:	32° 0' 15.723 N
	+E/-W	0.0 usft	Easting:	576,085.62 usft	Longitude:	104° 13' 16.439 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,209.0 usft

Wellbore	OWB				
----------	-----	--	--	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/03/18	7.11	59.74	47,623.89574739

Design	AWB				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	271.40	

Survey Program	Date 08/20/18				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
207.0	6,692.0	Extreme MWD (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	
6,799.0	12,112.0	Intrepid MWD (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
207.0	0.23	151.46	207.0	-0.4	0.2	-0.2	0.11	0.11	0.00
397.0	0.11	121.45	397.0	-0.8	0.5	-0.6	0.08	-0.06	-15.79
577.0	0.31	47.02	577.0	-0.6	1.0	-1.1	0.17	0.11	-41.35
668.0	0.58	57.74	668.0	-0.1	1.6	-1.6	0.31	0.30	11.78
760.0	1.24	68.21	760.0	0.5	2.9	-2.9	0.74	0.72	11.38
851.0	1.39	62.63	851.0	1.4	4.8	-4.8	0.22	0.16	-6.13
945.0	1.49	56.90	944.9	2.5	6.9	-6.8	0.19	0.11	-6.10
1,039.0	1.68	58.17	1,038.9	3.9	9.1	-9.0	0.21	0.20	1.35
1,134.0	1.72	58.79	1,133.9	5.4	11.5	-11.3	0.05	0.04	0.65



Company: Cimarex
Project: Eddy County, NM (NAD 83)
Site: (Foxy)SEC 31_T-26-S_R-27-E
Well: Foxx 31 Fed Com #1H
Wellbore: OWB
Design: AWB

Local Co-ordinate Reference: Well Foxx 31 Fed Com #1H
TVD Reference: KB @ 3235.0usft (H&P 393)
MD Reference: KB @ 3235.0usft (H&P 393)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 10_13

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,228.0	1.75	62.86	1,227.8	6.8	13.9	-13.8	0.13	0.03	4.33
1,245.2	1.91	62.49	1,245.0	7.0	14.4	-14.3	0.94	0.94	-2.17
Salado (Top Salt)									
1,323.0	2.64	61.37	1,322.7	8.5	17.2	-16.9	0.94	0.94	-1.44
1,418.0	2.83	68.29	1,417.6	10.4	21.2	-21.0	0.40	0.20	7.28
1,512.0	2.12	74.49	1,511.5	11.7	25.1	-24.8	0.81	-0.76	6.60
1,606.0	2.02	81.17	1,605.5	12.5	28.4	-28.1	0.28	-0.11	7.11
1,704.6	2.73	83.96	1,704.0	13.0	32.4	-32.1	0.73	0.72	2.83
Castille (Base Salt)									
1,795.0	3.39	85.48	1,794.3	13.4	37.3	-36.9	0.73	0.73	1.68
1,925.9	3.09	80.92	1,925.0	14.3	44.6	-44.2	0.30	-0.23	-3.48
Bell Canyon (Delaware)									
1,971.0	2.99	79.14	1,970.0	14.7	47.0	-46.6	0.30	-0.22	-3.95
2,066.0	1.14	59.02	2,064.9	15.6	50.2	-49.8	2.06	-1.95	-21.18
2,160.0	1.21	51.45	2,158.9	16.7	51.8	-51.3	0.18	0.07	-8.05
2,255.0	0.92	46.95	2,253.9	17.9	53.1	-52.7	0.32	-0.31	-4.74
2,349.0	0.91	40.12	2,347.9	19.0	54.1	-53.7	0.12	-0.01	-7.27
2,444.0	0.99	38.30	2,442.9	20.2	55.1	-54.6	0.09	0.08	-1.92
2,538.0	0.76	37.88	2,536.9	21.3	56.0	-55.5	0.24	-0.24	-0.45
2,633.0	0.58	35.90	2,631.8	22.2	56.7	-56.1	0.19	-0.19	-2.08
2,728.0	0.55	32.42	2,726.8	23.0	57.2	-56.6	0.05	-0.03	-3.66
2,822.0	0.63	25.22	2,820.8	23.8	57.7	-57.1	0.12	0.09	-7.66
2,916.0	0.56	15.92	2,914.8	24.7	58.0	-57.4	0.13	-0.07	-9.89
2,923.2	0.55	14.24	2,922.0	24.8	58.0	-57.4	0.26	-0.13	-23.40
Cherry Canyon									
3,011.0	0.48	349.51	3,009.8	25.6	58.1	-57.4	0.26	-0.08	-28.16
3,105.0	0.78	36.24	3,103.8	26.5	58.4	-57.7	0.61	0.32	49.71
3,199.0	1.37	48.81	3,197.8	27.7	59.6	-58.9	0.67	0.63	13.37
3,294.0	1.35	46.23	3,292.8	29.3	61.3	-60.5	0.07	-0.02	-2.72
3,389.0	1.08	47.18	3,387.8	30.6	62.7	-62.0	0.28	-0.28	1.00
3,483.0	1.54	43.88	3,481.7	32.2	64.3	-63.5	0.50	0.49	-3.51
3,578.0	2.67	53.90	3,576.7	34.4	66.9	-66.1	1.25	1.19	10.55
3,672.0	2.61	58.07	3,670.6	36.8	70.5	-69.6	0.21	-0.06	4.44
3,766.0	3.67	48.38	3,764.4	39.9	74.6	-73.6	1.26	1.13	-10.31
3,861.0	3.49	54.85	3,859.2	43.6	79.2	-78.1	0.47	-0.19	6.81
3,955.0	3.30	50.38	3,953.1	47.0	83.7	-82.5	0.35	-0.20	-4.76
4,050.0	3.84	50.79	4,047.9	50.7	88.2	-87.0	0.57	0.57	0.43
4,053.1	3.84	50.79	4,051.0	50.9	88.4	-87.1	0.00	0.00	0.00
Brushy Canyon									
4,144.0	3.79	49.87	4,141.7	54.7	93.0	-91.7	0.09	-0.06	-1.01
4,239.0	3.57	47.84	4,236.5	58.7	97.6	-96.2	0.27	-0.23	-2.14
4,334.0	3.31	49.93	4,331.3	62.5	101.9	-100.4	0.30	-0.27	2.20
4,428.0	3.78	50.00	4,425.1	66.2	106.4	-104.7	0.50	0.50	0.07
4,522.0	4.03	47.53	4,518.9	70.5	111.2	-109.4	0.32	0.27	-2.63



Microsoft
Survey Report



Company:	Cimarex	Local Co-ordinate Reference:	Well Foxx 31 Fed Com #1H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	KB @ 3235.0usft (H&P 393)
Site:	(Foxx)SEC 31_T-26-S_R-27-E	MD Reference:	KB @ 3235.0usft (H&P 393)
Well:	Foxx 31 Fed Com #1H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 10_13

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,617.0	3.96	45.36	4,613.7	75.0	116.0	-114.1	0.18	-0.07	-2.28	
4,711.0	3.79	45.55	4,707.5	79.5	120.5	-118.5	0.18	-0.18	0.20	
4,805.0	3.70	45.83	4,801.3	83.8	124.9	-122.8	0.10	-0.10	0.30	
4,900.0	3.68	48.82	4,896.1	87.9	129.4	-127.2	0.20	-0.02	3.15	
4,994.0	3.48	43.84	4,989.9	92.0	133.6	-131.4	0.39	-0.21	-5.30	
5,088.0	3.16	43.53	5,083.7	95.9	137.4	-135.0	0.34	-0.34	-0.33	
5,183.0	3.19	42.52	5,178.6	99.7	141.0	-138.5	0.07	0.03	-1.06	
5,277.0	2.86	43.19	5,272.5	103.4	144.4	-141.8	0.35	-0.35	0.71	
5,279.5	2.83	43.30	5,275.0	103.5	144.5	-141.9	1.04	-1.01	4.47	
Brushy Canyon Lower										
5,371.0	1.92	49.41	5,366.4	106.1	147.2	-144.5	1.04	-1.00	6.68	
5,466.0	1.49	61.16	5,461.3	107.7	149.5	-146.8	0.58	-0.45	12.37	
5,499.7	1.42	58.83	5,495.0	108.2	150.2	-147.5	0.28	-0.22	-6.91	
Bone Spring										
5,560.0	1.29	54.01	5,555.3	108.9	151.4	-148.7	0.28	-0.21	-7.99	
5,621.7	1.10	54.50	5,617.0	109.7	152.4	-149.7	0.31	-0.31	0.79	
Bone Spring "A" Shale										
5,654.0	1.00	54.83	5,649.3	110.0	152.9	-150.2	0.31	-0.31	1.02	
5,749.0	1.00	38.17	5,744.3	111.2	154.1	-151.3	0.30	0.00	-17.54	
5,843.0	0.54	46.67	5,838.3	112.1	154.9	-152.1	0.50	-0.49	9.04	
5,937.0	0.26	13.17	5,932.3	112.6	155.3	-152.5	0.38	-0.30	-35.64	
6,032.0	0.36	19.74	6,027.3	113.1	155.4	-152.6	0.11	0.11	6.92	
6,126.0	0.58	43.08	6,121.3	113.7	155.9	-153.0	0.31	0.23	24.83	
6,130.7	0.58	47.18	6,126.0	113.8	155.9	-153.1	0.87	-0.05	86.37	
Bone Spring "C" Shale										
6,220.0	0.96	101.49	6,215.3	113.9	157.0	-154.1	0.87	0.43	60.85	
6,314.0	0.90	119.00	6,309.2	113.4	158.4	-155.6	0.31	-0.06	18.63	
6,409.0	2.01	170.93	6,404.2	111.4	159.3	-156.5	1.70	1.17	54.66	
6,449.8	2.05	170.30	6,445.0	110.0	159.5	-156.8	0.11	0.10	-1.54	
1st Bone Spring Ss										
6,503.0	2.10	169.52	6,498.1	108.1	159.9	-157.2	0.11	0.10	-1.47	
6,598.0	2.33	169.20	6,593.1	104.5	160.6	-157.9	0.24	0.24	-0.34	
6,692.0	2.17	167.89	6,687.0	100.9	161.3	-158.8	0.18	-0.17	-1.39	
TIE ON										
6,799.0	4.05	258.95	6,793.9	98.2	158.0	-155.6	4.33	1.76	85.10	
6,846.0	9.14	274.27	6,840.6	98.1	152.6	-150.2	11.36	10.83	32.60	
6,893.0	15.33	284.31	6,886.5	99.9	142.9	-140.4	13.88	13.17	21.36	
6,914.4	17.40	280.59	6,907.0	101.2	137.0	-134.5	10.87	9.70	-17.42	
2nd Bone Spring Ss										
6,940.0	19.96	277.13	6,931.3	102.5	128.9	-126.4	10.87	9.98	-13.49	
6,988.0	26.67	272.66	6,975.3	104.0	110.0	-107.4	14.45	13.98	-9.31	
7,035.0	30.87	271.56	7,016.5	104.8	87.4	-84.8	9.01	8.94	-2.34	
7,082.0	36.32	269.62	7,055.6	105.0	61.4	-58.8	11.82	11.60	-4.13	
7,129.0	42.29	267.55	7,092.0	104.3	31.7	-29.1	13.00	12.70	-4.40	



Microsoft
Survey Report



Company:	Cimarex	Local Co-ordinate Reference:	Well Foxx 31 Fed Com #1H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	KB @ 3235.0usft (H&P 393)
Site:	(Foxx)SEC 31_T-26-S_R-27-E	MD Reference:	KB @ 3235.0usft (H&P 393)
Well:	Foxx 31 Fed Com #1H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 10_13

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,177.0	49.43	268.79	7,125.4	103.2	-2.8	5.3	14.99	14.88	2.58
7,224.0	54.89	271.13	7,154.2	103.2	-39.9	42.4	12.26	11.62	4.98
7,271.0	61.87	274.58	7,178.9	105.2	-79.8	82.3	16.11	14.85	7.34
7,318.0	69.06	274.16	7,198.4	108.5	-122.4	125.0	15.32	15.30	-0.89
7,366.0	73.24	274.49	7,213.9	111.9	-167.7	170.4	8.73	8.71	0.69
7,377.1	74.17	273.72	7,217.0	112.7	-178.3	181.0	10.63	8.33	-6.88
2nd BS Ss Horz Target									
7,413.0	77.17	271.30	7,225.9	114.2	-213.0	215.8	10.63	8.37	-6.76
7,460.0	81.44	269.63	7,234.6	114.6	-259.2	261.9	9.73	9.09	-3.55
7,507.0	87.56	268.21	7,239.1	113.7	-306.0	308.7	13.36	13.02	-3.02
7,602.0	90.54	267.25	7,240.7	109.9	-400.9	403.4	3.30	3.14	-1.01
7,660.0	91.60	267.60	7,239.6	107.3	-458.8	461.3	1.92	1.83	0.60
7,754.0	90.22	269.45	7,238.1	104.9	-552.8	555.2	2.46	-1.47	1.97
7,849.0	88.40	271.47	7,239.2	105.7	-647.7	650.1	2.86	-1.92	2.13
7,943.0	88.13	271.25	7,242.1	107.9	-741.7	744.1	0.37	-0.29	-0.23
8,037.0	87.26	271.44	7,245.9	110.1	-835.6	838.0	0.95	-0.93	0.20
8,132.0	86.66	271.39	7,250.9	112.4	-930.4	932.9	0.63	-0.63	-0.05
8,226.0	87.25	271.55	7,255.9	114.8	-1,024.2	1,026.7	0.65	0.63	0.17
8,320.0	87.80	271.48	7,260.0	117.3	-1,118.1	1,120.6	0.59	0.59	-0.07
8,415.0	90.38	271.20	7,261.5	119.5	-1,213.1	1,215.6	2.73	2.72	-0.29
8,509.0	91.41	270.98	7,260.0	121.3	-1,307.0	1,309.6	1.12	1.10	-0.23
8,604.0	93.02	271.42	7,256.3	123.3	-1,401.9	1,404.5	1.76	1.69	0.46
8,698.0	93.30	271.89	7,251.1	126.0	-1,495.8	1,498.4	0.58	0.30	0.50
8,792.0	92.82	271.30	7,246.1	128.6	-1,589.6	1,592.3	0.81	-0.51	-0.63
8,886.0	92.14	270.37	7,242.1	130.0	-1,683.5	1,686.2	1.22	-0.72	-0.99
8,981.0	91.01	270.17	7,239.5	130.5	-1,778.4	1,781.1	1.21	-1.19	-0.21
9,075.0	88.54	270.07	7,239.8	130.7	-1,872.4	1,875.1	2.63	-2.63	-0.11
9,169.0	87.82	270.07	7,242.8	130.8	-1,966.4	1,969.0	0.77	-0.77	0.00
9,264.0	89.09	270.04	7,245.4	130.9	-2,061.4	2,063.9	1.34	1.34	-0.03
9,358.0	89.59	270.19	7,246.4	131.1	-2,155.4	2,157.9	0.56	0.53	0.16
9,452.0	88.31	269.96	7,248.2	131.2	-2,249.3	2,251.9	1.38	-1.36	-0.24
9,546.0	85.93	269.05	7,252.9	130.4	-2,343.2	2,345.7	2.71	-2.53	-0.97
9,641.0	85.34	269.11	7,260.1	128.8	-2,437.9	2,440.3	0.62	-0.62	0.06
9,735.0	86.31	269.47	7,267.0	127.7	-2,531.7	2,534.0	1.10	1.03	0.38
9,829.0	86.16	268.85	7,273.1	126.3	-2,625.4	2,627.7	0.68	-0.16	-0.66
9,923.0	87.43	268.98	7,278.4	124.5	-2,719.3	2,721.5	1.36	1.35	0.14
10,018.0	87.13	269.08	7,282.9	122.9	-2,814.2	2,816.3	0.33	-0.32	0.11
10,112.0	88.93	269.21	7,286.1	121.5	-2,908.1	2,910.2	1.92	1.91	0.14
10,207.0	91.22	269.68	7,286.0	120.6	-3,003.1	3,005.1	2.46	2.41	0.49
10,301.0	91.99	270.33	7,283.4	120.6	-3,097.0	3,099.1	1.07	0.82	0.69
10,395.0	92.98	270.68	7,279.3	121.4	-3,190.9	3,193.0	1.12	1.05	0.37
10,490.0	93.11	270.84	7,274.3	122.7	-3,285.8	3,287.8	0.22	0.14	0.17
10,584.0	93.12	271.06	7,269.1	124.3	-3,379.6	3,381.7	0.23	0.01	0.23
10,679.0	91.57	271.24	7,265.3	126.2	-3,474.5	3,476.6	1.64	-1.63	0.19



Company: Cimarex
Project: Eddy County, NM (NAD 83)
Site: (Foxy)SEC 31_T-26-S_R-27-E
Well: Foxx 31 Fed Com #1H
Wellbore: OWB
Design: AWB

Local Co-ordinate Reference: Well Foxx 31 Fed Com #1H
TVD Reference: KB @ 3235.0usft (H&P 393)
MD Reference: KB @ 3235.0usft (H&P 393)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 10_13

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,773.0	90.42	271.43	7,263.6	128.4	-3,568.5	3,570.6	1.24	-1.22	0.20
10,867.0	90.10	270.35	7,263.2	129.8	-3,662.5	3,664.6	1.20	-0.34	-1.15
10,962.0	90.01	270.41	7,263.1	130.4	-3,757.5	3,759.6	0.11	-0.09	0.06
11,056.0	89.27	270.05	7,263.7	130.8	-3,851.5	3,853.5	0.88	-0.79	-0.38
11,150.0	88.90	269.73	7,265.2	130.6	-3,945.5	3,947.5	0.52	-0.39	-0.34
11,245.0	88.79	269.99	7,267.1	130.4	-4,040.5	4,042.4	0.30	-0.12	0.27
11,339.0	88.93	268.74	7,269.0	129.4	-4,134.4	4,136.4	1.34	0.15	-1.33
11,434.0	88.64	268.04	7,271.0	126.7	-4,229.4	4,231.2	0.80	-0.31	-0.74
11,528.0	88.60	268.59	7,273.3	123.9	-4,323.3	4,325.0	0.59	-0.04	0.59
11,622.0	88.33	268.53	7,275.8	121.6	-4,417.2	4,418.9	0.29	-0.29	-0.06
11,717.0	88.62	269.32	7,278.3	119.8	-4,512.2	4,513.8	0.89	0.31	0.83
11,811.0	89.26	269.02	7,280.1	118.4	-4,606.2	4,607.7	0.75	0.68	-0.32
11,906.0	91.32	269.71	7,279.6	117.4	-4,701.1	4,702.6	2.29	2.17	0.73
12,000.0	92.79	269.52	7,276.2	116.7	-4,795.1	4,796.5	1.58	1.56	-0.20
12,035.0	93.09	269.57	7,274.4	116.5	-4,830.0	4,831.4	0.87	0.86	0.14
LAST SVY									
12,112.0	93.09	269.57	7,270.3	115.9	-4,906.9	4,908.3	0.00	0.00	0.00
PTD @ 12112.0' MD, 411' FNL, 102' FWL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Vertical Box- 20' W, 2 - actual wellpath hits target center - Rectangle (sides W240.0 H230.0 D0.0)	0.00	0.00	0.0	0.0	0.0	365,346.27	576,085.62	32° 0' 15.723 N	104° 13' 16.439 W
SHL, 270' FEL, 525' F - actual wellpath hits target center - Point	0.00	0.00	0.0	0.0	0.0	365,346.27	576,085.62	32° 0' 15.723 N	104° 13' 16.439 W
PBHL (Foxx 31 FC #1 - actual wellpath misses target center by 5.1usft at 12112.0usft MD (7270.3 TVD, 115.9 N, -4906.9 E) - Rectangle (sides W50.0 H4,600.0 D20.0)	-0.31	90.02	7,272.0	120.2	-4,909.1	365,466.46	571,176.56	32° 0' 16.959 N	104° 14' 13.451 W



Company: Cimarex
Project: Eddy County, NM (NAD 83)
Site: (Foxy)SEC 31_T-26-S_R-27-E
Well: Foxx 31 Fed Com #1H
Wellbore: OWB
Design: AWB

Local Co-ordinate Reference: Well Foxx 31 Fed Com #1H
TVD Reference: KB @ 3235.0usft (H&P 393)
MD Reference: KB @ 3235.0usft (H&P 393)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 10_13

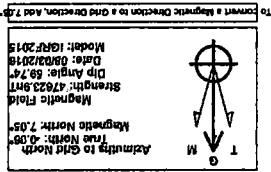
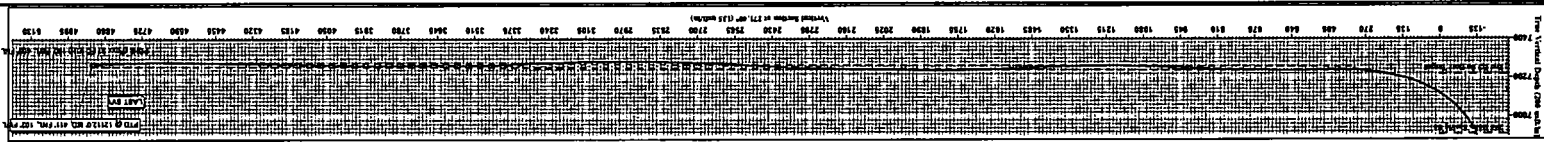
Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,245.2	1,245.0	Salado (Top Salt)			
1,704.6	1,704.0	Castille (Base Salt)			
1,925.9	1,925.0	Bell Canyon (Delaware)			
2,923.2	2,922.0	Cherry Canyon			
4,053.1	4,051.0	Brushy Canyon			
5,279.5	5,275.0	Brushy Canyon Lower			
5,499.7	5,495.0	Bone Spring			
5,621.7	5,617.0	Bone Spring "A" Shale			
6,130.7	6,126.0	Bone Spring "C" Shale			
6,449.8	6,445.0	1st Bone Spring Ss			
6,914.4	6,907.0	2nd Bone Spring Ss			
7,377.1	7,217.0	2nd BS Ss Horz Target			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,692.0	6,687.0	100.9	161.3	TIE ON
12,035.0	7,274.4	116.5	-4,830.0	LAST SVY
12,112.0	7,270.3	115.9	-4,906.9	PTD @ 12112.0' MD, 411' FNL, 102' FWL

Checked By: _____ Approved By: _____ Date: _____



FORMATION TOPS	FORMATION	DEPTH
1717.0	2nd Bb Bb Hole Target	717.0
6907.0	2nd Bone Spring Bb	6907.0
6418.0	1st Bone Spring Bb	6418.0
6126.0	Bone Spring "C" shale	6126.0
6617.0	Bone Spring "A" shale	6617.0
6496.0	Bone Spring	6496.0
6278.0	Brushy Canyon Lower	6278.0
4061.0	Brushy Canyon	4061.0
2922.0	Cherry Canyon	2922.0
1926.0	8th Canyon (Bass Bld)	1926.0
1704.0	Castro (Top Bld)	1704.0
1248.0	Salado (Top Bld)	1248.0
	Formation	

DESIGN TARGET DETAILS	NAME	TYPE	WELL	WELL	WELL
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

SECTION DETAILS	SECTION	SECTION	SECTION	SECTION	SECTION
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

WELL DETAILS: FOX 31 Fed Com B1H	WELL	WELL	WELL	WELL	WELL
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

