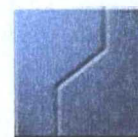


Job Number:	3098	Elev. GL:	3554.30 ft	RKB:	21.50 ft
Company:	Fasken Oil and Ranch	System:	US State Plane 1927 (Exact solution)		
Lease/Well:	Baetz 23 Federal No. 4H	Group:	New Mexico East 3001		
Location:	SE New Mexico	Datum:	CLARKE 1866		
Rig Name:	Nomac #54	Mag. Decl.:	7.27° (C:\HawkEye\IGRF2005.MIF)		
State/County:	New Mexico/ Lea	Grid Conv.:	0.32464 E		
Country:	USA	Date:	Tuesday, February 09, 2016		



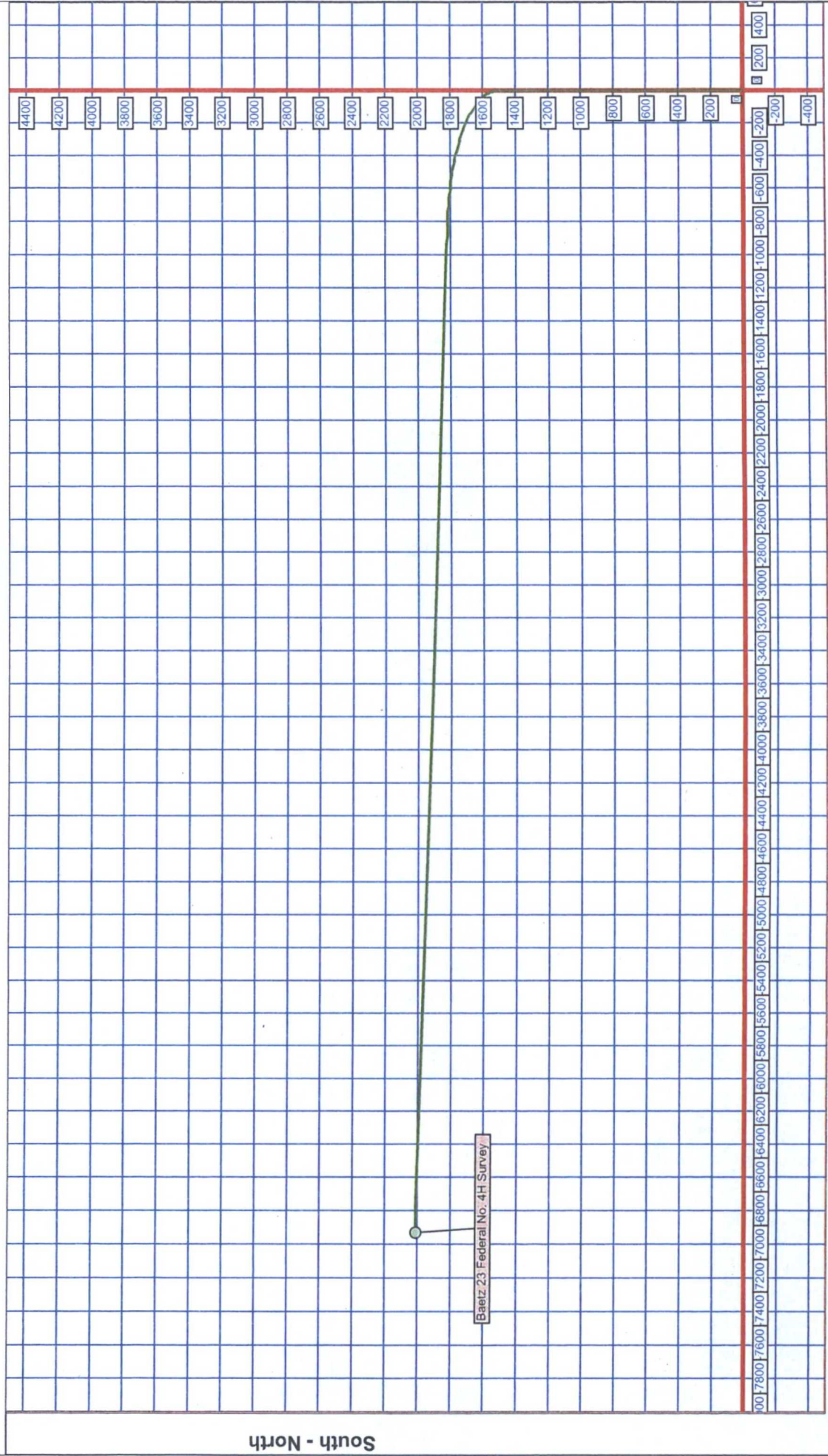
Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 353.45°
Northing (US ft): 564632.00 Easting (US ft): 685894.10
Latitude: 32°33'3.0014" N Longitude: -103°43'48.1257" W
Well Location: 164.58 FNL, 675.26 FEL, Section 26, T20S, R32E, New Mexico Principal Meridian, Lea County, NM
Direction Reference: Grid North

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	Walk Rate %/100 Ft	Build Rate %/100 Ft	DLS %/100 Ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4644.64	0.00	0.00	4644.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4674.64	0.60	0.00	4674.64	0.00	0.16	0.16	0.16	0.00	0.00	2.00	2.00
4704.64	1.20	0.00	4704.64	0.00	0.63	0.62	0.63	0.00	0.00	2.00	2.00
4734.64	1.80	0.00	4734.63	0.00	1.41	1.40	1.41	0.00	0.00	2.00	2.00
4764.64	2.40	0.00	4764.60	0.00	2.51	2.50	2.51	0.00	0.00	2.00	2.00
4794.64	3.00	0.00	4794.57	0.00	3.93	3.90	3.93	0.00	0.00	2.00	2.00
4824.64	3.60	0.00	4824.52	0.00	5.65	5.62	5.65	0.00	0.00	2.00	2.00
4854.64	4.20	0.00	4854.45	0.00	7.69	7.64	7.69	0.00	0.00	2.00	2.00
4884.64	4.80	0.00	4884.36	0.00	10.05	9.98	10.05	0.00	0.00	2.00	2.00
4914.64	5.40	0.00	4914.24	0.00	12.71	12.63	12.71	0.00	0.00	2.00	2.00
4944.64	6.00	0.00	4944.09	0.00	15.69	15.59	15.69	0.00	0.00	2.00	2.00
4974.64	6.60	0.00	4973.91	0.00	18.99	18.86	18.99	0.00	0.00	2.00	2.00
5004.64	7.20	0.00	5003.69	0.00	22.59	22.44	22.59	0.00	0.00	2.00	2.00
5034.64	7.80	0.00	5033.44	0.00	26.51	26.33	26.51	0.00	0.00	2.00	2.00
5064.64	8.40	0.00	5063.14	0.00	30.73	30.53	30.73	0.00	0.00	2.00	2.00
5094.64	9.00	0.00	5092.79	0.00	35.27	35.04	35.27	0.00	0.00	2.00	2.00
5124.64	9.60	0.00	5122.40	0.00	40.12	39.86	40.12	0.00	0.00	2.00	2.00
5154.64	10.20	0.00	5151.95	0.00	45.28	44.98	45.28	0.00	0.00	2.00	2.00
5184.64	10.80	0.00	5181.45	0.00	50.74	50.41	50.74	0.00	0.00	2.00	2.00
5214.64	11.40	0.00	5210.89	0.00	56.52	56.15	56.52	0.00	0.00	2.00	2.00
5244.64	12.00	0.00	5240.26	0.00	62.60	62.19	62.60	0.00	0.00	2.00	2.00
5274.64	12.60	0.00	5269.57	0.00	68.99	68.54	68.99	0.00	0.00	2.00	2.00
5304.64	13.20	0.00	5298.82	0.00	75.69	75.20	75.69	0.00	0.00	2.00	2.00
5334.64	13.80	0.00	5327.99	0.00	82.69	82.15	82.69	0.00	0.00	2.00	2.00
5364.64	14.40	0.00	5357.08	0.00	90.00	89.42	90.00	0.00	0.00	2.00	2.00
5394.64	15.00	0.00	5386.10	0.00	97.62	96.98	97.62	0.00	0.00	2.00	2.00
5424.64	15.60	0.00	5415.04	0.00	105.53	104.84	105.53	0.00	0.00	2.00	2.00
5454.64	16.20	0.00	5443.89	0.00	113.75	113.01	113.75	0.00	0.00	2.00	2.00
5484.64	16.80	0.00	5472.66	0.00	122.27	121.47	122.27	0.00	0.00	2.00	2.00
5514.64	17.40	0.00	5501.33	0.00	131.09	130.24	131.09	0.00	0.00	2.00	2.00
5544.64	18.00	0.00	5529.91	0.00	140.21	139.30	140.21	0.00	0.00	2.00	2.00
5574.64	18.60	0.00	5558.39	0.00	149.63	148.66	149.63	0.00	0.00	2.00	2.00
5604.64	19.20	0.00	5586.77	0.00	159.35	158.31	159.35	0.00	0.00	2.00	2.00
5634.64	19.80	0.00	5615.05	0.00	169.36	168.26	169.36	0.00	0.00	2.00	2.00
5664.64	20.40	0.00	5643.23	0.00	179.67	178.50	179.67	0.00	0.00	2.00	2.00
5694.64	21.00	0.00	5671.29	0.00	190.28	189.04	190.28	0.00	0.00	2.00	2.00
5705.61	21.22	0.00	5681.52	0.00	194.23	192.96	194.23	0.00	0.00	2.00	2.00
9313.32	21.22	0.00	9044.64	0.00	1500.00	1490.21	1500.00	0.00	0.00	0.00	0.00
9343.32	21.37	354.23	9072.59	-0.55	1510.87	1501.07	1510.87	359.98	-19.23	0.51	7.00
9373.32	21.72	348.59	9100.50	-2.20	1521.75	1512.07	1521.75	359.92	-18.81	1.16	7.00
9403.32	22.25	343.16	9128.32	-4.94	1532.63	1523.19	1532.64	359.82	-18.10	1.77	7.00
9433.32	22.95	338.01	9156.02	-8.78	1543.49	1534.42	1543.51	359.67	-17.17	2.34	7.00
9463.32	23.81	333.18	9183.56	-13.70	1554.32	1545.74	1554.38	359.49	-16.10	2.86	7.00

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	Walk Rate %/100 Ft	Build Rate %/100 Ft	DLS %/100 Ft
9493.32	24.81	328.69	9210.90	-19.71	1565.10	1557.13	1565.23	359.28	-14.96	3.33	7.00
9523.32	25.93	324.55	9238.01	-26.78	1575.83	1568.59	1576.05	359.03	-13.81	3.74	7.00
9553.32	27.17	320.74	9264.84	-34.92	1586.47	1580.10	1586.86	358.74	-12.69	4.10	7.00
9583.32	28.49	317.25	9291.38	-44.11	1597.03	1591.64	1597.64	358.42	-11.63	4.42	7.00
9613.32	29.90	314.05	9317.57	-54.35	1607.48	1603.19	1608.40	358.06	-10.66	4.69	7.00
9643.32	31.38	311.12	9343.38	-65.60	1617.82	1614.74	1619.15	357.68	-9.76	4.93	7.00
9673.32	32.92	308.44	9368.78	-77.87	1628.03	1626.28	1629.89	357.26	-8.95	5.13	7.00
9703.32	34.51	305.97	9393.74	-91.14	1638.09	1637.79	1640.62	356.82	-8.23	5.31	7.00
9733.32	36.14	303.69	9418.21	-105.38	1647.99	1649.25	1651.35	356.34	-7.58	5.46	7.00
9763.32	37.82	301.59	9442.18	-120.58	1657.71	1660.65	1662.09	355.84	-7.00	5.59	7.00
9793.32	39.53	299.65	9465.60	-136.71	1667.26	1671.97	1672.85	355.31	-6.49	5.71	7.00
9823.32	41.28	297.84	9488.44	-153.76	1676.60	1683.20	1683.64	354.76	-6.03	5.81	7.00
9853.32	43.04	296.15	9510.68	-171.70	1685.74	1694.32	1694.46	354.18	-5.62	5.90	7.00
9883.32	44.84	294.57	9532.28	-190.51	1694.65	1705.32	1705.32	353.59	-5.26	5.97	7.00
9913.32	46.65	293.09	9553.22	-210.17	1703.32	1716.18	1716.24	352.97	-4.94	6.04	7.00
9943.32	48.48	291.69	9573.46	-230.64	1711.75	1726.89	1727.22	352.33	-4.65	6.10	7.00
9973.32	50.33	290.38	9592.98	-251.90	1719.93	1737.43	1738.28	351.67	-4.39	6.15	7.00
10003.32	52.19	289.13	9611.76	-273.92	1727.83	1747.80	1749.41	350.99	-4.16	6.20	7.00
10033.32	54.06	287.94	9629.76	-296.67	1735.45	1757.97	1760.63	350.30	-3.96	6.24	7.00
10063.32	55.94	286.81	9646.97	-320.13	1742.79	1767.93	1771.95	349.59	-3.78	6.28	7.00
10093.32	57.84	285.72	9663.35	-344.25	1749.82	1777.67	1783.37	348.87	-3.61	6.31	7.00
10123.32	59.74	284.68	9678.90	-369.01	1756.55	1787.18	1794.89	348.14	-3.46	6.34	7.00
10153.32	61.65	283.68	9693.58	-394.37	1762.96	1796.44	1806.53	347.39	-3.33	6.37	7.00
10183.32	63.57	282.72	9707.39	-420.30	1769.04	1805.44	1818.28	346.64	-3.21	6.39	7.00
10213.32	65.49	281.79	9720.29	-446.76	1774.79	1814.16	1830.15	345.87	-3.11	6.41	7.00
10243.32	67.42	280.88	9732.27	-473.73	1780.19	1822.61	1842.15	345.10	-3.01	6.43	7.00
10273.32	69.36	280.00	9743.32	-501.16	1785.25	1830.76	1854.25	344.32	-2.93	6.45	7.00
10303.32	71.29	279.15	9753.42	-529.01	1789.94	1838.60	1866.48	343.54	-2.86	6.46	7.00
10333.32	73.24	278.31	9762.56	-557.25	1794.28	1846.13	1878.82	342.75	-2.79	6.48	7.00
10363.32	75.18	277.49	9770.72	-585.84	1798.24	1853.33	1891.27	341.96	-2.74	6.49	7.00
10393.32	77.13	276.68	9777.90	-614.75	1801.84	1860.20	1903.82	341.16	-2.69	6.50	7.00
10423.32	79.08	275.89	9784.08	-643.93	1805.05	1866.72	1916.47	340.37	-2.65	6.50	7.00
10453.32	81.04	275.11	9789.26	-673.34	1807.88	1872.89	1929.20	339.57	-2.61	6.51	7.00
10483.32	82.99	274.33	9793.43	-702.94	1810.32	1878.69	1942.01	338.78	-2.58	6.52	7.00
10513.32	84.95	273.56	9796.58	-732.71	1812.38	1884.13	1954.88	337.99	-2.56	6.52	7.00
10543.32	86.90	272.80	9798.71	-762.58	1814.04	1889.19	1967.81	337.20	-2.55	6.52	7.00
10573.32	88.86	272.04	9799.82	-792.53	1815.30	1893.86	1980.77	336.41	-2.54	6.52	7.00
10583.51	89.53	271.78	9799.97	-802.72	1815.64	1895.36	1985.17	336.15	-2.53	6.53	7.00
10613.51	89.83	271.78	9800.13	-832.70	1816.58	1899.71	1998.33	335.37	0.02	1.01	1.02
10643.51	90.13	271.79	9800.15	-862.69	1817.51	1904.06	2011.86	334.61	0.02	1.00	1.00
10673.51	90.43	271.79	9800.00	-892.67	1818.45	1908.41	2025.74	333.85	0.02	1.00	1.00
10703.51	90.73	271.80	9799.70	-922.66	1819.39	1912.76	2039.97	333.11	0.02	1.00	1.00
10725.51	90.95	271.80	9799.37	-944.64	1820.08	1915.96	2050.62	332.57	0.02	1.00	1.00
16564.00	90.95	271.80	9702.59	-6779.44	2003.79	2764.04	7069.37	286.47	0.00	0.00	0.00
16715.00	90.95	271.80	9700.09	-6930.34	2008.54	2785.97	7215.53	286.16	0.00	0.00	0.00

Job Number: 3098
Company: Fasken Oil and Ranch
Lease/Well: Baetz 23 Federal No. 4H
Location: SE New Mexico
Rig Name: Nomac #54
State/County: New Mexico/ Lea
Country: USA
API Number:

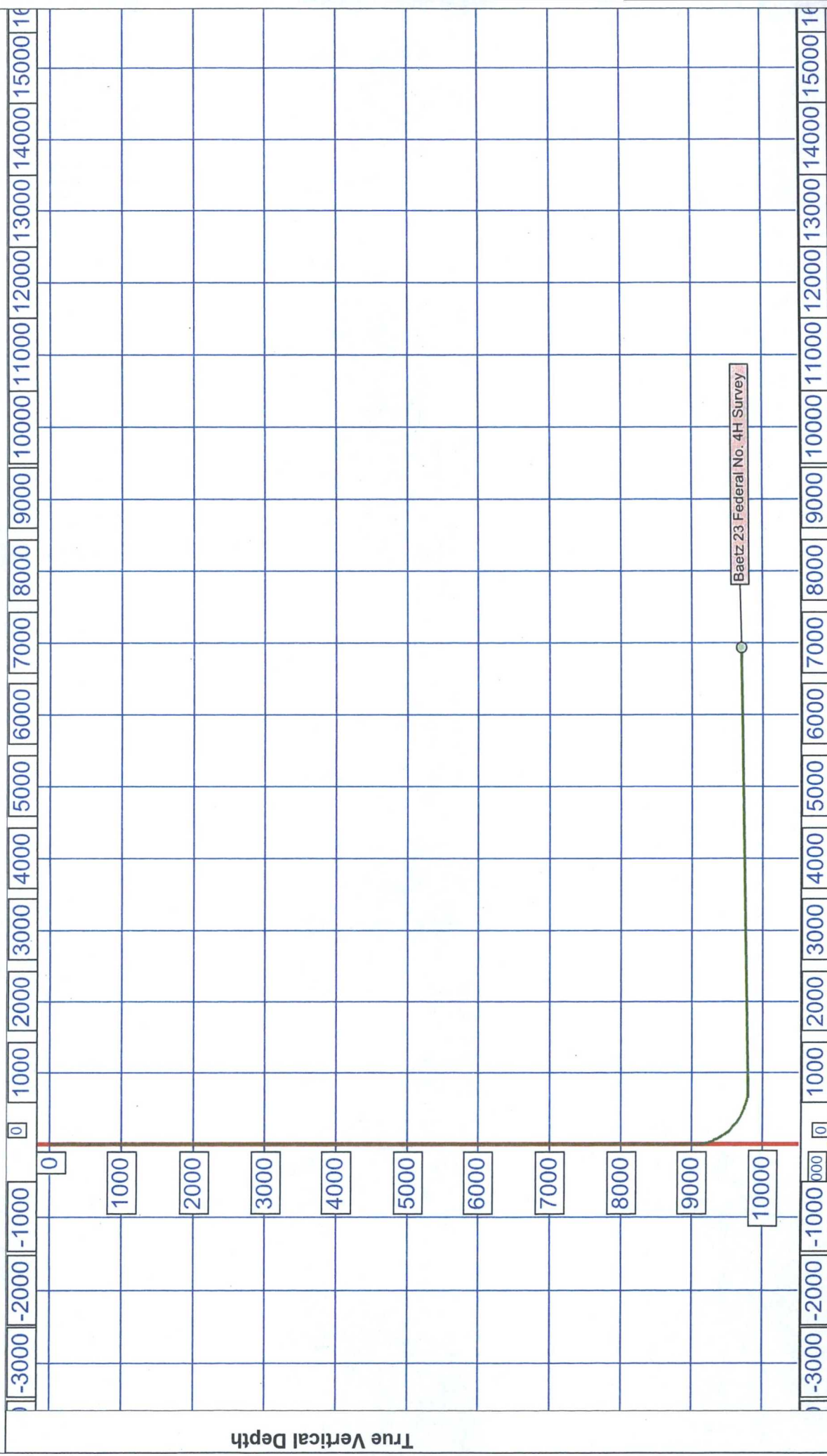
Elevation (To MSL): 3554.30 ft
RKB: 21.50 ft
Projection System: US State Plane 1927 (Exact solution)
Projection Group: New Mexico East 3001
Projection Datum: CLARKE 1866
Magnetic Declination: 7.27
Grid Convergence: 0.32464 E
Date: Tuesday, February 09, 2016



West - East

Job Number: 3098
Company: Fasken Oil and Ranch
Lease/Well: Baetz 23 Federal No. 4H
Location: SE New Mexico
Rig Name: Nomac #54
State/Country: New Mexico/ Lea
Country: USA
API Number:

Elevation (To MSL): 3554.30 ft
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Projection Group: New Mexico East 3001
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Magnetic Declination: 7.27
Grid Convergence: 0.32464 E
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Vertical Section (1000 Ft/Div) VSP: 270.00°