

# ENDEAVOUR OPERATING CO.

Location: COLORADO Slot: SLOT#01 WILEY 23-3-97 H1 (950'FSL & 1402'FEL SEC 23)  
Field: RIO BLANCO COUNTY Well: WILEY 23-3-97 H1  
Facility: SEC.23-T3N-R97W Wellbore: WILEY 23-3-97 H1 PWB

Plot reference wellpath is WILEY 23-3-97 H1 REV-F.0 PWB

True vertical depths are referenced to PATTERSON 303 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PATTERSON 303 (RKB)	North Reference: True north
PATTERSON 303 (RKB) to Mean Sea Level: 6046 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 WILEY 23-3-97 H1 (950'FSL & 1402'FEL SEC 23)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: adamkai on 7/3/2014

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.23-T3N-R97W			2234560.635	1331086.795	40°12'35.230"N	108°14'27.890"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#01 WILEY 23-3-97 H1 (950'FSL & 1402'FEL SEC 23)	0.00	0.00	2234560.635	1331086.795	40°12'35.230"N	108°14'27.890"W
PATTERSON 303 (RKB) to Mud line (At Slot: SLOT#01 WILEY 23-3-97 H1 (950'FSL & 1402'FEL SEC 23))						6046ft
Mean Sea Level to Mud line (At Slot: SLOT#01 WILEY 23-3-97 H1 (950'FSL & 1402'FEL SEC 23))						0ft
PATTERSON 303 (RKB) to Mean Sea Level						6046ft

## Survey Program

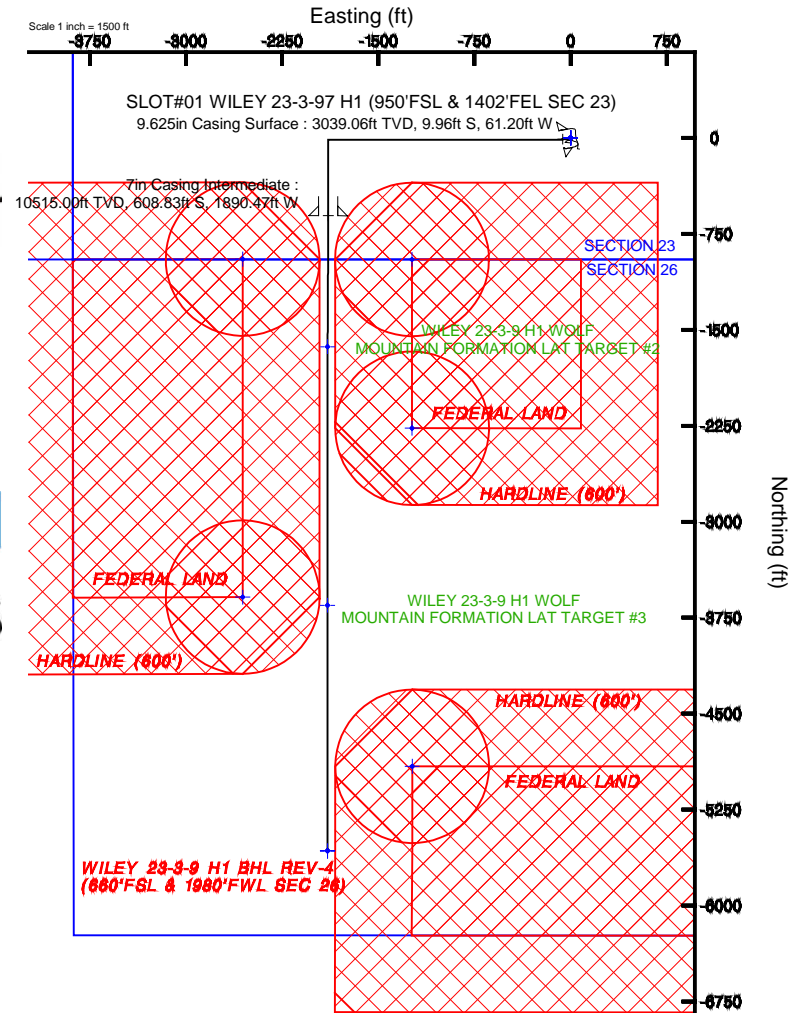
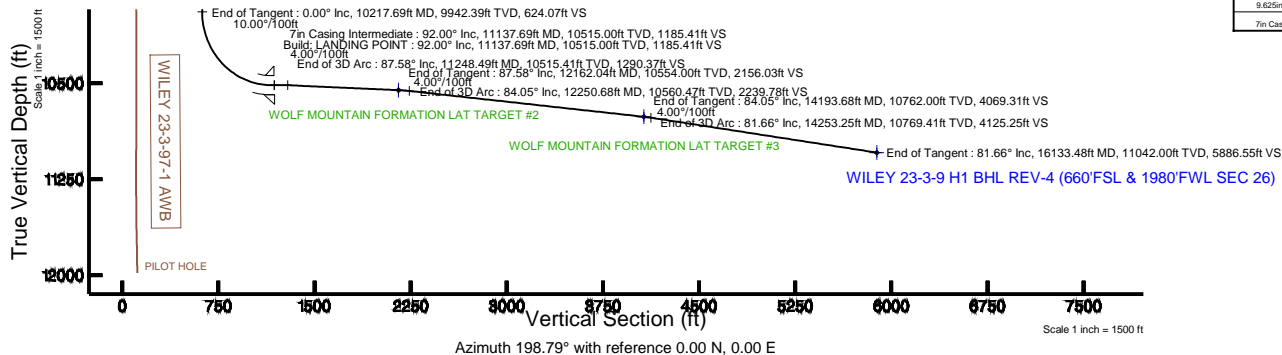
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
24.00	3244.00	ISCWSA MWD, Rev. 2	ISCWSA MWD, Rev. 2 (Standard)		WILEY 23-3-97-1 AWB
3244.00	16133.48	Navitrac	Navitrac (Standard)		WILEY 23-3-97 H1 PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	3244.00	0.400	91.910	3242.88	-15.76	-65.03	3.12	35.87
End of 3D Arc	4163.99	18.000	270.000	4148.14	-15.87	-205.17	2.00	81.12
End of Tangent	9163.99	18.000	270.000	8903.42	-15.87	-1750.26	0.00	578.90
End of Drop	10063.99	0.000	180.000	9788.69	-15.87	-1890.47	2.00	624.07
End of Tangent	10217.69	0.000	180.000	9942.39	-15.87	-1890.47	0.00	624.07
Build: LANDING POINT	11137.69	92.000	180.000	10515.00	-608.82	-1890.47	10.00	1185.41
End of 3D Arc	11248.49	87.579	180.311	10515.41	-719.60	-1890.77	4.00	1290.37
End of Tangent	12162.04	87.579	180.311	10554.00	-1632.32	-1895.72	0.00	2156.03
End of 3D Arc	12250.68	84.047	180.004	10560.47	-1720.71	-1895.96	4.00	2239.78
End of Tangent	14193.68	84.047	180.004	10762.00	-3653.23	-1896.09	0.00	4069.31
End of 3D Arc	14253.25	81.664	180.011	10769.41	-3712.33	-1896.10	4.00	4125.25
End of Tangent	16133.48	81.664	180.011	11042.00	-5572.70	-1896.44	0.00	5886.55

## Wellpath Comments

MD (ft)	X (ft)	Y (ft)	TVD (ft)	Inclination (°)	Azimuth (°)	VS (ft)	Comment
1804.31	-24.21	-11.53	1804.00	1.079	242.389	18.71	MESAVERDE
5223.71	-532.64	-15.87	5156.00	18.000	270.000	186.62	ROLLINS
6565.38	-947.24	-15.87	6432.00	18.000	270.000	320.19	MANCOS
6724.15	-996.30	-15.87	6583.00	18.000	270.000	336.00	SEGO-LOWER
7166.82	-1133.10	-15.87	7004.00	18.000	270.000	380.07	CASTLEGATE
9964.28	-1888.73	-15.87	9689.00	1.994	270.000	623.51	NIOBRARA: BUCK PEAK
10434.43	-1890.47	-56.38	10154.00	21.674	180.000	662.42	NIOBRARA: TOW CREEK
10984.77	-1890.47	-457.10	10500.00	76.708	180.000	1041.77	NIOBRARA: WOLF MTN



## Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	24.00	3040.00	3016.00	24.00	3039.06	0.00	0.00	-9.96	-61.20	WILEY 23-3-97-1 AWB
7in Casing Intermediate	3244.00	11137.69	7893.69	3242.88	10515.00	-15.76	-65.03	-608.83	-1890.47	WILEY 23-3-97 H1 PWB



BGGM (1945.0 to 2016.0) Dip: 66.19° Field: 52204.3 nT  
Magnetic North is 10.27 degrees East of True North (at 6/20/2014)

To correct azimuth from Magnetic to True add 10.27 degrees