

Well Name: Hoshiko 34-25

Surface Location: Hoshiko 34-25 Pad Sec.25-T5N-R64W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4588.0
Easting 3279510.32 Latitude 40.365410 Longitude -104.496900 Slot
RKB - 15' WELL @ 4603.0ft (RKB - 15')

+N/-S +E/-W
0.0 0.0

Northing
1377540.34

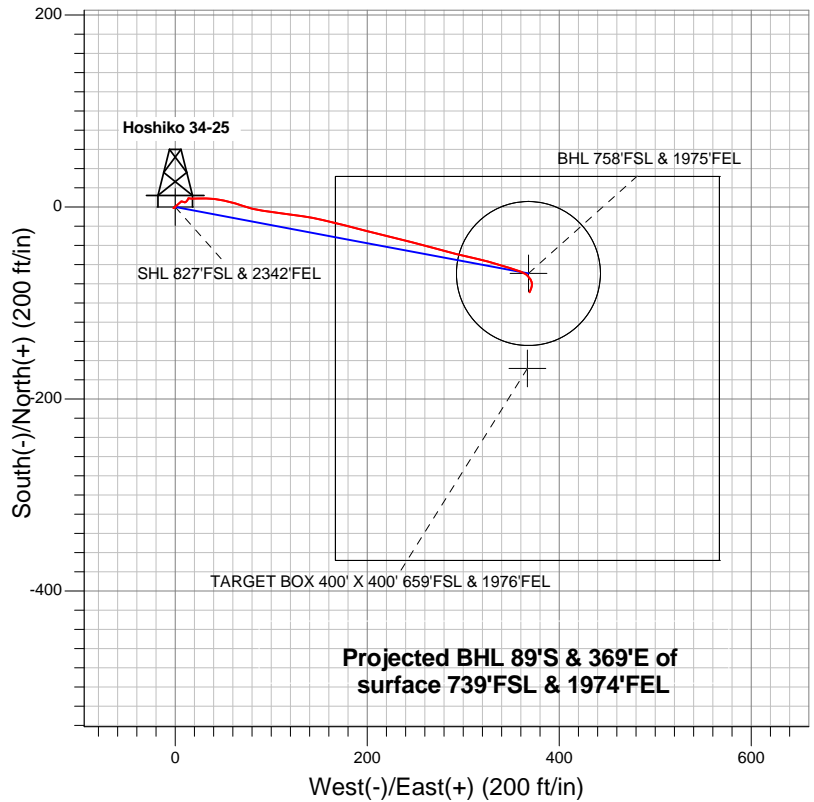
Easting
3279510.32

Latitude
40.365410

Longitude
-104.496900

Slot

Peterson Energy Operating Inc.- Weld County, CO



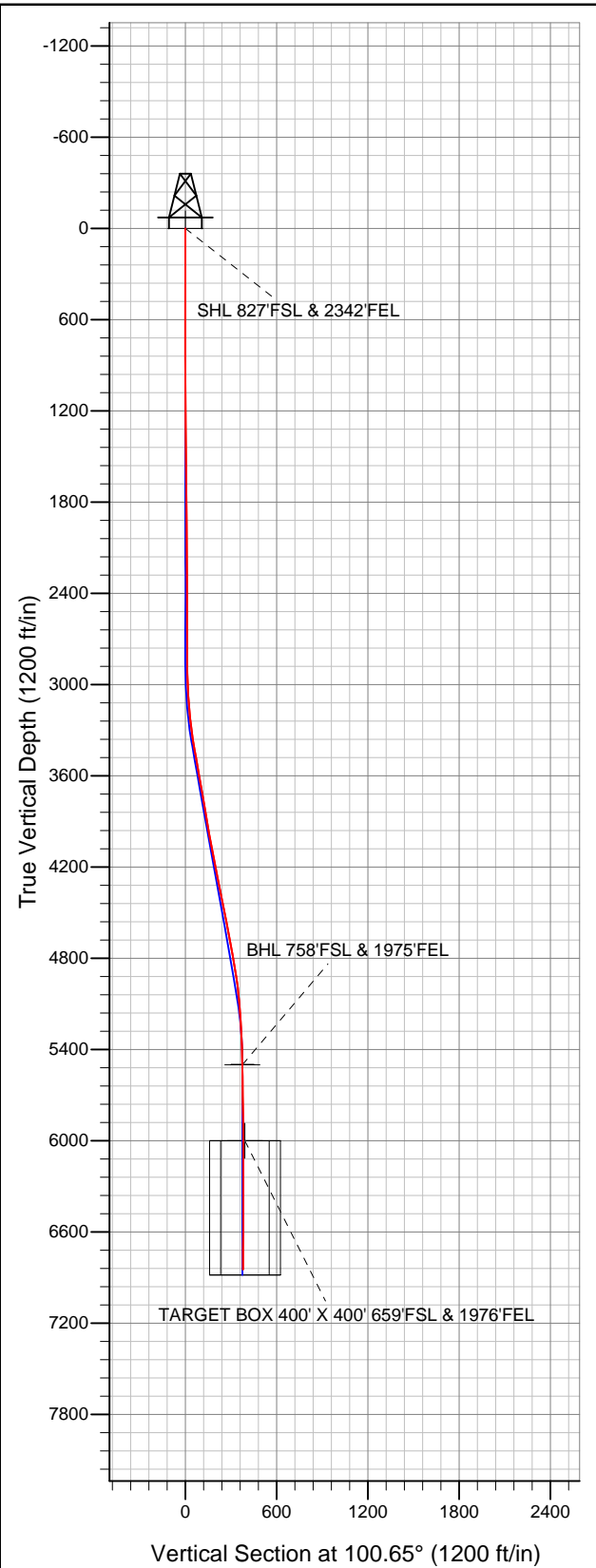
LEGEND

- ✕ Hoshiko 34-25, Wellbore #1, Plan #2 (11-30-12) V0
- ✕ Wellbore #1
- Survey #1

Final Survey Plot

**Projected Final Survey -
6877'MD & 6847'TVD @ 379'VS
0.70 deg Inc 199.40 deg AZ**

Project: SEC.25-T5N-R64W
Site: Hoshiko 34-25 Pad Sec.25-T5N-R64W
Well: Hoshiko 34-25
Plan: Wellbore #1





Directional

Peterson Energy Operating Inc.- Weld County, CO

SEC.25-T5N-R64W

Hoshiko 34-25 Pad Sec.25-T5N-R64W

Hoshiko 34-25

Wellbore #1

Survey: Survey #1

Standard Survey Report

06 December, 2012

Company:	Peterson Energy Operating Inc.- Weld County, CO	Local Co-ordinate Reference:	Well Hoshiko 34-25
Project:	SEC.25-T5N-R64W	TVD Reference:	WELL @ 4603.0ft (RKB - 15')
Site:	Hoshiko 34-25 Pad Sec.25-T5N-R64W	MD Reference:	WELL @ 4603.0ft (RKB - 15')
Well:	Hoshiko 34-25	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,850.0	0.40	89.20	1,849.9	5.6	8.2	7.1	0.05	0.00	-7.38
1,975.0	0.40	129.30	1,974.9	5.3	9.0	7.9	0.22	0.00	32.08
2,100.0	0.40	114.50	2,099.9	4.9	9.7	8.7	0.08	0.00	-11.84
2,225.0	0.60	40.90	2,224.9	5.2	10.6	9.4	0.50	0.16	-58.88
2,351.0	0.60	71.60	2,350.9	5.9	11.6	10.3	0.25	0.00	24.37
2,476.0	0.60	6.40	2,475.9	6.7	12.3	10.9	0.52	0.00	-52.16
2,601.0	0.40	69.30	2,600.9	7.5	12.8	11.2	0.44	-0.16	50.32
2,727.0	0.60	13.80	2,726.9	8.3	13.4	11.6	0.40	0.16	-44.05
2,852.0	0.20	2.90	2,851.9	9.2	13.5	11.6	0.32	-0.32	-8.72
2,977.0	2.00	103.40	2,976.8	8.9	15.7	13.8	1.64	1.44	80.40
3,102.0	4.10	85.20	3,101.7	8.8	22.3	20.2	1.83	1.68	-14.56
3,227.0	6.20	91.80	3,226.2	8.9	33.5	31.2	1.74	1.68	5.28
3,352.0	8.80	100.60	3,350.1	7.0	49.6	47.5	2.27	2.08	7.04
3,478.0	10.30	109.10	3,474.3	1.5	69.7	68.2	1.63	1.19	6.75
3,603.0	9.80	98.20	3,597.4	-3.7	90.8	89.9	1.57	-0.40	-8.72
3,728.0	10.10	97.60	3,720.5	-6.6	112.2	111.5	0.25	0.24	-0.48
3,853.0	9.20	98.20	3,843.8	-9.5	133.0	132.4	0.72	-0.72	0.48
3,979.0	10.30	102.70	3,968.0	-13.4	153.9	153.7	1.06	0.87	3.57
4,104.0	10.70	104.80	4,090.9	-18.8	176.0	176.5	0.44	0.32	1.68
4,229.0	10.70	104.10	4,213.7	-24.6	198.5	199.6	0.10	0.00	-0.56
4,354.0	11.70	103.60	4,336.3	-30.4	222.1	223.9	0.80	0.80	-0.40
4,479.0	11.30	104.30	4,458.8	-36.4	246.3	248.8	0.34	-0.32	0.56
4,605.0	10.70	106.30	4,582.5	-42.8	269.5	272.7	0.56	-0.48	1.59
4,730.0	11.40	103.30	4,705.2	-48.9	292.6	296.6	0.72	0.56	-2.40
4,855.0	9.80	102.90	4,828.0	-54.1	315.0	319.6	1.28	-1.28	-0.32
4,980.0	7.60	107.10	4,951.6	-58.9	333.3	338.4	1.83	-1.76	3.36
5,106.0	5.20	105.90	5,076.8	-62.9	346.7	352.4	1.91	-1.90	-0.95
5,231.0	3.80	110.60	5,201.4	-65.9	356.1	362.1	1.16	-1.12	3.76
5,356.0	2.80	114.20	5,326.2	-68.6	362.7	369.2	0.82	-0.80	2.88
5,481.0	1.30	136.70	5,451.1	-70.9	366.5	373.3	1.34	-1.20	18.00
5,529.9	1.17	141.86	5,500.0	-71.7	367.2	374.1	0.34	-0.26	10.56
BHL 758'FSL & 1975'FEL									
5,607.0	1.00	152.50	5,577.1	-72.9	368.0	375.1	0.34	-0.23	13.79
5,732.0	1.40	140.70	5,702.1	-75.1	369.5	377.0	0.37	0.32	-9.44
5,857.0	0.90	154.10	5,827.0	-77.1	370.8	378.7	0.45	-0.40	10.72
5,982.0	1.10	170.80	5,952.0	-79.2	371.5	379.7	0.28	0.16	13.36
6,031.1	0.81	176.27	6,001.1	-80.0	371.6	380.0	0.62	-0.59	11.14
TARGET BOX 400' X 400' 659'FSL & 1976'FEL									
6,108.0	0.40	200.50	6,078.0	-80.8	371.5	380.0	0.62	-0.53	31.51
6,233.0	0.90	194.80	6,203.0	-82.2	371.1	379.9	0.40	0.40	-4.56
6,358.0	0.60	182.50	6,328.0	-83.8	370.8	379.9	0.27	-0.24	-9.84
6,483.0	0.50	195.40	6,453.0	-85.0	370.7	380.0	0.13	-0.08	10.32
6,608.0	0.60	211.00	6,578.0	-86.0	370.2	379.7	0.14	0.08	12.48
6,733.0	0.50	195.00	6,703.0	-87.1	369.7	379.4	0.15	-0.08	-12.80
6,827.0	0.70	199.40	6,797.0	-88.1	369.4	379.3	0.22	0.21	4.68
6,877.0	0.70	199.40	6,847.0	-88.7	369.2	379.2	0.00	0.00	0.00

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Well:	Hoshiko 34-25	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Wellbore Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
SHL 827'FSL & 2342'I - survey hits target center - Point	0.00	0.00	0.0	0.0	0.0	1,377,540.35	3,279,510.32	40.365410	-104.496900
BHL 758'FSL & 1975'I - survey misses target center by 2.6ft at 5529.9ft MD (5500.0 TVD, -71.7 N, 367.2 E) - Circle (radius 75.0)	0.00	0.00	5,500.0	-69.2	367.8	1,377,475.30	3,279,878.90	40.365220	-104.495580
TARGET BOX 400' X - survey misses target center by 88.3ft at 6031.1ft MD (6001.1 TVD, -80.0 N, 371.6 E) - Rectangle (sides W400.0 H400.0 D883.0)	0.00	0.00	6,000.0	-168.2	366.8	1,377,376.30	3,279,878.98	40.364948	-104.495584

Checked By: _____ Approved By: _____ Date: _____