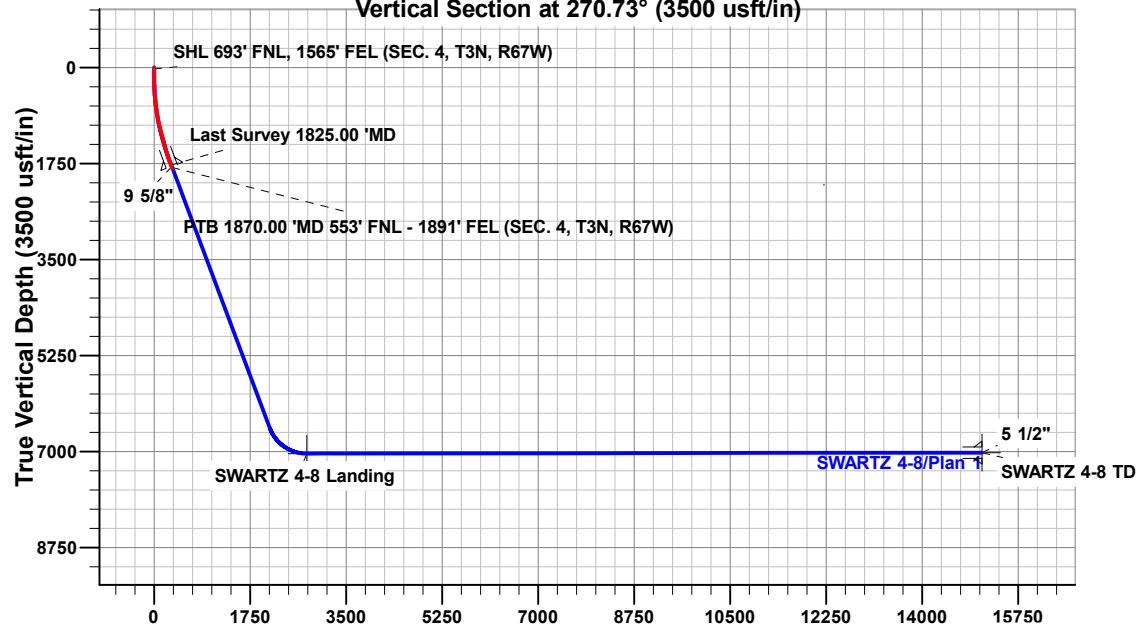


Vertical Section at 270.73° (3500 usft/in)



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
705.00	706.48	Fox Hills
3596.00	3786.39	Parkman
4078.00	4306.31	Sussex
6839.00	7322.03	Sharon Springs
6869.00	7367.41	Niobrara
7021.00	7721.84	Nio B

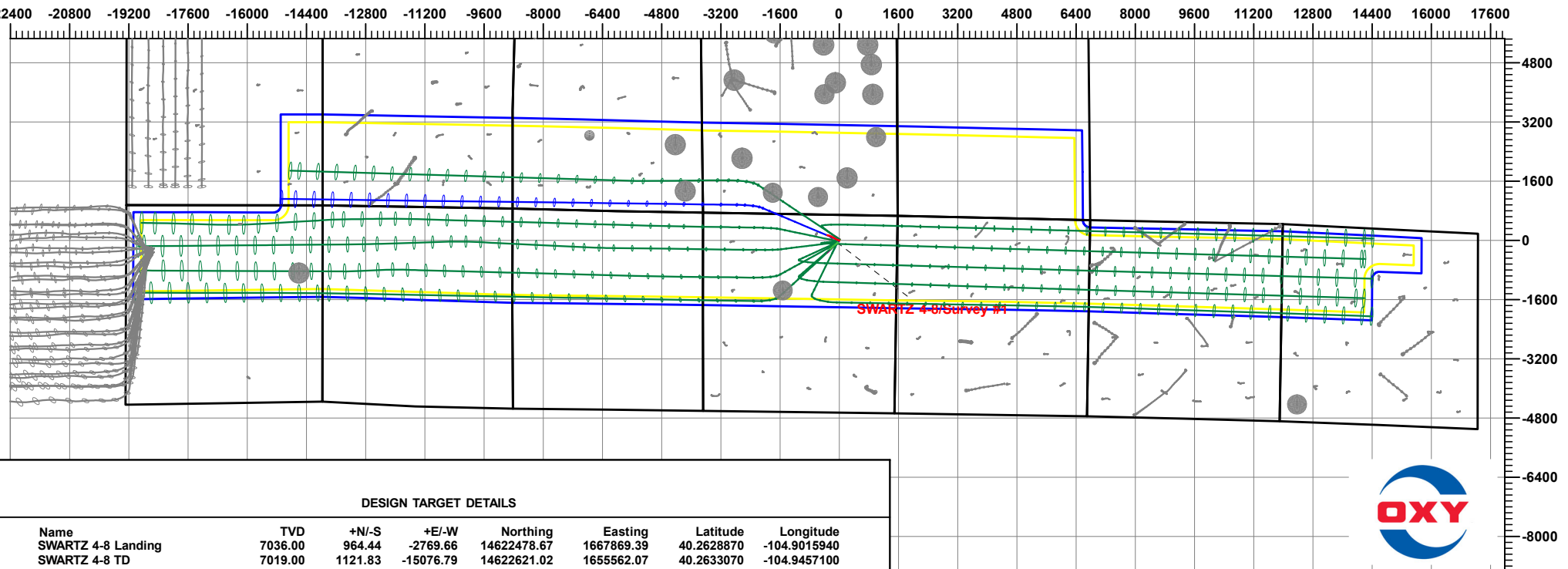
Project: Weld County, CO (UTM-NAD83)
 Site: 3N-67W-04 (Swartz Pad)
 Well: SWARTZ 4-8
 Wellbore: OH
 Design: OH

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
25.00	0.03	179.25	25.00	-0.01	0.00	0.00	0.02	SHL 693' FNL, 1565' FEL (SEC. 4, T3N, R67W)
1825.00	23.00	287.51	1778.29	139.10	-307.23	308.98	340.39	Last Survey 1825.00' MD
1870.00	23.00	287.51	1819.71	144.39	-324.00	325.81	357.97	PTB 1870.00' MD 553' FNL - 1891' FEL (SEC. 4, T3N, R67W)

West(-)/East(+) (4000 usft/in)

South(-)/North(+) (4000 usft/in)



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SWARTZ 4-8 Landing	7036.00	964.44	-2769.66	14622478.67	1667869.39	40.2628870	-104.9015940
SWARTZ 4-8 TD	7019.00	1121.83	-15076.79	14622621.02	1655562.07	40.2633070	-104.9457100



Occidental Petroleum

Weld County, CO (UTM-NAD83)

3N-67W-04 (Swartz Pad)

SWARTZ 4-8

OH

OH



Standard Survey Report

11 January, 2024

Total Report Version 1.60

COMPASS 5000.16 Build 97

Survey Report

Company:	Occidental Petroleum	Local Co-ordinate Reference:	Well SWARTZ 4-8
Project:	Weld County, CO (UTM-NAD83)	TVD Reference:	4825' GL + 15' KB @ 4840.00usft
Site:	3N-67W-04 (Swartz Pad)	MD Reference:	4825' GL + 15' KB @ 4840.00usft
Well:	SWARTZ 4-8	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Weld County, CO (UTM-NAD83)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	3N-67W-04 (Swartz Pad)		
Site Position:		Northing:	14,621,540.94 usft
From:	Lat/Long	Easting:	1,670,658.88 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	40.2603030
		Longitude:	-104.8915990

Well	SWARTZ 4-8		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	3.28 usft	Wellhead Elevation:	usft
Grid Convergence:	0.07 °	Ground Level:	4,825.00 usft
		Latitude:	40.2602390
		Longitude:	-104.8916660

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	HDGM2023	9/25/2023	(°)
			7.90
		Dip Angle	(°)
		66.40	
		Field Strength	(nT)
		51,647.70000000	

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
		Direction	(°)
		270.73	
		Tie On Depth:	0.00

Survey Program	Date	1/11/2024	
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
80.00	1,870.00	Survey #1 (OH)	APC_ISCWSA REV 2 MWD+ Fixed:v2:crustal field declination
		Description	

Survey													
Measured	Vertical		Local Coordinates		Map Coordinates		Geo Coordinates		Vertical	Dogleg	Build	Turn	
Depth	INC	AZI	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	14,621,517.61	1,670,640.22	40.2602390	-104.8916660	0.00	0.00	0.00	0.00
80.00	0.10	179.25	80.00	-0.07	0.00	14,621,517.54	1,670,640.22	40.2602388	-104.8916660	0.00	0.13	0.13	0.00
172.00	0.20	160.69	172.00	-0.30	0.06	14,621,517.31	1,670,640.28	40.2602382	-104.8916658	-0.06	0.12	0.11	-20.17
264.00	0.60	225.66	264.00	-0.79	-0.24	14,621,516.82	1,670,639.99	40.2602369	-104.8916668	0.23	0.59	0.43	70.62
354.00	2.39	272.41	353.97	-1.04	-2.45	14,621,516.57	1,670,637.77	40.2602362	-104.8916748	2.44	2.25	1.99	51.94
444.00	4.73	295.94	443.79	0.66	-7.66	14,621,518.26	1,670,632.56	40.2602408	-104.8916934	7.67	3.01	2.60	26.14

Survey Report

Company:	Occidental Petroleum	Local Co-ordinate Reference:	Well SWARTZ 4-8
Project:	Weld County, CO (UTM-NAD83)	TVD Reference:	4825' GL + 15' KB @ 4840.00usft
Site:	3N-67W-04 (Swartz Pad)	MD Reference:	4825' GL + 15' KB @ 4840.00usft
Well:	SWARTZ 4-8	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longituge (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
533.00	5.53	300.33	532.43	4.43	-14.66	14,621,522.03	1,670,625.55	40.2602512	-104.8917185	14.72	1.00	0.90	4.93
623.00	5.66	298.63	622.00	8.75	-22.30	14,621,526.33	1,670,617.91	40.2602631	-104.8917459	22.41	0.23	0.14	-1.89
706.62	8.34	290.06	705.00	12.81	-31.62	14,621,530.38	1,670,608.58	40.2602742	-104.8917793	31.78	3.43	3.21	-10.25
Fox Hills													
712.00	8.52	289.69	710.32	13.07	-32.36	14,621,530.65	1,670,607.84	40.2602749	-104.8917820	32.53	3.43	3.29	-6.80
802.00	9.93	291.39	799.15	18.15	-45.87	14,621,535.71	1,670,594.33	40.2602889	-104.8918304	46.09	1.60	1.57	1.89
891.00	10.47	293.45	886.74	24.17	-60.43	14,621,541.71	1,670,579.76	40.2603054	-104.8918826	60.73	0.73	0.61	2.31
981.00	11.10	293.18	975.15	30.83	-75.90	14,621,548.35	1,670,564.29	40.2603237	-104.8919380	76.28	0.70	0.70	-0.30
1,070.00	14.46	294.74	1,061.94	38.86	-93.87	14,621,556.35	1,670,546.31	40.2603457	-104.8920024	94.36	3.79	3.78	1.75
1,159.00	16.68	298.37	1,147.67	49.58	-115.20	14,621,567.05	1,670,524.96	40.2603752	-104.8920789	115.83	2.72	2.49	4.08
1,249.00	17.80	301.82	1,233.63	62.97	-138.26	14,621,580.41	1,670,501.89	40.2604119	-104.8921616	139.05	1.68	1.24	3.83
1,338.00	18.27	304.22	1,318.25	77.99	-161.35	14,621,595.40	1,670,478.77	40.2604532	-104.8922443	162.33	0.99	0.53	2.70
1,428.00	17.08	300.45	1,404.01	92.62	-184.41	14,621,610.01	1,670,455.70	40.2604934	-104.8923270	185.58	1.83	-1.32	-4.19
1,518.00	17.22	293.78	1,490.01	104.69	-208.00	14,621,622.05	1,670,432.09	40.2605265	-104.8924115	209.32	2.19	0.16	-7.41
1,607.00	18.30	289.89	1,574.77	114.76	-233.20	14,621,632.08	1,670,406.88	40.2605542	-104.8925019	234.64	1.80	1.21	-4.37
1,697.00	20.55	288.50	1,659.65	124.58	-261.47	14,621,641.87	1,670,378.60	40.2605811	-104.8926032	263.03	2.55	2.50	-1.54
1,786.00	22.77	287.06	1,742.36	134.59	-292.75	14,621,651.84	1,670,347.31	40.2606086	-104.8927153	294.44	2.56	2.49	-1.62
1,825.00	23.00	287.51	1,778.29	139.10	-307.23	14,621,656.33	1,670,332.82	40.2606210	-104.8927672	308.98	0.74	0.59	1.15
Last Survey 1825.00 'MD													
1,870.00	23.00	287.51	1,819.71	144.39	-324.00	14,621,661.60	1,670,316.05	40.2606355	-104.8928273	325.81	0.00	0.00	0.00
PTB 1870.00 'MD 553' FNL - 1891' FEL (SEC. 4, T3N, R67W)													

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
706.62	705.00	Fox Hills			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
1,825.00	1,778.29	139.10	-307.23	Last Survey 1825.00 'MD
1,870.00	1,819.71	144.39	-324.00	PTB 1870.00 'MD 553' FNL - 1891' FEL (SEC. 4, T3N, R67W)

Checked By: _____ Approved By: _____ Date: _____