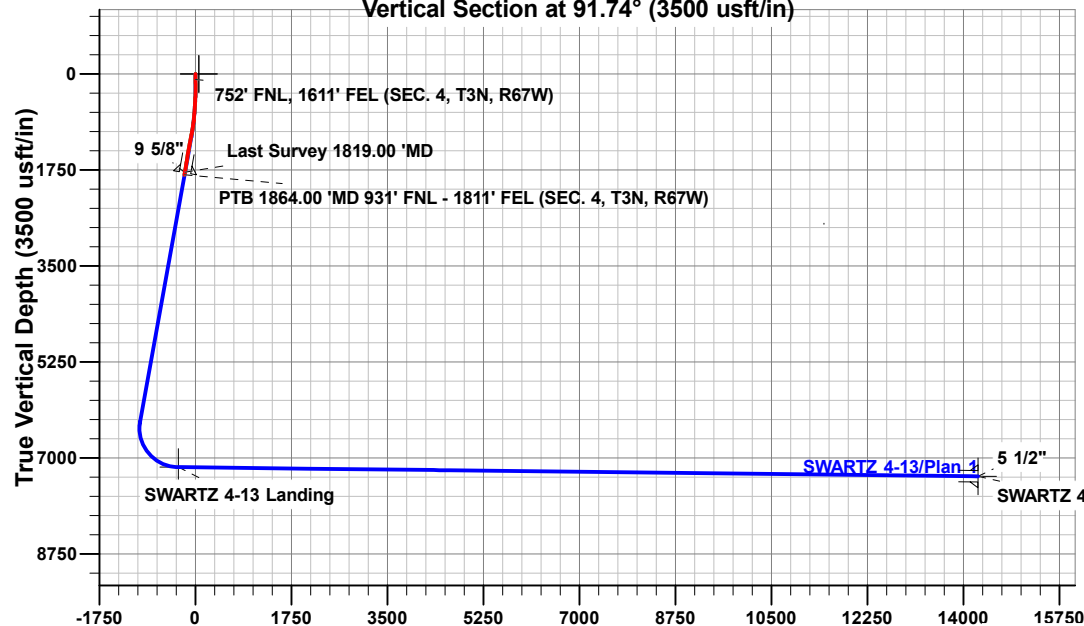


# Vertical Section at 91.74° (3500 usft/in)



## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
705.00	705.88	Fox Hills
3596.00	3676.26	Parkman
4078.00	4172.57	Sussex
6839.00	7029.22	Sharon Springs
6869.00	7065.80	Niobrara
7021.00	7280.05	Nio B
7053.00	7336.07	Nio C
7155.00	7612.70	Fort Hayes
7176.00	8444.80	Codell

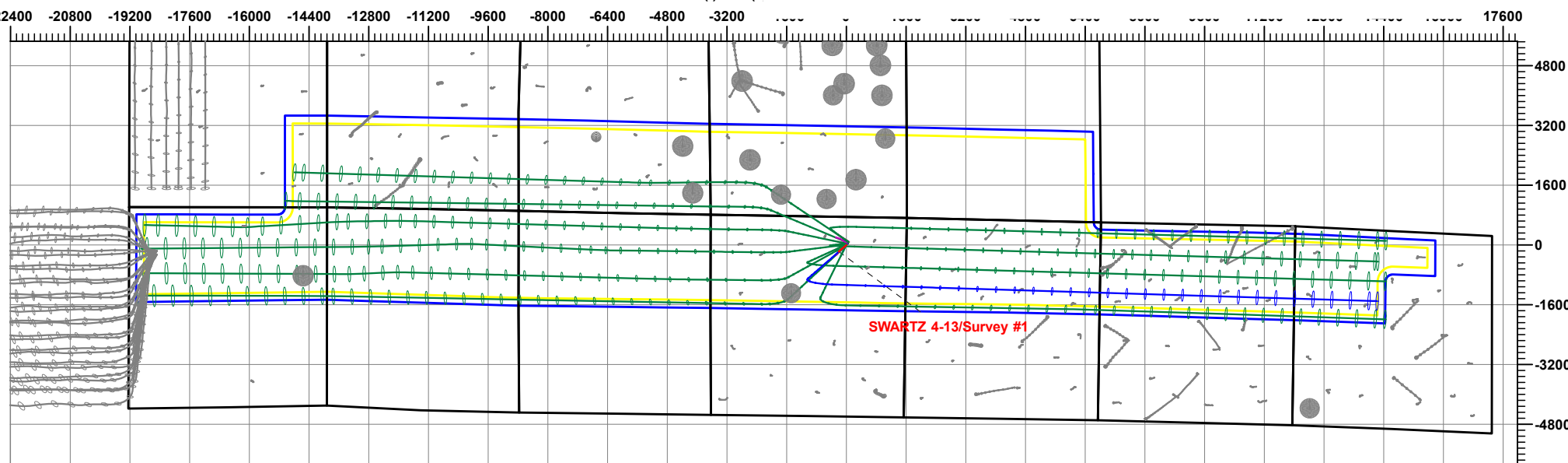
## ANNOTATIONS

Project: Weld County, CO (UTM-NAD83)  
 Site: 3N-67W-04 ( Swartz Pad )  
 Well: SWARTZ 4-13  
 Wellbore: OH  
 Design: OH

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
100.00	0.71	62.57	100.00	0.27	0.64	0.64	0.74	752' FNL, 1611' FEL (SEC. 4, T3N, R67W)
1819.00	12.87	225.34	1792.05	-168.78	-196.66	-191.45	264.35	Last Survey 1819.00 'MD
1864.00	12.87	225.34	1835.92	-175.82	-203.79	-198.36	274.37	PTB 1864.00 'MD 931' FNL - 1811' FEL (SEC. 4, T3N, R67W)

West(-)/East(+)

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



## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SWARTZ 4- Landing	0.00	81.94	65.28	14621540.94	1670658.89	40.2603030	-104.8915990
SWARTZ 4- TD	0.00	81.94	65.28	14621540.94	1670658.89	40.2603030	-104.8915990
SWARTZ 4-13 Landing	7168.00	-1058.97	-344.00	14620399.54	1670250.99	40.2571700	-104.8930660
SWARTZ 4-13 TD	7334.00	-1501.34	14225.53	14619974.95	1684821.05	40.2559440	-104.8408460



# Occidental Petroleum

Weld County, CO (UTM-NAD83)

3N-67W-04 ( Swartz Pad )

SWARTZ 4-13

OH

OH



## Standard Survey Report

11 January, 2024

*Total Report Version 1.60*

*COMPASS 5000.16 Build 97*

# Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SWARTZ 4-13
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	4825' GL + 15' KB @ 4840.00usft
<b>Site:</b>	3N-67W-04 ( Swartz Pad )	<b>MD Reference:</b>	4825' GL + 15' KB @ 4840.00usft
<b>Well:</b>	SWARTZ 4-13	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

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

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

<b>Well</b>	SWARTZ 4-13		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 14,621,458.92 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 1,670,593.70 usft
<b>Position Uncertainty</b>	3.28 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>	0.07 °	<b>Ground Level:</b>	4,825.00 usft

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

<b>Design</b>	OH		
<b>Audit Notes:</b>			
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			<b>Direction</b> (°) 91.74

<b>Survey Program</b>	<b>Date</b>	1/11/2024	
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>
(usft)	(usft)		<b>Description</b>
80.00	1,864.00	Survey #1 (OH)	APC_ISCWSA REV 2 MWD+ Fixed:v2:crustal field declination

<b>Survey</b>													
<b>Measured</b>	<b>Vertical</b>	<b>Local Coordinates</b>		<b>Map Coordinates</b>		<b>Geo Coordinates</b>		<b>Vertical</b>	<b>Dogleg</b>	<b>Build</b>	<b>Turn</b>		
<b>Depth</b>	<b>INC</b>	<b>AZI</b>	<b>Depth</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Northing</b>	<b>Easting</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Section</b>	<b>Rate</b>	<b>Rate</b>	<b>Rate</b>
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	14,621,458.93	1,670,593.70	40.2600780	-104.8918330	0.00	0.00	0.00	0.00
80.00	0.66	67.98	80.00	0.17	0.43	14,621,459.10	1,670,594.13	40.2600785	-104.8918314	0.42	0.83	0.83	0.00
100.00	0.71	62.57	100.00	0.27	0.64	14,621,459.20	1,670,594.35	40.2600788	-104.8918307	0.64	0.40	0.24	-27.03
<b>752' FNL, 1611' FEL (SEC. 4, T3N, R67W)</b>													
172.00	0.92	48.49	171.99	0.86	1.47	14,621,459.79	1,670,595.17	40.2600804	-104.8918277	1.44	0.40	0.29	-19.56
264.00	0.64	219.71	263.99	0.96	1.70	14,621,459.88	1,670,595.40	40.2600807	-104.8918269	1.67	1.69	-0.30	186.11

# Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SWARTZ 4-13
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	4825' GL + 15' KB @ 4840.00usft
<b>Site:</b>	3N-67W-04 ( Swartz Pad )	<b>MD Reference:</b>	4825' GL + 15' KB @ 4840.00usft
<b>Well:</b>	SWARTZ 4-13	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	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 (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
354.00	1.95	235.07	353.96	-0.31	0.12	14,621,458.62	1,670,593.82	40.2600772	-104.8918325	0.13	1.49	1.46	17.07
444.00	2.71	219.81	443.89	-2.82	-2.50	14,621,456.10	1,670,591.21	40.2600703	-104.8918419	-2.41	1.08	0.84	-16.96
533.00	3.90	234.76	532.74	-6.18	-6.32	14,621,452.74	1,670,587.39	40.2600611	-104.8918556	-6.13	1.64	1.34	16.80
623.00	5.59	232.10	622.43	-10.64	-12.28	14,621,448.27	1,670,581.44	40.2600488	-104.8918770	-11.95	1.89	1.88	-2.96
706.00	6.05	232.61	705.00	-15.78	-18.94	14,621,443.12	1,670,574.78	40.2600347	-104.8919009	-18.45	0.55	0.55	0.61
Fox Hills													
712.00	6.08	232.64	710.97	-16.16	-19.44	14,621,442.74	1,670,574.28	40.2600336	-104.8919027	-18.94	0.55	0.55	0.56
802.00	7.15	226.14	800.37	-22.94	-27.27	14,621,435.95	1,670,566.46	40.2600150	-104.8919307	-26.56	1.45	1.19	-7.22
891.00	10.16	226.78	888.34	-32.15	-36.99	14,621,426.73	1,670,556.76	40.2599897	-104.8919655	-35.99	3.38	3.38	0.72
981.00	11.86	227.63	976.68	-43.82	-49.61	14,621,415.04	1,670,544.15	40.2599577	-104.8920108	-48.25	1.90	1.89	0.94
1,070.00	13.29	232.52	1,063.55	-56.21	-64.48	14,621,402.64	1,670,529.29	40.2599237	-104.8920641	-62.74	2.00	1.61	5.49
1,159.00	14.60	232.86	1,149.92	-69.21	-81.54	14,621,389.62	1,670,512.25	40.2598880	-104.8921253	-79.40	1.47	1.47	0.38
1,249.00	14.92	231.43	1,236.95	-83.28	-99.64	14,621,375.52	1,670,494.16	40.2598493	-104.8921901	-97.07	0.54	0.36	-1.59
1,338.00	13.91	228.28	1,323.15	-97.54	-116.59	14,621,361.24	1,670,477.24	40.2598102	-104.8922509	-113.57	1.44	-1.13	-3.54
1,428.00	13.01	227.82	1,410.68	-111.55	-132.17	14,621,347.22	1,670,461.67	40.2597717	-104.8923067	-128.72	1.01	-1.00	-0.51
1,518.00	13.06	227.43	1,498.36	-125.23	-147.16	14,621,333.52	1,670,446.69	40.2597341	-104.8923605	-143.29	0.11	0.06	-0.43
1,607.00	12.92	227.97	1,585.08	-138.69	-161.96	14,621,320.04	1,670,431.91	40.2596972	-104.8924135	-157.67	0.21	-0.16	0.61
1,697.00	12.34	230.38	1,672.91	-151.56	-176.84	14,621,307.15	1,670,417.05	40.2596618	-104.8924668	-172.16	0.87	-0.64	2.68
1,786.00	12.38	229.08	1,759.84	-163.87	-191.38	14,621,294.82	1,670,402.53	40.2596280	-104.8925189	-186.31	0.32	0.04	-1.46
1,819.00	12.87	225.34	1,792.05	-168.78	-196.66	14,621,289.91	1,670,397.25	40.2596146	-104.8925379	-191.45	2.89	1.48	-11.33
Last Survey 1819.00 'MD													
1,864.00	12.87	225.34	1,835.92	-175.82	-203.79	14,621,282.86	1,670,390.12	40.2595952	-104.8925634	-198.36	0.00	0.00	0.00
PTB 1864.00 'MD 931' FNL - 1811' FEL (SEC. 4, T3N, R67W)													

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
706.00	705.00	Fox Hills			

## Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
100.00	100.00	0.27	0.64	752' FNL, 1611' FEL (SEC. 4, T3N, R67W)
1,819.00	1,792.05	-168.78	-196.66	Last Survey 1819.00 'MD
1,864.00	1,835.92	-175.82	-203.79	PTB 1864.00 'MD 931' FNL - 1811' FEL (SEC. 4, T3N, R67W)

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_