

Southwestern Energy Franz Thoman OHI 405H Surveys 0ft to 24383ft MD
Survey Geodetic Report
(Def Survey)



Report Date: March 17, 2020 - 10:15 AM
Client: Southwestern Energy
Field: WV Ohio County (NAD 83 UTM 17N)
Structure / Slot: 405H
Well: Franz Thoman OHI 405H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Southwestern Energy Franz Thoman OHI 405H Surveys 0ft to 24383ft MD
Survey Date: March 06, 2020
Tort / AHD / DOI / ERD Ratio: 321.502' / 20479.811 ft / 7.437 / 3.466
Coordinate Reference System: NAD83 UTM Zone 17N, US Feet
Location Lat / Long: N 40° 8' 11.94300" W 80° 39' 35.48860"
Location Grid N/E Y/X: N 14576678.0, E 1735483.696 RUS
CRS Grid Convergence Angle: 0.2193 °
Grid Scale Factor: 0.99961034
Version / Patch: 2.10.794.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 343.440° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB
TVD Reference Elevation: 1163.300 ft above MSL
Seabed / Ground Elevation: 1137.300 ft above MSL
Magnetic Declination: -8.047°
Total Gravity Field Strength: 999.3702mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52356.498 nT
Magnetic Dip Angle: 67.290
Declination Date: March 06, 2020
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence UTM: 0.2193 °
Total Corr Mag North-Grid: -8.2685 °
Local Coord Referenced To: Well Head

Table with columns: Comments, MD (ft), Inc' (ft), Azim Grid (°), TVD (ft), TVDSS (ft), VSECC (ft), NS (ft), EW (ft), DLS (ft/100m), TF (ft), BR (ft/100m), TR (ft/100m), Northing (ft), Easting (ft), Latitude (°), Longitude (°), Directional (°), Difficulty Index. The table contains multiple rows of survey data points.

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Drilling Office 2.10.794.0

09/10/2021

WV Department of Environmental Protection

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