## Tug Hill Operating Horizontal Plan R.D.H. Trust # 1-19H 1" =5000' Comanche County, Kansas TUG HILL Patterson 172 Surface Location Y=1462505.77' OPERATING As Drilled Update #8 X=1076500.88' NAD 83 0 5000 2500 2500 2500 **Vertical Section** 1" =2000' Proposed Tie-In 767.77' Displacement from S/L @ 180.26° Azimuth from S/L 0 Plane of Proposal 5453 Csg\_Pt 180.36° Azimuth Hole Direction / 179.20° Azimuth N-ZONE South-767.76'West-3.52' of S/L TVD-5453' MD-5921' Y=1461738.0', X=1076497.4' 2500 Rock-In Point 892.89' Displacement from S/L 2 180.20° Azimuth from S/L 5000 Hole Direction / 180.39° Azimuth South-892.88'West-3.07' of S/L TVD-5455' MD-6046' 3. C. S. A. Laken Land Correction Run to Perfit. Y=1461612.9', X=1076497.8' 4 0'8, 5581 W.D. 7500 As Drilled to Casing Point 2000 10000 5134.65' Displacement from S/L @ 180.37° Azimuth from S/L South-5134.55' West-33.23' of S/L TVD-5506' MD-10290' **Proposed BHL** 7399.69' Displacement from S/L Y=1457371.22', X=1076467.65' Average Angle 4000 @ 180.36° Azimuth from S/L South-7399.54' West-47.13' of S/L TVD-5524' MD-12553' Y=1455106.2', X=1076453.7'

89.39° 12553 M.D. TD

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