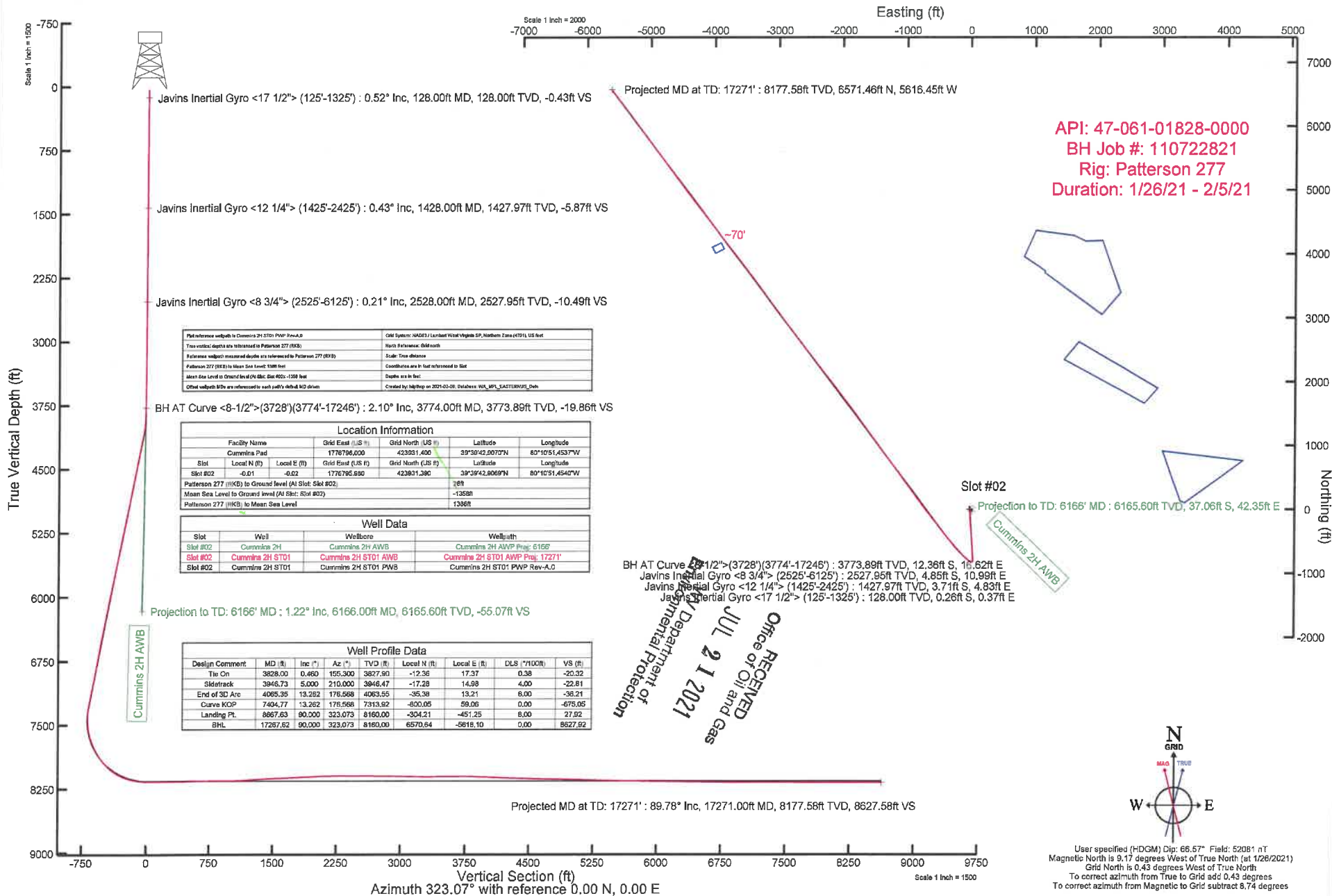


# NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV  
 Field: Monongalia  
 Facility: Cummins Pad

Slot: Slot #02  
 Well: Cummins 2H ST01  
 Wellbore: Cummins 2H ST01 PWB



API: 47-061-01828-0000  
 BH Job #: 110722821  
 Rig: Patterson 277  
 Duration: 1/26/21 - 2/5/21

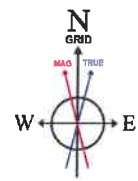
Plot reference wellpath is Cummins 2H ST01 PWB Rev-A.0	GM System: NAD83 / Lambert West Virginia SP, Northern Zone (4701), US Feet
True vertical depths are referenced to Patterson 277 (898)	North Reference: Old north
Reference wellpath measured depths are referenced to Patterson 277 (898)	Scale: True distance
Patterson 277 (898) to Mean Sea Level: 1388 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #02) : -1388 feet	Depths are in feet
Other wellpaths (PWB) are referenced to each path's default MD datum	Created by: NPTrip on 2021-02-08, Database: WLS_MPL_EASTERNUS_Dwh

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Cummins Pad	1776796.000	423951.400	39°30'42.0070"N	80°10'51.4537"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot #02	-0.01	-0.02	1776795.990	423831.390	39°39'42.8069"N
Patterson 277 (HKB) to Ground level (At Slot: Slot #02)					1388
Mean Sea Level to Ground level (At Slot: Slot #02)					-1388ft
Patterson 277 (HKB) to Mean Sea Level					1388ft

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #02	Cummins 2H	Cummins 2H AWB	Cummins 2H AWP Proj: 6166'
Slot #02	Cummins 2H ST01	Cummins 2H ST01 AWB	Cummins 2H ST01 AWP Proj: 17271'
Slot #02	Cummins 2H ST01	Cummins 2H ST01 PWB	Cummins 2H ST01 PWB Rev-A.0

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (100ft)	VS (ft)
Tie On	3828.00	0.480	195.300	3827.90	-12.36	17.37	0.38	-20.32
Sidetrack	3946.73	5.000	210.000	3946.47	-17.28	14.98	4.00	-22.81
End of 3D Arc	4065.35	13.262	176.568	4063.55	-35.38	13.21	8.00	-36.21
Curve KOP	7404.77	13.262	176.568	7313.92	-800.05	59.06	0.00	-675.05
Landing Pt.	8667.63	90.000	323.073	8160.00	-304.21	-451.25	8.00	27.92
BHL	17267.62	90.000	323.073	8160.00	6570.64	-5818.10	0.00	8627.92

RECEIVED  
 Office of Oil and Gas  
 JUL 21 2021  
 Department of Environmental Protection



User specified (HDGM) Dip: 66.57° Field: 52081 nT  
 Magnetic North is 9.17 degrees West of True North (at 1/26/2021)  
 Grid North is 0.43 degrees West of True North  
 To correct azimuth from True to Grid add 0.43 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.74 degrees

Vertical Section (ft)  
 Azimuth 323.07° with reference 0.00 N, 0.00 E  
 Scale 1 inch = 1500