

		Hornet SWD Lea County NM		Location - Sec 6, Twp 26S, R 36E Drilling and Complete Cost - \$11.0MM		TD GL/KB	19,930 3,000	Directions to Site - Travel West 6.3 miles from Jal along NM 128, turn South and travel 3.2miles to location. Lat/Long 32.10143, -103.32123		
Vertical Injection - Devonian, Silurian, Fusselman, Montoya										
Geologic Tops (MD ft)		Section	Problems	Mud	Casing	Logging	Cement (HOLD)	Injection String		
Rustler	867	Surface - Isolate Aquifers Drill 30" 0' - 1190 Set and Cement 26" Casing	Loss Circulation Hole Cleaning Wellbore stability in the Red Beds Anhydrite in the Rustler	Spud Mud MW< 9.0	1190' of 26", 202pp, X56 pipe (conn tbd) Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket at 200'	No Logs	Lead -890 sx of HES Extenda Cem, 13.7ppg, 4.5hrs TT Tail - 815 sx of Halcem 3hr TT 75% Excess 1000psi CSD after 10hrs	12,400' of 7" P110 26# TCPC		
Surface TD -	1150									
Top of Salt	1259									
Base of Salt	4774									
1st Int TD -	4800	1st Intermediate - Isolate Salt Drill 3650' of 24" Hole 1150' - 4800' Set and Cement 20" Casing	Anhydrite Salt Sections	Saturated Brine	5M A Section Casing Bowl 4800' of 20" 133# K55 STC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1600'	Lead - 1698 sx of Neocem 12.9ppg, 5hr TT Tail - 3262 sx of Halcem, 14.8ppg 60% Excess; 1000psi CSD after 10 hrs Cement to Surface			
Capitan Reef Complex		2nd Intermediate - Isolate Capitan Reef Drill 4050' of 17-1/2" Hole 4800' - 5200' Set and Cement 13-3/8" Casing	Possible Losses	Fresh Water Gel Polymer	5200' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	MWD GR Triple combo + CBL of 20" Casing	Lead - 2012 sx of Neocem 12.9ppg, 5hr TT Tail - 1847 sx of Halcem, 14.8ppg 60% Excess; 1000psi CSD after 10 hrs Cement to Surface	5795' of 5-1/2" P110 17# TCPC Duoline Internally Coated Injection Tubing		
Delaware	5216									
2nd Int TD -	5200									
ECP DV Tool -	5160									
Bell Canyon	5272	2nd Intermediate Drill 7700' of 12-1/4" Hole 5200' - 12,900' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	Hard Drilling in the Brushy Canyon	8.5 ppg OBM High Vis Sweeps UBD/MPD usig ADA	10M B Section 12900' of 9-5/8" 53.5# P110 BTC Special Drift to 8.535" Externally Coat Between DV Tools DV tool at at 9000' ECP DV Tool 15' Inside Previous Casing	MWD GR Triple combo + CBL of 13-3/8" Casing	Stage 3: 0% Excess Lead 663sx Neocem 12.9 ppg Tail 510sx Halcem 14.8ppg 1000psi CSD after 10 hrs Cement to Surface			
Cherry Canyon -	6234		Seepage to Complete Loss Water Flows		Stage 2: 25% Excess Lead 508sx Neocem 12.9 ppg Tail 590sx Halcem 14.8ppg 1000psi CSD after 10 hrs					
Brushy Canyon -	7670		Some Anhydrite H2S possible		Stage 1: 25% Excess Lead 553sx Neocem 12.9 ppg Tail 635sx Halcem 14.8ppg. 1000psi CSD after 10hrs					
DV Tool -	9000		Production in the Bone Spring and Wolfcamp		Ballooning is possible in Cherry Canyon and Brushy if Broken Down	Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing				
Bone Spring -	9090									
3rd Int Liner Top -	12,400									
Wolfcamp -	12670									
2nd Int TD -	12,900									
Strawn -	13220	3rd Intermediate Drill 5320' of 8-1/2" Hole 12900 - 18220' Set 7-5/8" Liner and Cement in Single Stage	High Pressure (up to 15ppg) and wellbore instability (fracturing) expected in the Atoka	12.5 ppg OBM UBD/MPD using ADA	5320' of 7-5/8" 39# LS 140 - DTL (FJ4) FJ (Gas Tight) VersaFlex Packer Hanger	MWD GR Triple combo, CBL of 9-5/8" Casing	Lead 249sx Neocem 12.9 ppg Tail 101sx Halcem 14.8ppg. 1000psi CSD after 10hrs 8hr TT 35% Excess 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Inconel 925 trim		
Atoka -	14338									
Morrow -	15174		150 target radius Hard Drilling in the Morrow Clastic							
Miss Lst -	17572									
Woodford -	17980									
Perm Packer -	18,195									
3rd Int TD -	18,220									
Devonian - 18,190			Chert is possible			MWD GR				
Fusselman - 19335		Injection Interval Drill 1710' of 6-1/2" hole 18220' - 19930'	Loss of Circulation is expected	Fresh Water - possible flows	Openhole completion	Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCl (or heavier brine if necessary)			
Montoya - 19,830'			H2S encountered on the Striker 3 well							
TD - 19,930'			BHT estimated at 280F							