

Geologic Prognosis:

API # Magnuson
Well Name 22-34 vertical
Well Number

Location Info (from survey plat)

T7N R65W Sec 26
Surface Feet 349 FSL FNL/FSL Feet 1990 FEL/FWL 40.55427 NAD 83 LONG 104.76143
Bottom Hole same
Drilling Rig 4900 KB Elev. 4914 (assume 14' for Cade rig)
Surface Elevation (GL)
Hardline Information: single well pad



All Depths at Surface Location

	TVD	Depth	SS	TVD	MD
	#VALUE!	####			
Base of Fox Hills / Top Pierre	658	4256			658
Surface Casing Depth	2814	2100			2814
Greeley Sand	3839	1075			3839
Parkman	4634	280			4634
Sussex	5064	-150			5064
Shannon	NA			NA	
KOP					
Top of Cement	6794	-1880			6794
Niobrara	7094	-2180			7094
Fort Hayes	7374	-2460			7374
Codell	7404	-2490			7404
Greenhorn	7534	-2620			7534
TD	7554	-2640			7554

Instruction for Directional drilling Plan:

NA

Mud Program:

Surface Hole: Top 0 Base 658 Fluid Native Mud and Water

Production Hole above Niobrara 658 6694 LSND (Low Solid Non-Dispersed Drilling Mud)
Mud up 400' above Niobrara 6472 7554 maintain the following properties:

VIS: 40; raise to 55 for logs
WT: 8.9 to 9.2 # per gal
WL: 8-10 cc from mud up to TD

Sample Description Program:

30 Ft. Samples from 7044 to 7364
20 Ft. Samples from 7364 to 7444

Wellsite Geologists: Goolsby Brothers and Assoc.
Mathew Goolsby (303) 618-7736; Mark Scanniello (303) 818-2134, Robin Brackman (303) 717-7779
Tekabe Gedamu (202) 295-7077; Marek Ciesnik (303) 525-2730

For this well Geologist will be: TBD
Geologist will be called when mudding up for Niobrara

Open Hole Logging Program:

Please run open hole logging suite including GR, SP, Neutron, density and resistivity curves from TD to surface casing.

Casing Summary:

Surface Hole Size 12-1/4"
Surface Casing Size 8-5/8" # Per Foot 24
Surface Setting Depth 650
Cement to Surface running 100% excess.
Type of Cement for surface Class G
Approximate Sacks of Cement 539.1926

Setting Depth of Production Casing 7554
Production Hole Size 7-7/8"
Production Casing Size 4-1/2"
Production Cement type Class G
Approximate Sacks of Cement 255,1907

per Foot 11.6

	<u>Surface</u>		<u>BHL</u>		
Well	Lat	Long	Lat	Long	Dist from Nearest point

No issues. Single well pad

Contact List for Great Western Personell

	Email	Cell Phone	Office Phone
Jay Pape			
Mark Scaniella - wellsite geologist	scanifam@comcast.net	970-302-6017	
Jack Bruner - Production Super.	jbruner@gwogco.com	303-818-2134	970-686-8831
Paul Salaz - Completions Eng.	psalaz@gwogco.com	970-300-8040	
Robin Swank - Geologist	rswank@gwogco.com	303-877-3388	303-398-0354
Tom Rand - VP Operations	trand@gwogco.com	720-272-6697	303-398-0391
		970-531-8736	303-398-0309

GENERAL PROCEDURES/COMMENTS

- 1) Company representatives will alert third parties.
- 2) Wait on cement Eight (8) hours. Install and Wait a minimum Eight (8) hours prior to testing BOP before drilling out surface.
- 3) At TD, short trip the Niobrara, then circulate 90 minutes or until mud is conditioned.
Pipe to be laid down for logs.
- 4) All samples to be **washed, bagged and hung in clean, dry area.**
- 5) All access roads to be clearly marked with rig signs as required by COGCC.

WELL SPECIFIC REQUIREMENTS/REMARKS

- 1) Provide 48 hr notice of MIRU to Ed Binkly, 970-506-9834; Bo Brown 970-330-6085
- 2) Minimum 200' cement above **Niobrara, check permit for uphole formation cement requirements.**
need to be checked