

# Proposed Well Abandonment for Bypass Operations "Sturgis North" Prospect

Last Update: Langdon 5/27/2008

**CONFIDENTIAL**

Well: OCS-G-23018 #1, Atwater Valley 138 Loc D  
Mudline Location: X= 786,393 Y= 10,097,821 (NAD 27 BLM 16)  
Lat N 27° 48' 04.709" Long W 89° 38' 31.433"  
BHL Location: X= 786,393 Y= 10,097,821 Z = 31,150' TVD  
OBJECTIVES: 18.0 Miocene @ 28,749' TVD  
DIRECTIONAL: Straight Hole : 1000' radius @ TD' of 31,150' RKB  
Rig: Ensco 7500  
WBS No. "UWXEX-E7008-DRL".  
API Well Number: 60818406800  
Latitude/Longitude.: Lat N27 48 04.709 Long W89 38 31.433 (same as surface)  
KB to MSL (ft): 72'  
Water Depth (ft): 3480'  
KB to ML (ft): 3552'  
18-3/4" HPWH @ 3536' (16' AML)  
36" Housing @ 3540' (12' AML)

EVAL PROG	GEOLOGIC MARKERS OBJECTIVES	MD	HOLE SIZE	CASING & CEMENT	MUD MW	LOT OBG/FG	DIRECTIONAL PROGRAM
10,000 psi 16" SA @ 3,589'	(37' BML)	3,880'	36" Jettied to 318' BML (120' x 2", 50' 1.5" X 1", 160' x 1")				
Top of 16" HGR @ 3,586'	(318' BML)	4,310'	30" x 32" Hole TD = 4,350'	28" 218.27 ppf 0.75" X-52 RL-4SL (3,545' - 4310')	Sea Water		
MWD/LWD v TD	(788' BML)	4,310'	Burst Disk @ 4,431' (3500 psi) in 1" wall	Foam Cement @ mud-line	11.5 - 14.9 ppg DKD		
18" SA @ 5,557' (2,005' BML)		6,287'	26" Hole TD = 6,230'	23" 448 ppf 2" X-80 (3537' - 3590') 22" 328 ppf 1.5" X-80 x H-90D (3590' - 3630') 22" 224 ppf 1" X-80 S-90/MT (3630' - 4434') 22" 170 ppf 0.75" X-60 S-60/MT (4434' - 6287')	Pad Mud 15.5 ppg		Straight Hole
	(2,735' BML)	7,782'	Collapse Disk @ 5,900'	Foam Cement @ mud-line	12.0 ppg LOT		
TOS @ 6,844' RKB (3,292' BML)		7,782'	18-1/8" x 21" Hole TD = 7,900'	18" 117 ppf, P110, Hyd 511 (5,557'-6,300') 17 7/8" 93.5 ppf, P110HC, Hyd 521 (6,300'-7,782')	SBM 11.3 PPG		Straight Hole
	(4,230' BML)	15,466'	16-1/2" x 19" Hole TD = 15,600'	TOC @ 6,087'	14.5 ppg FIT		
Top of 13 5/8" Liner @ 15,226'		15,466'	TOC @ 12,466'	16.04" 109.6 ppf, HPQ-125 SLSF (3,586'-7,094') 16" 97 ppf, HPQ-125 SLSF (7,094'-9,144) 16" 97 ppf, HCC-125 Hydrii 523 (9,144'-15,466')	SBM 11.6 - 13.6 PPG		Straight Hole
	(11,914' BML)	15,466'	19" Hole to 15,500'		16.3 ppg FIT		
BOS @ 20,404' (16,852' BML)		20,892'	14-1/2" x 16-1/2" Hole TD = 20,910'	13 5/8" 88.2 ppf, Q-125, SLSF (20,006'-15,226') 14" 112 ppf, Q-125, SLSF (20,666'-20,006') 13 5/8" 88.2 ppf, Q-125, SLSF (20,892'-20,666')	SBM 13.5 - 16.0 ppg		Straight Hole
Top of 11 7/8" Liner @ 20,436'		20,892'	16.5" Hole to 20,772'		16.3 ppg FIT		
	(17,310' BML)	20,892'	14.5" Hole to 20,910'		SBM 15.8 - 16.0 ppg		
TOC @ 20,910'		22,841'	12 1/4" x 13 1/2" Hole TD = 22,974'	11 7/8" 71.8 ppf Q-125 HYD 513 (20,436' - 22,841')	16.5 ppg LOT		Straight Hole
9 5/8" x 11 7/8" SET TOL @ 22,234'		22,841'	ESZV above SET TOL @ +/- 22,230'. Whipstock To be set above ESZV for Sidetrack Operations				
	(19,289 BML)	24,853'	Note: 100bbls of 17.0ppg Class H cement. SET requires Unexpanded SET (ID = 8.921") from 22,234' - 24,699'.				
Note: 3 cut attempts made to pull 9 5/8" SET @ 23450', 23306', 23166'. Each attempt unsuccessful.		24,853'	10 5/8" x 12 1/4" Hole		SBM 15.9 - 16.1 ppg		
100bbls of cement will fill SET to lower cut point, and liner lap.		24,853'	TOC @ 24,150'				
12 1/4" hole @ 24,840'		24,853'	Approx 154 ft of SET expanded to 9.875" Drift ID	11 7/8 x 9 5/8" SET 36 ppf EX-80 (22,234' - 24,853')			Straight Hole
	(21,301' BML)	24,853'					