

PLUGGING SPECIFICATIONS

SUBJECT WELL

Rio Petro Sundhagen # 1
NENE Sec.10-T158N-R96W
Williams County, ND
Well File No. 7168

INTRODUCTION

The objective of this project is to plug the above referenced well, in compliance with requirements of Chapter 43-02-03 of the North Dakota Administrative Code.

WELL DATA

13 5/8" Conductor casing @ 464' cemented to surface, 9 5/8" surface casing @ 2987, cemented to 950', 7" intermediate casing @ 13219', cemented to 5650', On 9/1/2009, 10,000' of 4 1/2" 9.5# casing liner was run, the casing parted at the surface with an estimated top of fish at 1000'. CBL on file. TOC @ 5650'

Formation tops possibly needing plugs– Dawson Bay 10847', Bakken 9652', Amsden 6806', Dakota 4875, surface shoe 2987', surface plug

SPECIFICATIONS

- A. The contractor must be prepared to, and shall, control any blow/flow from the well in order to minimize surface damage and to limit liabilities.
- B. Contractor shall arrange for all tools, equipment, products, fluids and any other items required to properly plug this well. Contractor is responsible for disposal of all fluids.
- C. Once plugging procedures begin, these specifications are subject to change with approval of the NDIC Oil & Gas Division field inspector if down-hole conditions warrant.
- D. Plugging Procedure:

Note: All cement must be API class G or Premium, 15.8 ppg.

1. Test deadmen anchors, MIRU, make sure well is dead, unflange wellhead, NU BOPs. PU work string, Assuming liner top at approximately 1000'. PU overshot, TIH and latch on to fish. Jar fish to see if can remove liner without cutting it.

If liner cannot be pulled, rig up wireline, TIH with gauge ring as deep as possible.

2. Pick up free point tool and find casing liner free point.
 3. Trip in hole with casing cutter and cut liner above free point.
 4. Pull casing liner.
 5. Roll hole with clean heavy produced water, PU work string and TIH to 10,800' or as deep as possible.
 6. Spot 150' balanced plug with 35% silica flour at 10,800'.
 7. Spot 150' balanced plug at 9600'.
 8. Spot 150' balanced plug at 6800'.
 9. Spot 150' balanced plug at 3050'. (Note: Base of surface casing was perfed and squeezed in 2001)
 10. Establish circulation out surface casing, mix and pump cement plug 60' to surface inside and outside 7" casing,
 11. Cut off wellhead 4' below surface and weld on cap.
 12. Dig up and pull out dead men.
 13. File form 7 plugging report upon completion of plugging.
- H. Certain information from NDIC files concerning the well is represented in the WELL DATA paragraph. The information represents, to the best of the Commission's knowledge, the well bore and well site conditions of the well to be plugged. Actual conditions may be different. The complete well file may be examined at the Bismarck office of the NDIC Oil & Gas Division, 1016 East Calgary Avenue, Bismarck, ND.
- I. Contractor shall notify the Commission 48 hours before commencing the plugging operations.
- J. Contractor guarantees, against defects and workmanship, all work performed under the contract for a period of one year from the date of the Commission's final acceptance of the plugging. Contractor shall bear the entire cost and expense of all repairs that may, from any imperfection in work or material, be necessary within that time. Contractor shall not be liable for equipment, material, or workmanship supplied by the Commission.