STRATEGIC OIL & GAS LTD. c/o ALVAREZ & MARSAL CANADA INC

STRATEGIC ET AL CAMERON

B-38 60-10N 117-30W

Wellbore Abandonment

August 10, 2021

CONTACTS:

Engineering:	Ken Nikiforuk		Cell	403 804-2510
Field Consultant:	To be determined		Cell	
Production Foreman:	To be determined		Cell	
Construction:	To be determined		Cell	
Facilities :	Kurt Hewitt		Cell	780 830-8303
Director, A&M:	Duncan MacRae	403 538-7514	Cell	403 815-0297

ATTACHMENTS:

OBJECTIVES:

To perform operations to abandon this wellbore and cut and cap

SAFETY:

SOG Completions safety guidelines given in the “Employee Safety Manual”, the “Contractor’s HSE Pamphlet” and the “SOG Cameron Hills HSE Assurance plan” will be followed during all completion activities**.** Discuss the contents of the Contractor’s HSE Pamphlet with the rig crew plus all service company personnel prior to the commencing work. Conduct a service rig safety inspection. Fill out the “Service Rig Safety Inspection” sheets; discuss and remedy all unsatisfactory comments and document when follow-up is completed on the daily reports. **Safety meetings are to be held with all on site personnel prior to each event. The wellsite supervisor must notify all personnel of potential hazards and ensure workers are aware of the responsibilities and duties in accordance with the SOG and OROGO regulations and that all workers comply with these regulations. A record of all safety meeting minutes and hazard assessments should be kept on site and submitted along with the daily reports to the Calgary Office at the end of the job. All service companies supplying materials will review Material Safety Data Sheets at the safety meetings and keep the MSDS papers posted on site.**

Contact the lead operator 48 hours prior to moving on to the lease. If this is an existing lease with production equipment, one of the operators should provide site-specific safety concerns and isolate the production equipment as required.

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UWI: 300B386010117300 **OROGO Well ID:** 2002

AFE: to be determined **WORKING INTEREST: 88%**

ELEVATIONS: KB: 729.9 m
GL: 725.3 m

TD: 1652.0 mKB **TVD**: 1477.1 mKB **PBTD**: 6.0 mKB (BP and cement)

DEVIATION: Directional wellbore.

SURFACE CASING: 219.1 mm, 35.72 kg/m, J-55, ST&C. Landed @ 431.0 m KB. Cemented with 32.0 tonnes 0:1:0 'G' + 2.0% $CaCl_2$. 1.5 m^3 of good cement returns to surface.

PRODUCTION CASING: 139.7 mm, 23.07 kg/m, J-55, LT&C. Landed at 1515.0 mKB. Cemented with 30.0 tonnes Thixlite + 1.0% SMS followed by 12.0 tonnes Expandomix LWL + 0.1% CFL-3 + 0.2% LTR. 1.5 m3 cement returns to surface.

TUBULAR DATA:

	Casing	Tubing
Size (mm)	139.7	73.0
Weight (kg/m)	23.07	9.67
Grade	J-55	J-55
Connections	LT&C	EUE
Drift I.D. (mm)	122.56	59.61
Collapse (kPa)	27860	52950
Burst (kPa)	30160	50060
Capacity (m^3/m)	0.012416	0.003019

PERFORATIONS:

Keg River	**1609.5 to 1613.0 mKB (abandoned)**
BP and cement	**1595.0 to 1605.0 mKB**
Sulphur Point	**1522.5 to 1525.5 mKB (abandoned)**
Sulphur Point	**1517.5 to 1519.0 mKB (abandoned)**
BP and cement	**1500.0 to 1510.0 mKB**
BP and cement	**6.0 to 21.0 mKB**

H2S: **unknown (assume 2%)**
RESERVOIR PRESSURE: **7300 kPa from static gradient dated Mar 2, 2006 – 5.3 kPa/m**
MAX FLARE VOLUME: **1.5 times wellbore volume at 10 MPa = 2.8 e3m3**
Note that any significant flare volume in this operation is unexpected

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1. Contact the on shift Area Foreman – to be determined - 48 hours prior to moving rig to location.

2. Hold and record a safety and procedural meeting with all personnel on location. Review and confirm safety certificates of all workers. Job hazard analysis is to be performed on all critical tasks. Complete a site specific ERP form and review it at the safety meeting if required.

3. A sweep of the wellsite shall be performed to confirm the presence or absence of LEL and H2S.

4. Read and record SICP.

5. Conduct a 10 minute bubble test on the surface casing vent using the procedure found in OROGO's Well Suspension and Abandonment Guidelines section 4B. Ensure that the wellhead and SCV piping is not in a frozen state. Check and monitor LEL and H2S levels at wellhead and investigate for evidence of gas migration at surface. Report the results on the daily report and the AER form "Surface Casing Vent Flow FAC-38". Ensure that the vent stays open and clear of obstructions throughout all operations and note any subsequent flows on the daily report. **Contact Ken Nikiforuk with the results of the bubble test**.

6. MIRU service rig complete with pump, tank and Class III BOP's. Rig up all equipment to SOG and OROGO requirements. RU P-tank, safety services and an air trailer. Conduct a walk around lease inspection and hazard assessment. Ensure all necessary safety equipment is strategically positioned on site and tested to ensure proper operating condition prior to commencing the zonal abandonment operations. Document all controls initiated to mitigate identified hazards.

7. The reservoir is underpressured (less than 10 kPa/m) so fresh water will suffice to kill the well. Ensure there is at least 1.5 times hole volume on location prior to commencing kill operations.

8. Pressure test the casing to 7000 kPa for ten minutes.

9. Bleed off casing to P-tank.

10. Install the working spool and BOP's onto the BOP test stump. If required, warm up the BOP stack with steam. Function test the blind rams and pipe rams on the test stump. Close the blind rams and pressure test the working spool, the blind rams and BOP flange 1400 kPa and 21 MPa for 10 minutes each. Install a ported tubing pup and stabbing valve through the BOP's on the BOP test stump. Pressure test the pipe rams and stabbing valve to 1400 kPa and 21 MPa for 10 minutes each. Pressure test the annular preventer to low of 1400 kPa and high of 7000 kPa.

11. Conduct an accumulator function test as per the attached procedure from the WSBOP manual.

12. Install a 73.0 mm landing pup with an open stabbing valve. Strip the BOP's over the landing pup and nipple up the stack. Close the pipe rams on the landing pup and pressure test the BOP connection to the wellhead for 1400 kPa and 21 MPa for 10 minutes each.

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13. BOP drills will be performed at the start of wellbore operations and then weekly if required and are to be recorded on the daily reports. BOP equipment will be function tested at least once daily and any equipment found defective will be made serviceable before operations are resumed.

14. MIRU rig assist snubbing unit.

15. It is unexpected but the pressure underneath the shallow bridge plug and cement could be as high as 7300 kPa (static gradient dated March 2, 2006). As per the OROGO safety bulletin dated April 23, 2021 (attached), a hazard analysis and risk assessment shall be performed as outlined on page two of the bulletin. This risk assessment and hazard analysis shall be forwarded to orogo@gov.nt.ca no less than an hour before drilling operations commence.

16. Pick up and RIH with 4.75" rock bit c/w bit sub and one 3.5" drill collar on 73.0 mm tubing. Tag PBTD (6.0 mKB).

17. Use fresh water as a circulating fluid.

18. Drill out the bridge plug and cement.

19. Run in to +/- 50 mKB.

20. Pull and lay down the 73.0 mm tubing and drilling BHA.

21. A summary of the milling operations must be submitted to orogo@gov.nt.ca within an hour of the completion of milling operations.

22. Rig out and release snubbing unit.

23. Pick up and RIH with drilling BHA on 73.0 mm tubing.

24. Tag the new PBTD at 1500.0 mKB..

25. Circulate 1.5 times hole volume using fresh water (hole volume is 18.6 m3) to ensure wellbore is clean.

26. Pressure test the existing BP and cement to 7000 kPa for fifteen minutes.

27. Pull and stand the 73.0 mm tubing.

28. MIRU electric line truck. Conduct walk around lease inspection and hazard assessment. Document all controls initiated to mitigate identified hazards. Hold and record safety meeting with all personnel on location.

29. The cement bond log dated March 21, 2014 shows good cement from 505 mKB to inside the surface casing (431.0 mKB)

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30. Perform cement bond log from PBTD to surface. Ensure data is transferred for evaluation communications allow. Evaluation results to be forwarded to Ken Nikiforuk and OROGO as soon as they are available.

31. Rig out electric line truck.

32. Depending on the results of the cement bond log evaluation, the decision will be made to go forward with cut and cap operations (proceed to step 50) or to perform remedial cementing operations (proceed to step 33).

33. MIRU electric line truck.

34. Correlate all perforating operations to the recently performed cement bond log. Pick up and RIH with 101.6 mm ERHSC perf guns loaded with 39 gram charges spaced at 17 spm and 60 degree phasing. Position and perforate 1.0 meters at a depth to be determined. POOH and inspect guns to ensure all shots fired.

35. Rig out electric line.

36. Pick up and RIH with 139.7 mm cement retainer on 73.0 mm tubing.

37. Set cement retainer at a depth to be determined.

38. Sting out of retainer and pressure test to 7000 kPa for fifteen minutes.

39. Sting back in to retainer and establish feed rate.

40. Based on the feed rate, the cement blend and volumes will be determined.

41. Sting out of retainer.

42. MIRU cement pumper. Rig up all equipment to SOG and OROGO requirements. RU P-tank, safety services and an air trailer. Conduct a walk around lease inspection and hazard assessment. Document all controls initiated to mitigate identified hazards.

43. Establish circulation between tubing and casing.

44. Batch mix a to be determined volume of a to be determined cement blend.

45. Circulate a to be determined volume of cement down the tubing and sting back in to retainer.

46. Squeeze a to be determined volume of cement into the formation and sting out of retainer.

47. Slowly pull and lay down two joints of the 73.0 mm tubing while rotating and ensure 15 lineal meters of cement has been circulated on top of the cement retainer.

48. Reverse circulate fresh water at least two tubing volumes or until returns are clean.

49. Pull and lay down tubing. Prior to pulling the last joint out of the hole, circulate over to fresh water.

50. Ensure the well is dead, remove BOP's and install wellhead. Ensure that bull plugs and needle valves are installed where required and the wellhead valves have been chained and locked.

51. Rig out service rig. Ensure lease is clean and free of debris.

52. MIRU NuWave Industries and cut and cap wellbore as per attached procedure. Ensure pictures are taken.

53. Install abandoned well sign as per attached OROGO specifications.

54. All facilities must be removed while ice road access exists. This can occur either before or after service rig operations have taken place but shall be done during the same winter season.

55. A complete LEL and H2S sweep shall be performed in all areas of the lease including the high line, separator building, tank, flare stack etc.

56. All vessels, tanks and high line shall be drained and purged with air prior to dismantling operations. Any recovered fluid or solids shall be trucked to an approved disposal facility

57. All surface equipment shall be dismantled and taken to the laydown yard at H-03 facility. Further processing shall occur at the H-03 laydown yard. Any reuseable equipment shall be separated. Unusable equipment shall be shredded and shipped to an approved salvage / disposal facility.

58. All piles are to be jet cutted at a depth one meter.

59. The pipeline has been previously discontinued and has already been pigged and purged.

60. The pipeline shall be jet cutted at a to be determined depth. This depth will be past the transition point where the pipeline goes horizontal.

61. A pipeline cap detailing location, size and date of capping shall be installed.

62. Ensure lease is clean and free of debris.

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Upon completion of field work the Wellsite Supervisor shall complete the following:

- Prepare a complete set of downhole and wellhead diagrams showing all serial numbers, pressure ratings, sizes, setting depths, etc.
- A complete lease clean-up shall be conducted. All garbage shall be picked up from the lease, all surplus material shall be transferred to proper storage locations and all rental equipment shall be returned.
- Ensure a sign has been installed.
- Ensure that all field-generated PO.'s MT's etc. are filled out vendor's name and address, a brief description of the work performed and a rough estimate of the final expected costs involved.

MORNING REPORTS: All morning reports are to be e-mailed to the following:

Ken Nikiforuk at kanikiforuk@icloud.com
Kurt Hewitt at kurtw.hewitt@gmail.com
Duncan MacRae at dmacrae@alvarezandmarsal.com
OROGO at orogo@gov.nt.ca

FIELD TICKETS/INVOICES:

Field tickets are to be completed in detail with the **Well Location, AFE Number, Codes** and details of the service work. **Tickets are to be signed by the on site representative. These tickets and all invoices must be made out to Strategic Oil & Gas Ltd. c/o Alvarez & Marsal Canada Inc**

Invoices are to be mailed to:

STRATEGIC OIL & GAS LTD. C/O ALVAREZ & MARSAL CANADA INC
#1110, 250 – 6th Avenue SW
Calgary, AB
T2P 3H7

ATTENTION: KEN NIKIFORUK

Prepared By: Ken Nikiforuk
Operations Consultant: _____ Date _____

Approved By: Duncan MacRae
Director, Alvarez & Marsal: _____ Date _____