



**NWT Facility
SUNCOR et al TWEED LAKE M-47
Abandonment Program**

Bottom Hole Location: 300N18602011800

Project Name:

IO #:

AFE Amount: \$

Electronic Wellfile

'M-67 Abandonment Program' can be accessed via the following link:

Rev #0

Corporate Head Office

Suncor Energy Inc.

P.O. Box 2844, 150 - 6 Avenue S.W.

Calgary, Alberta

Canada T2P 3E3

T: 403-296-8000

This program will be updated once all the venders are selected, and operational steps finalized.

I. OBJECTIVE

The objective is to install a bridge plug and swab the casing fluids out. Pump in fresh water. Turn over to Logistic for the cut and cap operation.

II. WELL DATA

Well Name: SUNCOR et al TWEED LAKE M-47

Permit Number:	1476	U.W.I:	300M4767000125450
AFE Number:		Working Interest %	100%
AFE Amount:	\$		
Spud Date:	Jan 11/85	Rig Release:	Feb 24/85
Elevations:	KB: 435.22 m	GL: 429.1 m	CF: N/A
Depths:	TD: 1420.00 mKB	PBTD: 1179.8 mKB	BGWP: m
Directional:	TVD: Vertical	Angle: n/a	KOP: n/a
Latitude:	66° 56' 47.11" N	Longitude:	125° 54' 9.42" W

III. TUBULAR & WELLHEAD DATA

- Conductor:** 2 jts – 508 mm, 139.89 kg/m, K-55, BT&C csg set @ 24.0 mKB
Cemented w/: 10.8 tonne of Arctic Set cement,
3.0 m³ good cement returns to surface
- Conductor:** 5 jts – 339.7 mm, 101.2 kg/m, K-55, BT&C csg set @ 64.0 mKB
Cemented w/: 18 tonne (12.5 m³) of Arctic Set @ 1870 kg/m³ cement,
Floats held,
2.0 m³ good cement returns to surface
- Surface Casing:** 36 jts – 244.5 mm, 59.53 kg/m, L-80, LT&C set @ **760.0** mKB
23jts – 244.5 mm, 64.74 kg/m, S0095, LT&C set @ 308.54 mKB

2 jts – 244.5 mm, 59.53 kg/m, L-80, LT&C set @ 22.72 mKB

ECP set at 48.0 mKB and DV tools at 45.0 mKB

Cemented w/: 1 stage 64 tonne “G” neat estimate cement top of 350 mKB.

2 stage 4 tonne of “G” + 2.0 CaCl₂. Held okay.

1.5 m3 of cement returns to surface

From the Bond log Run on Feb 2/85 the cement top is at 365.0 mKB, marked on log 410 mKB

Production Casing: 2 jts – 177.8 mm, 43.16 kg/m, N-80, LT&C csg set @ **1418.0 mKB**

105 jts – 177.8 mm, 43.16 kg/m, S0095, LT&C csg set @ 1408 mKB

2 jts – 177.8 mm, 43.16 kg/m, N-80, LT&C csg set @ 22.04 mKB

Cemented w/: 3.0 m³ scavenger, lead 46.0 tonne of “G” neat @ 1890 kg/m, followed by tail of 7 tonne “G” + CaCl₂, plug did not bump. Bled off. Held okay.

Wellhead:

279.4 mm x 245 mm Casing Bowl, 21 MPa, McEvoy
279.4 mm x 179.4 mm Tubing Head, 21 MPa McEvoy
179.4 mm x 65 mm, Tubing Head Adapter Flange, 21 MPa
65 mm, 35 MPa, Master Valve, Cameron
65 mm, 35 MPa, Secondary Valve, Cameron
65 mm x 52.4 mm 21 MPa Studded Flow Tee
52.4 mm, 21 MPa, Wing Valve

IV. ATTACHMENTS

- Wellbore diagram

Well History

Jan 1985 DRILLING HISTORY

This well was spud on January 11, 1985 and drilled as follows

Conductor 1

- Drilled 311 mm pilot hole to 24 m
- Pick up 610 mm hole opener
- Drill 610 mm open hole to 23 mKB with Visgel/XC Polymer mud
- Ran 2 joints 508 mm 140 kg/m K-55 BT&C conductor pipe
- Landed at 23 mKB
- Cemented in place with 10.8 tonnes Arctic Set

Conductor 2

- Drilled 445 mm conductor hole to 64 mKB with Visgel/XC Polymer mud
- Ran 5 joints 340 mm 101 kg/m K-55 BT&C casing
- Landed at 64 mKB.
- Cemented in place with 18 tonnes Arctic Set

Intermediate Hole

- Tripped for bit at 145 m, jars spearated, had to fish collars out of hole.
- Lost circulation when tripping for bit at 273 mKB.
- Rig up air drilling equipment and blow hole dry
- Drill ahead with foam from 273 mKB to 760 mKB
- Logged (DIL-GR, LDT-GR-CAL, BHSC LSS-GR) open hole to 760 mKB; casing shoe at 64 mKB
- Ran 245 mm 60&65 kg/m L-80&SOO95 LT&C casing (see casing record attached)
- Cemented with 64 tonnes class G cement (stage 1); annulus bridged off with 9.9 m3 displaced. Pressure increased to 30 MPa with no results.
- Cemented with 4 tonnes class G + 2% CaCl₂ (stage 2); stage tool at 45 mKB
- 1.5 m3 good cement returns to surface

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- Weld on casing bowl (10 3000# x 9 5/8); pressure tested weld to 21 MPa.
- RIH with 216 mm bit and tagged DV closing plug at 44.4 m.
- Drilled out DV tool plug then continued to drill out cement from 204 m to 224 m with 216 mm bit.
- Continued to drill out cement to 760 m
- POOH and prepare to bond log
- **Performed bond log and located cement top at 514 m. Good cement bond to 514 m. Logging tool unable to read bonding of cement to 45 m above DV tool.**
- Ran Gyro; indicated hole deviating slightly

Surface hole

- | | |
|--------|--|
| Day 7 | Drilled out conductor to 79 m with water based mud. |
| Day 8 | Drilled to 145 m with with mud weight of 1120 kg/m ³ . Twisted off a the jars and left part of the BHA in the hole. |
| Day 9 | Drilled to 215 m with with mud weight of 1120 kg/m ³ . Fished and recovered BHA. No loss while circulating. |
| Day 10 | Drilled to 265 m with with mud weight of 1055 kg/m ³ . |
| Day 11 | Drilled to 321 m with with mud weight of 1120 kg/m ³ . Lost circulation at 273 m. Switched over to air drilling at 273 m. Very little mud in the returns approximately 0.5 m ³ . |
| Day 12 | Drilled to 428 m with air. Making approximately 0.4 m ³ /min or 24 m ³ /hr of water. |
| Day 13 | Drilled to 494 m with air. |
| Day 14 | Drilled to 544 m with air. Making approximately 0.5 m ³ /min or 30 m ³ /hr of water. |
| Day 15 | Drilled to 620 m with air. Making approximately 1.3 m ³ /min or 78 m ³ /hr of water. |
| Day 16 | Drilled to 671 m with air. Making approximately 2 m ³ /min or 120 m ³ /hr of water. |
| Day 17 | Drilled to 758 m with air. TD section. |

Main Hole

- Displaced hole to mud (Visgel/XC Polymer mud).
- Drilled 216 mm hole from 763-795 mKB. Chlorides climbing; drilling through salt zone with salt top at 764 mKB.

- Continued to drill from 795-997 mKB; saturated mud system with 912 sks salt (350 kg/m³ mud)
- Drilled ahead with saturated salt mud system.
- Through zone of interest, salt concentration in mud ~155,000 ppm. Mud additives included salt, XC, FLR100, caustic, barite, Q broxin, D foamer, and soda ash.
- Cored 1217-1224, 1400-1409, and 34 sidewall cores
- Logged (DLL-MSFL, BHCS, CNL-LDT, NGT-AMS, SHDT, CST, WST)
- Performed 5 DSTs over Mt Clark and Mt Cap formations
- Ran 2 joints 178 mm 43 kg/m N-80 LT&C casing
- Ran 106 joints 178 mm 43 kg/m SOO95 LT&C casing
- Casing landed at 1418 mKB
- Cemented with 46 tonnes class G neat cement
- tailed in with 7 tonnes class G with 2.5% CaCl₂
- Displaced cement with drilling mud; DID NOT BUMP PLUG

The subject well was spud on January 11, 1985. The 245 mm surface casing was landed at 760 mKB and cemented in place. The 216 mm production hole was drilled to a total depth of 1418 mKB. The 178 mm production casing was run to 1418 mKB and cemented in place. **Cement bond logging indicated cement top above 414 mKB.**

Feb 2004 A service rig was moved in from Norman Wells. The wellbore was cleaned out to PBD at 1322 mKB and the well circulated over to Rimbey Platinum frac oil. The Mount Clark was perforated underbalanced from 1222.5 to 1233.5 mKB using 114 mm guns. A 178 mm retrievable packer with plug in place was wireline set at 1196 mKB. The 73 mm EUE production tubing string, complete with a clamped on 9.53 mm injection line for methanol injection was run.

A 9.5 tonne fracture stimulation was performed on the Mount Clark formation. The well was flowed back on clean-up and a 4 point flow test conducted. The final gas rate was 263 e3m³/d at 9.6 MPa. The well was suspended by setting a 'PX' plug in the on-off connector above the packer at 1195.6 mKB. The tubing pressure was bled down from 11.1 MPa to 6.2 MPa for a negative test on the plug. A 73 mm 'G' packoff was set a 40 mKB and the tubing bled to zero.

Wellsite inspections in 2010 and 2013 have recorded a tubing pressure of 10.7 MPa at surface indicating both downhole plugs are leaking.

Jun 2010 Did a lease inspection. Flew to location. Did a bubble test on vent no issues. Shut in casing pressure 0 KPa. Shut in tubing pressure 10.8 MPa. Serviced the wellhead. Pressure tested the casing to 1.4 MPa for 10 minutes, good. Rigged out.

Sept 2013 Did a lease inspection. Flew to location. Did a bubble test on vent no issues. Serviced the wellhead. Pressure tested the casing to 1.4 MPa for 10 minutes, good. Rigged out.

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- Feb 2015 Move in rig up service that was brought in from Norman Wells. Rig up service rig. Rig in wireline unit. When pulling the G pack off pulled out of the rope socket. Fish all equipment out of the hole. Retrieve G pack off. Pull out of the hole with the XN plug from the nipple at 1185 mCF. Filled tubing with 25% methanol, water, and 8% Halliburton MX794 inhibitor pumped into zone. Well is dead. Set a tubing BP on top of the XN. Set tool but did not disconnect. Had to jar to get off. Set a second BP on top of the first. Set without issue. Pressure tested the tubing to 7 MPa for 10 minutes. Good PT. Pressure tested the casing to 7 MPa for 10 minutes. Good PT. Run in the hole with a tubing punch and perforated the tubing at 1186 mCF. Circulated the well with the same inhibited solution, recovered all the frac oil on the side. Pull out of the hole with the tubing and injection line that was strapped to it with Cannon clamps. Run in the hole with a casing scraper and tagged the packer at 1196 mKB. Worked over setting area and Pull out of the hole. Run in the hole with a BP on wireline and set at 1187.8 mKB. Pressure tested to 7 MPa for 10 minutes. Good PT. Dump bail 8 m of cement on plug. Top up the casing with 120 l of diesel. Rigged out moved off.
- Aug 2019 A OROGO inspection report was done by Barlon Engineering. Did a bubble test which was negative and did a gas migration test which was negative. Serviced the wellhead.
- June 2024 A OROGO inspection report was done. Conducted a bubble test which was negative. Serviced the wellhead. Pressure tested the well to 4.0 MPa for 15 minutes.
- Aug 2024 Conducted Gas Migration Testing on the lease. Found no evidence of surface casing vent flow or active gas migration in the soils outside of the casing.

V. TUBULAR PROPERTIES

O.D. (mm)	Weight (kg/m)	Grade	Thread	I.D. (MIN) (Pin) (mm)	Drift Diameter (MIN) (mm)	Coupling O.D. (S&B) (mm)	Capacity (MAX) (m ³ /m)	Collapse (MPa)	Burst Body Connection (MPa)	Tensile (1000daN)
508.0	139.89	K-55	BT&C	485.7	481.0	533.4	0.18535	3.59	14.55	366.5
339.7	101.2	K-55	BT&C	315.3	311.4	365.1	0.07726	13.44	23.79	319.4
244.5	59.53	L-80	LT&C	224.4	218.4	269.9	0.039559	21.3	39.64	327.8
244.5	64.74	S0095	LT&C	222.4	218.4	269.9	0.038846	35.03	56.19	462.6
177.8	43.16	N-80	LT&C	157.1	153.9	194.5	0.019569	48.4	56.26	265.6
177.8	43.16	S0095	LT&C	157.1	153.9	194.5	0.019569	54.92	66.81	303.8

VI. LANDING DEPTHS

Description	Landing Depth, mKB
Conductor	24.0
Conductor	64.0
Surface Casing	760.0
Production Casing	1418.0

VII. FORMATION TOPS

Formation Top	mSS	mKB	mTVD
Saline River Salt	-327.8	763.0	
Mountain Cap	-562.8	998.0	
Top High G.R. Shale Marker	-693.3	1128.5	
Base High G.R. Shale Marker	-745.8	1181.0	
Mountain Clark	-775.8	1211.0	
Proterozoic	-798.8	1234.0	

RESERVOIR PROPERTIES

Formation: Mount Clark
Fluid Type: Gas
Interval (mKB): 1222.5 – 1233.5
Length (m): 11.0
TVD (m): 1222.5 – 1233.5
Pressure (kPa): 12.1 MPa
Temperature (°C): 11.5
Max H₂S / CO₂ (%): 0/0

Attachments

- Stream Flo servicing quote
- GChem Gas migration testing quote
- Matrix water sampling quote
- Great Slave Helicopter quote

VIII. SUNCOR REQUIREMENTS

General:

This well is part of a project which is proprietary to Suncor Energy Inc., Information is to be held strictly confidential, document not to be copied.

Well site Supervisors must ensure that the applicable Suncor Safe Work Practices are observed, including the following:

- Safety Orientation - All Onsite personnel must be oriented to site hazards and signed in on the sign-in log.
- Ground Disturbance deeper than 30 cm (including rig anchors) is not to be carried out without the direction of a Logistics representative.
- Hydrocarbon Exposure LEL monitors will be used by all personnel on any job where hydrocarbon vapors may be present.
- H2S Safe Work Practice will be observed by providing H2S detection equipment, trained personnel, and specified safety equipment when required.
- Ensure a Field Level Hazard Assessments (FLHA) to identify and document site specific hazards are completed prior to commencing work, before all critical tasks and at any change in scope during the task as per the Suncor Completions SWP.

Ensure current MSDS sheets are onsite for all controlled products including produced fluids. Ensure that workers are made aware of the Hazards and safeguards.

All unplanned events that occur that cause or could have caused loss are to be reported to the Completions Superintendent immediately. Incidents with or without loss must reports must be utilized as directed by the Completions Superintendent.

Conduct all operations in accordance with applicable IRP's, provincial acts and regulations pertaining to the OROGO.

An Assignment of Supervisor form must be completed and posted at location.

In the event of injured worker they will be transported back to Norman Wells Hospital using the helicopter.

Employees and contractors certification of First Aid, H₂S, WHMIS and TDG etc. must be verified before they are allowed access to work on site.

All contractors' competency must be verified before they are allowed access to work onsite. Frequent, task-specific, on-going competency assessments must also be conducted for the duration of a contractor's term in a specific position.

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A site walk inspection must be conducted every day in conjunction with a morning operational / safety meeting outlining all safety hazards and planned procedures for the day. This must be recorded on the daily tour report.

Any operation outlined in this program or otherwise implied by the nature of the work to be conducted that requires clarification shall be discussed with Operations.

Calgary office, Completions Analyst, Completions@Suncor.com will submit required OROGO notifications.

IX. CONTACTS

SUNCOR PRIMARY CONTACTS

Name	Title/Location	Office	Cellular
Greg Heffel	Completions Engineer	403-296-5549	403-816-2422
Jonathan Koteles	Completions Supt.	403-296-8916	403-510-7217

REGULATORY, HEALTH, & SAFETY AGENCIES

Name	Emergency #	Emergency #	
SEC Calgary	403-296-3000		
Air Ambulance Service	1-800-661-3822		
RCMP – Fort McMurray	780-799-8888 (24hr)		
Regional Hospital			
W.C.B.	1-866-922-9221		
FOREST FIRE NWT	1-877-698-3473 (1-877-NWTFIRE)		
GNWT (Office of the Regulator of Oil and Gas Operations)	1-867-920-8130 (24hr) (Spill Response) 1-867-445-8551 (Incident Response) 1-867-767-9097	310-3473 Emergency Reporting Line	
Sathu Land and Water Board (SLWB)	1-867-598-2413		
Mackenzie Valley Land and Water Board (MVLWB)	1-867-669-0506		
NWT – Environment and Natural Resources Sahtu Regional Office	1-867-587-2422 (General) 1-867-587-2422 (Wildfire)	403-297-8311 (24hr) Calgary Office	
NWT – Environment and Natural Resources Decho Regional Office	1-867-695-7450 (General) 1-867-695-7433 (Wildfire)		

SERVICE COMPANY CONTACTS - TBC

Service Type	Company	Contact Name	Office Number	Cellular	# People

X. PROCEDURE

Field conditions and engineering decisions may change throughout the course of the job. However, do not change or deviate from this program without following the Wells Management of Change Procedure.

1. Review the previous WellView report for this well. Flag any potential issues and discuss with the Calgary Superintendent.
2. Ensure to have OROGO ACW-2021-SUN-M-47-WID1476 (Alter Well Approval and OROGO OA-2021-003-SUN (Operations Authorization) readily available onsite. These documents are OROGO approvals to perform the abandonment work. Will be supplied in teams work page.
3. Inspect the wellhead valves for signs of damage and report Calgary if there is.
4. Hold a safety orientation with a procedural meeting and conduct a pre-job hazard assessment with all onsite personnel and document in the Daily Report.
5. Monitor LEL and H₂S with personal monitors throughout the program.
6. Perform a 10-minute Surface Casing Vent Flow bubble test as per the outlined procedures in OROGO "Well Suspension and Abandonment Guidelines and Interpretation Notes" Section 4A. Notify the Operations Supervisor of the results and document the results in the Day #1 daily report.
7. Measure and record casing pressure. Notify Calgary operations if pressure exists.
8. Fly in equipment and personal using helicopters.
9. Pressure test the casing to 7 MPa for 15 minutes.
10. Move in rig up portable wireline skid.
11. Stand mast or hang sheave spool and make equipment and tools ready for wireline operations.
12. Make up and run in the hole with a permanent bridge plug and set at 615.0 mKB. After plug is set pull up 50 m and then run back down and tag to ensure it set. Pressure test the casing to 7 MPa for 15 minutes.

13. Rig in swabbing equipment. Swabbing the wellbore fluid back into surface tanks. Fluid will be transferred from surface tanks to fly bladders to be moved back to storage.
14. Once the wells are swabbed dry then fresh water can be flown in and pumped into the wellbore until it is full. Then swab the well down 3 m to ensure it is winterized.
15. Rig out and release all services. Move all equipment off location.
16. Fill out the attached "Surface Abandonment Handover Form" and turn the well over to logistics for cut and cap. Note the date of the gas migration testing in the document. Send form to Greg & Jon.
17. Rig out and release all services. Move all equipment off location.
18. Finalize Documentation
 - Ensure tubing tallies are entered and correct in Wellview.
 - Ensure WellView schematic is accurate, as built, drawing.
 - Take a picture of final wellhead and add as WellView attachment **and take lease pictures.**
 - Attach electronic copies of well related information to WellView file, if applicable.
 - **Ensure the surface casing vent flow sheet is filled out in wellview.**
 - Well Site Supervisor emails Project Engineer of the end date of the operation in Wellview and files end of well (EOW) documentation in the Completion Microsoft Teams EOW WSS Entry
 - Completion Teams Folder>General> EOW> End of Well WSS Entry
 - License # _ Well Name_ EOW
 - Issue Work Orders to vendors - following completion of the requested work, field operations will confirm that the field ticket is complete and accurate in writing, by signing the field ticket and providing a separate work order.

END OF PROGRAM

XI. PROGRAM SIGN OFF

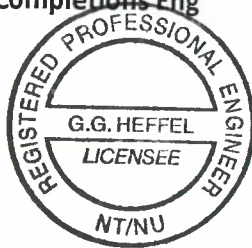
PREPARED BY:



Greg Heffel
Engineer, Completions Eng

Aug 20/24

Date



APPROVED BY:

Tier 1:



Jonathan Koteles
Superintendent, Completions

August 23, 2024



Date

APPROVED BY:

Tier 1:

Stephen Weatherhead
Director Completions Engineering

Date

PERMIT TO PRACTICE	
SUNCOR ENERGY INC.	
Signature	
Date	
PERMIT NUMBER: P 1712	
NT/NU Association of Professional Engineers and Geoscientists	



Well Name: Suncor et al Tweed Lake M-47

Date: Feb 15/15

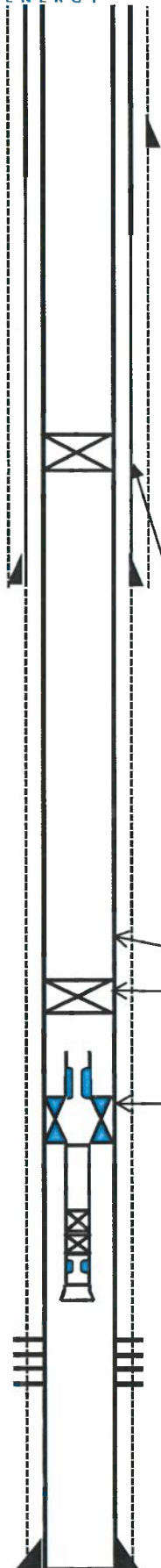
UWI: 300M476700125450

WA / Licence # 1476

Surface Location: M-47

Latitude: 66° 56' 47.11" N

Longitude: 125° 54' 09.42" W



Elevations		
KB Elevation:	435.22 m	KB-THF 5.52 m
GL Elevation:	429.10 m	KB-CF: 6.12 m
		KB-GL: 6.12 m
		TD 1418.0 mKB
		PBTD 1179.8 mKB

Wellhead:		Size and Rating								
Manufacturer	mm	x	mm	MPa	x	mm	MPa	x	mm	MPa
McEvoy / Crown	245	x	279	21	x	179	21	x	65	35

Casing	Hole mm	Joints #	OD mm	Wt. kg/m	Grade	Thread	Top	Bottom
Conductor:	610	2	508	140	K-55	BT&C	surface	23.0 mKB
Conductor:	445	5	340	101	K-55	BT&C	surface	64.0 mKB
Surface:	311	61	245	60/65	L-80 / SOO95	LT&C	surface	760.0 mKB
Production:	216	109	178	43	N-80 / SOO95	LT&C	surface	1418.0 mKB

Wellbore Fluid: 25/75 methanol water w/ 0.8% Halliburton MX794 inhibitor

Perforations / Open Hole		Top (mKB)	Bottom (mKB)	BHP (kPa)	BHT (°C)	H ₂ S (%)	CO ₂ (%)
Date	Formation						
Mar 3/04	Mount Clark (suspended w/ BP & cement)	1222.5	1233.5	12,500	11.5	0.00	0.00
Perforated with 114 mm ERHSC guns loaded with 38.6 gm Powerjet charges @ 17 spm & 60° phasing							

Bottomhole Equipment Description (from top down) depth in mKB				
Item	Jts	Description	Length	Top
8		Bridge plug		615 mKB
1		179 mm x 73 mm EUE Crown 'CTC-1A-EN' tubing hanger with 9.53 mm control line (plugged) and 63.5 mm BPV prep		
2		8 lineal meter cement cap	8.0	1179.8
3		178 mm 69 MPa permanent bridge plug		1187.8
4		Halliburton 'HD' on/off connector mandrel w/ 58.75 mm 'X' profile		
5		178 mm x 73 mm EUE Halliburton 'Versaset' retrievable packer with 'HNBR' elements	1.90	1196.00
6		3.0 m x 73 mm 9.7 kg/m L-80 EUE pup joint c/w two Owen 69 MPa premium permanent bridge plugs	3.09	
7		73 mm EUE x 58.75 mm Halliburton 'XN' nipple w/ 56.01 mm no-go with 58 mm no-go dart for setting bridge plug	0.39	1200.99
8		98.55 mm OD x 73 mm EUE wireline re-entry guide	0.15	
		Bottom of re-entry guide landed at		1201.53

Remarks Wellbore topped with 120 litres diesel for freeze protection.

Well Status Suspended gas well. **Prepared by** Bob Barvir



Surface Abandonment of Cased Well - Handover Document

**** For Corehole Abandonment (OSE): see Surface Abandonment OSE Corehole Form**

(Completions) Downhole Abandonment Date: _____

(Logistics) Surface Abandonment Date: _____

Wellsite (Name & UWI): _____

MSL # _____

Completions Supervisor: _____

Logistics Supervisor: _____

- | | | Y | N | N/A |
|----|---|--------------------------|--------------------------|--------------------------|
| 1 | Pressure test passed? Read & record shut-in casing pressure _____ kPa / 15 min's | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Cement depth consistent with D20? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Other D20 consideration explain: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | Well head removed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | Solar Panels and other hardware removed / deactivated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | Safe Work Permit from Operations received by Logistics? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | On-site safety meeting held? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | Ground Disturbance Authorization received? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | Hot work permits received? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | Personal 4-head gas monitoring in place? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11 | LEL tested at wellhead?
<i>Note: If reading exceeds 0%, stop work & contact Calgary.</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12 | Surface casing vent flow test was performed.
<i>Note: If flow detected, stop work & contact Calgary.</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13 | Other Hazardous material used during down hole abandonment
<i>Explain</i> _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14 | Mitigative measures taken to deal with Hazardous material:
<i>Explain</i> _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15 | Depth to cement: Cement from screen top to surface GL. _____ <i>(Required: Depth or Unknown)</i>
If Unknown - why? (Frozen, etc.) _____
<i>Note: If >8m Stop and review with Calgary office</i>
Fill to 3 meters below ground level with Cement if greater than 8m | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16 | Depth to water: 211.04 mASL _____ <i>(Required: Depth or Unknown)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17 | Nu Wave Technology used? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18 | Intermediate/production casing(s) capped with steel plate? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | Surface casing capped with steel plate? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20 | Welding & venting procedures documented? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21 | Casings cut off and capped greater than 1m* below final contour elevation?
<i>*Note: 2m below final contour elevation if located on peat lands or if within 15km of urban development (50 houses or see survey plan)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22 | Job documented with pictures? See 2nd tab | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

23 Additional Comments Completions :

Type of Fluid left above Plug: _____

24 Additional Comments Logistics :

25 Completions Supervisor: Fill in Red Highlighted and forward to Completions Superintendent and Logistics Field Representative.

26 Logistics Supervisor: Save Document as PDF including **UWI in the document name** and within 48 hours of work being completed.

Forward to: LOGISTIC@suncor.com, Logistics Superintendent, gbis@telus.net, sun.jodymcconnell@ddmail.ca

NOTE: cc Tanya Richens (trichens@suncor.com if within Firebag or Mackay River EPEA Boundary)

Greg Heffel

To: Paul Carpentier
Subject: RE: OROGO

From: Paul Carpentier <pcarpentier@suncor.com>
Sent: January 16, 2025 1:03 PM
To: Greg Heffel <gheffel@suncor.com>
Subject: RE: OROGO

As per OROGO's **Well Suspension and Abandonment Guidelines and Interpretation Notes, Section 6E, Surface Abandonment Requirements**, the following shall be completed by Suncor:

1. Cup & Cap : Removal of the Casing String at 1M below the natural ground level using water-jet cutting tool to minimize ground disturbance
2. Capped at surface using approved friction fit bowstring cap, similar to Tathlina N-18 well
3. Acquisition of the coordinated of well center (NAD83, DMS (2 decimal places) or Decimal Degrees (4 decimal places))
4. Marked with a durable post and sign as per signage and post requirements (lettering, angle, color)

Paul Carpentier RPF
Wells - Logistics Superintendent
E&P & In Situ
587-646-9482
pcarpentier@suncor.com


SECW-15-006
150 – 6 Ave S.W, Calgary, Alberta

