



**NWT Facility
SUNCOR et al BELE 0-35
Abandonment Program**

Bottom Hole Location: 3000356640126150

[Click here to enter text.](#)

**Project Name:
IO #:
AFE Amount: \$**

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

I. OBJECTIVE

The objective is to abandon the well. A bond log will be run to find the cement top on the production casing. From that information the production casing will be cut and pulled. Another bond log will be run on the surface casing to find the free pipe. Casing will be perforated to cover off the water zones. A cement plug or wells will be placed to squeeze of the water zones. The well will be turned over to logistics to be cut and capped.

II. WELL DATA

Well Name: SUNCOR et al BELE 0-35

Permit Number:	N85A469	U.W.I:	3000356640126150
AFE Number:		Working Interest %	100%
AFE Amount:	\$		
Spud Date:	Feb 14/86	Rig Release:	Apr 2/86
Elevations:	KB: 397.76 m	GL: 393.26 m	CF: N/A
Depths:	TD: 1384.00 mKB	PBTD: ?? mKB	BGWP: m
Directional:	TVD: Vertical	Angle: n/a	KOP: n/a
Latitude:	66° 34' 58.1357" N	Longitude:	126° 21' 32.1083" W

III. TUBULAR & WELLHEAD DATA

Conductor: 5 jts – 339.7 mm, 101.2 kg/m, K-55, BT&C csg set @ **63.0** mKB

Cemented w/pumped 1.6 m³ of water followed by 8.3 m³ (10.8 tonne) of G + 3.0% CaCl₂ @ 1890 kg/m³ cement, float not holding.

?? m³ good cement returns to surface

Surface Casing: 3 jts – 244.5 mm, 59.53 kg/m, K-55, LT&C set @ **777.0** mKB
 19 jts – 244.5 mm, 59.53 kg/m, T-95, LT&C set @ 739.03 mKB
 42 jts – 244.5 mm, 59.53 kg/m, K-55, LT&C set @ 515.66 mKB

ECP & DV toolset at 37.97 mKB

Cemented w/ 1 stage 10 tonne “G” + 2.0% CaCl₂ @ 1895 kg/m³
 2 stage 4.4 tonne of “G” + 2.0% CaCl₂ @ 1895 kg/m³.

2.0 m³ good cement returns to surface

Production Casing: 117 jts – 177.8 mm, 43.16 kg/m, MN-80, LT&C csg set @ **1384.33 mKB**

Cemented w/ 4.8 m³ water, lead 30.0 tonne (39.6 m³) of “G” + 0.5% D65 @ 1890 kg/m, bumped plug with 18 MPa. Bleed off float held.

Cement top calculated to be at 500 mKB. Bond log that was run on Feb 6/86 indicates cement top at approximately 676.0 mKB

0.0 m3 of cement returns to surface

Wellhead:

279.4 mm x 245 mm Casing Bowl, 21 MPa, McEvoy
279.4 mm x 179.4 mm Tubing Head, 21 MPa Cameron
179.4 mm x 65.1 mm, Tubing Head Adapter Flange, 21 MPa
65.1 mm, 35 MPa, Master Valve, Cameron
65.1 mm x 52.4 mm 21 MPa Flow Tee
52.4 mm, 21 MPa, Wing Valve

IV. ATTACHMENTS

- Wellbore diagram

Well History

Feb 1986 DRILLING HISTORY

This well was spud on February 14, 1986 and drilled as follows

Conductor 1

- Drilled 445 mm conductor hole to 63 mKB with
- Ran 5 joints 340 mm 101 kg/m K-55 BT&C casing
- Landed at 63.0 mKB.
- Cemented in place with 10.8 tonnes G w/ 3% CaCl₂, float did not hole.

Surface Hole

- Tagged cement at 52.0 m drilled out.
- Switched to air drilling at 163.0 m.
- No water inflow encountered at 333.0 m
- 362 m string weight dropped to 12,000 daN. Fished BHA out. Ran in with new DC.
- Finish drilling to 777.00
- Logged (DIL-GR, CHL, LDT- MGR-Dual Caliper, BHCS, HDT-Cal) open hole to 777 mKB; casing shoe at 63 mKB
- Ran 245 mm 60 kg/m K-55 LT&C casing (see casing record attached)
- Cemented with 10 tonnes class G cement (stage 1);
- Cemented with 4.4 tonnes class G + 2% CaCl₂ (stage 2); stage tool at 45 mKB
- 2.0 m³ good cement returns to surface
- 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 37.97 m.
- Drilled out DV tool plug then continued to drill out float with 216 mm bit.

Surface Section

Day 9 started to drill surface hole, drilled to 85 m with water based mud

Day 10 Drilled to 163 m with water/air. Switched to air at 100 m. No fluid inflow, lost circulation problems apparent.

Day 11	Drilled to 270 m with air. Twisted off at collar.
Day 12	Drilled to 333 m with air. Fished BHA. Drilling ahead and noted mist in returns.
Day 13	Drilled to 362 m with air. Twisted off again. Fished BHA again. Waiting on DC inspections.
Day 14	Drilled to 362 m with air. Finished DC and BHA inspection.
Day 15	Drilled to 401 m with air. Changed direction of Blue line to off lease making 12 m ³ /hr of fresh water with 125 mg/L at 363 m.
Day 16	Drilled to 468 m with air.
Day 17	Drilled to 585 m with air.
Day 18	Drilled to 590 m with air.
Day 19	Drilled to 639 m with air.
Day 20	Drilled to 692 m with air.
Day 21	Drilled to 718 m with air.
Day 22	Drilled to 768 m with air.
Day 23	Drilled to 777 m with air.

Main Hole

- Displaced hole to mud.
- Cored 1330.5-1340.6, 1340.6 – 1353.0, and 34 sidewall cores
- Logged (DLL-MSFL, CNL-LDT-NGT-AMS, BHCS, HDT, MEL, SNL-LDT, WST)
- Performed DSTs over Mt Clark and Mt Cap formations
- Ran 117 joints 178 mm 43.16 kg/m MN-80 LT&C casing
- Casing landed at 1384.33 mKB
- Cemented with 30 tonnes class G with 0.5 % D65
- Displaced cement with drilling mud; Bump Plug w/ 18 MPa.

Sept 2009	Did a lease inspection. Flew to location. Did a bubble test on vent no issues. Serviced the wellhead. Pressure tested the casing to 1.0 MPa for 10 minutes, good. Filled the casing up with 200 l of Nalco R-7390 corrosion inhibitor. Rigged out.
Sept 2013	Did a lease inspection. Flew to location. Did a bubble test on vent no issues. Serviced the wellhead. Rigged out.

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.

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)
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	K-55	LT&C	224.4	218.4	269.9	0.039559	17.72	27.23	249.5
244.5	59.53	T-95	LT&C	224.4	218.4	269.9	0.039559	22.96	47.02	326.8
177.8	43.16	L-80	LT&C	157.1	153.9	194.5	0.019569	48.4	56.26	265.6

VI. LANDING DEPTHS

Description	Landing Depth, mKB
Conductor	63.0
Surface Casing	777.0
Production Casing	1384.33

VII. FORMATION TOPS

Formation Top	mSS	mKB	mTVD
Franklin Mountain	393	6.0	
Thrust / Bear Rock	353	46	
Franklin Mountain	277.76	120.0	
Saline River Salt	-364.74	762.5	
Saline River Salt Member	-402.99	800.75	
Shale Marker	-414.24	812.0	
Lower Salt	-419.24	817.0	
Mount Cap	-722.49	1120.25	
Mount Clark	-945.94	1343.7	
Proterozoic	-964.74	1362.5	

RESERVOIR PROPERTIES

Formation:**Fluid Type:****Interval (mKB):****Length (m):****TVD (m):****Pressure (kPa):****Temperature (°C):****Max H₂S / CO₂ (%):**

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.
- All personnel performing work must have a valid Completions Work Permit prior to commencing work.
- 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.
- Directive 33 Well Servicing and Completions Operations—Requirement Regarding the Potential for Explosive Mixtures and Ignition in Wells – have documented practices available at the well site for the safe management of the potential for explosive mixtures and ignition in wells and associated surface equipment. A Fire and Explosion Hazard Management Plan is to be posted at the work site.

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.

All wastes must be manifested and tracked when leaving the facility, to a non-Suncor owned disposal site, as per AER Directive 58. A fully completed AER Alberta Environment Waste Manifest is to be submitted with the final report for all Dangerous Oilfield Wastes (DOWs).

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

Ensure a copy of the Suncor Corporate ERP is available on site. Complete and post the Suncor Completions Site Specific ERP.

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

An injured worker transportation form must be posted on location. If the work site is greater than 40 minutes from an approved medical facility an alternate form of injured worker transportation with qualified emergency medical personnel must be present on location. Note: Suncor medic clinics qualify as an approved medical facility.

All 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.

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.

Road use and pipeline crossing agreements and Temporary Diversion Licenses, when required, must be in place prior to commencing any operations.

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 AER DDS notifications.

IX. CONTACTS**SUNCOR PRIMARY CONTACTS**

Name	Title/Location	Office	Cellular
Matt Crockett	Completions Engineer	403-296-5439	587-284-1549
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) 1-867-767-9067	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

Service Type	Company	Contact Name	Office Number	Cellular

X. PROCEDURE

This program is to be used as a guide only. Field conditions and engineering decisions may change throughout the course of the job. However, do not change or deviate from this procedure without approval from the responsible Completions Superintendent.

1. Review the previous WellView report for this well. Flag any potential issues and discuss with the Calgary Superintendent.
2. Inspect the wellhead valves for sign of damage and discuss with the Permit Issuer before signing off on the permit. Obtain work permits (e.g. Hot Work Permit) and approvals to begin well work.
3. Follow all the current Covid-19 cleaning, physical distancing, mask, and FLHA protocols. 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. Scout the location for construction requirements and confirm wellhead specifications.
4. If applicable ensure the Well Abandonment/Flaring notifications have been submitted at least 24 hours prior to the respective operations to the Calgary office, c/o Completions Analyst – completions@Suncor.com
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 Well Suspension and Abandonment Guidelines and Interpretation Notes Section 4B. Notify the Operations Supervisor of the results and document the results in the Day #1 daily report. In the event of a positive gas flow, see Section 4B “Testing For SCVF” of OROGO Well Suspension and Abandonment Guidelines and Interpretations Notes.
7. Measure and record casing pressure. Notify Calgary operations if pressure exists.
8. Rig in the Precision service rig and equipment to OROGO, O.H. & S., and Suncor specifications. Stump test the annular BOP, double gate pipe rams, manifold, and lines to 1400 kPa low and 7 MPa high for 10 minutes each.
9. Check pressures on wellhead. Kill the well with fresh water if required.
10. Remove the wellhead top section. Install and function test BOP’s. Pressure test the ring groove connection. Perform all pressure and function tests to OROGO and Suncor specifications.

11. Run in with landing joint with a pressure tested safety valve (7 MPa) and screw into tubing hanger. Disengage the lag screws and pull out of the hole with the pup joint and tubing hanger. Laydown the hanger and pup joint.
12. Fill casing and pressure test the casing to 7 MPa for 15 minutes.
13. Pick up, pin drift, and run in the hole with the following tubing configuration:
 - 1 – 152.0 mm EG3G retip tricone bit from J&L
 - 1 - 153.9 mm casing scraper
 - 1 - 88.9 mm REG to 88.9 mm EUE crossover
 - X – 88.9 mm, 13.84 kg/m, J-55, EUE tubing to surface
14. Run in the hole and tag plug back at ~1375.0 mKB. Work the scraper over the plug setting interval from 700 mKB to 650 mKB. Pull out of the hole with the tubing and lay down 500 mKB.
15. Move in rig up Reliance wireline unit. Run in the hole with a 153.9 mm gauge ring. Run in the hole with a RBL/GR/CCL and log from PB to surface. Correlate to the **Weatherford Photo Density Dual Spaced Neutron** log. Send the results to Greg gheffel@suncor.com and Jonathan Koteles jkoteles@suncor.com. A 7 MPa pressure pass may be required depending on cement quality. Send log to Becky Harish (bharish@suncor.com) to fill out DDS submission.
 - Pressure test lubricator and wellhead connections to 1.4 MPa (low) and 7.0 MPa (high) using water/methanol prior to every run or nitrogen.
16. Pressure test the casing to 7 MPa if a 7 MPa pressure pass was not performed during the bond log.
17. Make up and run in the hole with a Weatherford 177.8 mm permanent bridge plug and running tools. Correlate to the CCL log just run. Log the bridge plug onto depth and land the top of the plug at 685.0 mKB or approximately 10 meters below the cement top. Come off the plug and pull out of the hole.
18. Pressure test the bridge plug to 7 MPa for 10 minutes. Rig out wireline and pressure truck.
19. Move in rig up Weatherford. Make up and run in the hole to cut the casing. (Need to add in all the tools and running depth.) Assume the cut will be at 670 mKB.

20. Pull cutting tools out of the hole.
21. Rig in return lines from to production annuls valve to the rig tank. Pump fluid down the casing through the casing cut to circulate out the drilling mud.
22. Pull the casing. (Need to add in all the tools.)
23. Move in rig up Reliance wireline unit. Run in the hole with a 218.4 mm gauge ring. Run in the hole with a RBL/GR/CCL and log from PB to surface. Correlate to the **Weatherford Photo Density Dual Spaced Neutron** log. Send the results to Greg gheffel@suncor.com and Jonathan Koteles jkoteles@suncor.com. A 7 MPa pressure pass may be required depending on cement quality. Send log to Becky Harish (bharish@suncor.com) to fill out DDS submission.
 - Pressure test lubricator and wellhead connections to 1.4 MPa (low) and 7.0 MPa (high) using water/methanol prior to every run or nitrogen.

Interval 515 to 616 mKB

24. Move in rig up Lee Energy. Make up and run in the hole with the following assembly. Use the gator tool to cut each free joint of casing. The bottom most cut will be determine from the bond logging results.
25. Run in the hole with 88.9 mm, 13.84 kg/m, J-55 EUE tubing open end and land tubing xx mKB.
26. Rig up Sanjel cement pumper Suncor, AER, and OH&S regulations. Prepare to cement the well with ?? tonne (m³) of "G" + 0.5% CFR-2 + 0.3% CFL-3 + 0.5% CaCl₂ + 0.15% CDF-6P as per the attached program PRG2003855 Rev 0. Assume job from 625 to 400 mKB
27. Confirm that there is zero pressure on the casing and record in Wellview.
28. Connect the cementing unit treating line to the tubing and pressure test the treating line and the tubing valve to 14 MPa for 10 minutes with fresh water and methanol.
29. With the tubing landed at 2.0 m from plug depth, circulate 2.0m³ ±20°C fresh water.
30. Continuously mix and displace the cement plug.

NOTE: The approximate volume required is m³. Open hole volume is m³ with 30% excess.

NOTE: At 200 L/min it will take approximately 100 minutes to circulate the cement in. Well may go on vacuum. Allow the cement plug to find its balance.

NOTE: Have Sanjel provide 2 cement samples at surface to monitor on location. Ensure they are kept in the heated environment and monitor that the samples gel and set up in a reasonable time.

31. Once the plug has been placed for the full length of the plug weight, which should bring the plug top to 400 mKB. Pull the tubing up to 380 mKB and wash out the tubing with 1.5x tubing volume $\pm 20^{\circ}\text{C}$ fresh water. If unable to gain circulation during cementing operations do not attempt to back wash, continue with pulling and standing tubing.

32. Next day Run in the hole and tag for the cement top. Report results to Calgary.

Interval 240 to 380

33. Perforate the next intervals.

34. Rig up Sanjel cement pumper Suncor, AER, and OH&S regulations. Prepare to cement the well with ?? tonne (m^3) of "G" + 0.5% CFR-2 + 0.3% CFL-3 + 0.5% CaCl_2 + 0.15% CDF-6P as per the attached program PRG2003855 Rev 0. Assume the job is from 400 to 200 mKB.

35. Confirm that there is zero pressure on the casing and record in Wellview.

36. Connect the cementing unit treating line to the tubing and pressure test the treating line and the tubing valve to 14 MPa for 10 minutes with fresh water and methanol.

37. With the tubing landed at 2.0 m from top of the first plug, circulate $2.0\text{m}^3 \pm 20^{\circ}\text{C}$ fresh water.

38. Continuously mix and displace the thermal cement plug.

NOTE: The approximate volume required is m^3 . Open hole volume is m^3 with 30% excess.

NOTE: At 200 L/min it will take approximately 77 minutes to circulate the cement in. Well may go on vacuum. Allow the cement plug to find its balance.

NOTE: Have Sanjel provide 2 cement samples at surface to monitor on location. Ensure they are kept in the heated environment and monitor that the samples gel and set up in a reasonable time.

39. Once the plug has been placed for the full length of the plug weight, which should bring the plug top to 200 mKB, rig out cement equipment. Pull the tubing up to 180 mKB and wash out the tubing with 1.5x tubing volume $\pm 20^{\circ}\text{C}$ fresh water. If unable to gain circulation do not attempt to back wash just proceed with pulling tubing.
40. Next day run in the hole and tag for the cement top. Report results to Calgary. Pull out of the hole.

Interval 117 to 193

41. Perforate the next intervals
 42. Rig up Sanjel cement pumper Suncor, AER, and OH&S regulations. Prepare to cement the well with tonne (m^3) of "G" + 0.5% CFR-2 + 0.3% CFL-3 + 0.5% CaCl_2 + 0.15% CDF-6P as per the attached program PRG2003855 Rev 0. Assume job from 200 to 30 mKB
 43. Confirm that there is zero pressure on the casing and record in Wellview.
 44. Connect the cementing unit treating line to the tubing and pressure test the treating line and the coil to 14 MPa for 10 minutes with fresh water and methanol.
 45. With the tubing landed at 2.0 m from plug depth, circulate $2.0\text{m}^3 \pm 20^{\circ}\text{C}$ fresh water.
 46. Continuously mix and displace the cement plug.
- NOTE:** The approximate volume required is m^3 . Open hole volume is m^3 with 30% excess.
- NOTE:** At 200 L/min it will take approximately 66 minutes to circulate the cement in. Well may go on vacuum. Allow the cement plug to find its balance.
- NOTE:** Have Sanjel provide 2 cement samples at surface to monitor on location. Ensure they are kept in the heated environment and monitor that the samples gel and set up in a reasonable time.
47. Once the plug has been placed for the full length of the plug weight, which should bring the plug top to 30 mKB. Pull the tubing up to 25 mKB and wash out the tubing with 1.5x tubing volume $\pm 20^{\circ}\text{C}$ fresh water. If unable to gain circulation during cementing operations do not attempt to back wash, continue with pulling and standing tubing.
 48. Next day Run in the hole and tag for the cement top. If the cement is above the top perforation by 10 m then we will pressure to 7 MPa for 15 minutes. Report results to Calgary.

NOTE: Plan B

If the casing was not successfully pulled due to some issue that was not anticipated the perforation will be made through both the production and surface casing in a similar depth as planned previously.

Interval 515 to 616 mKB

Interval 240 to 380

Interval 117 to 193

Perforation placement need to be determined within each of the interval but will be the same as for the removal of the casing string. Cementing operations will be similar, but chemical loading might need to be adjusted.

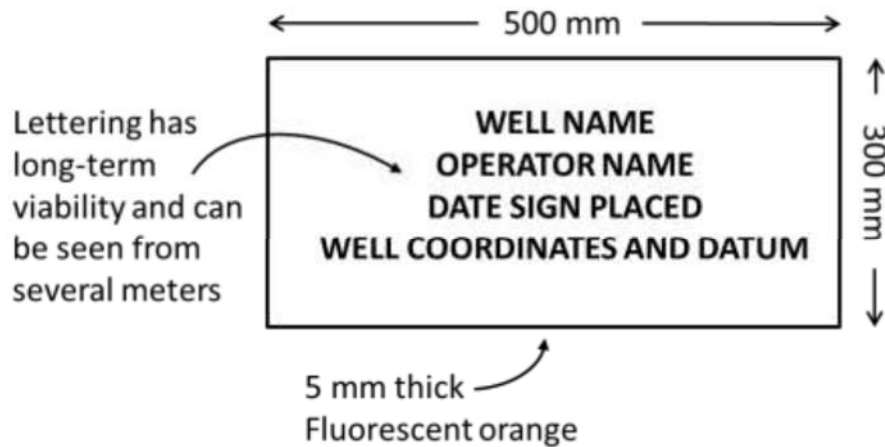
49. Fill out the attached "Surface Abandonment Handover Form" and turn the well over to logistics for cut and cap. Note the date of the gas migration test in the document. Send form to Matt mcrockett@suncor.com & Jonathan jkoteles@suncor.com.
50. Winterize the well and wellhead to ensure no freezing issues will occur. Rig out and release all services. Leave wellhead in D13 compliance. Rig out and release all services
Move all equipment off location.

Surface Abandonment Requirements

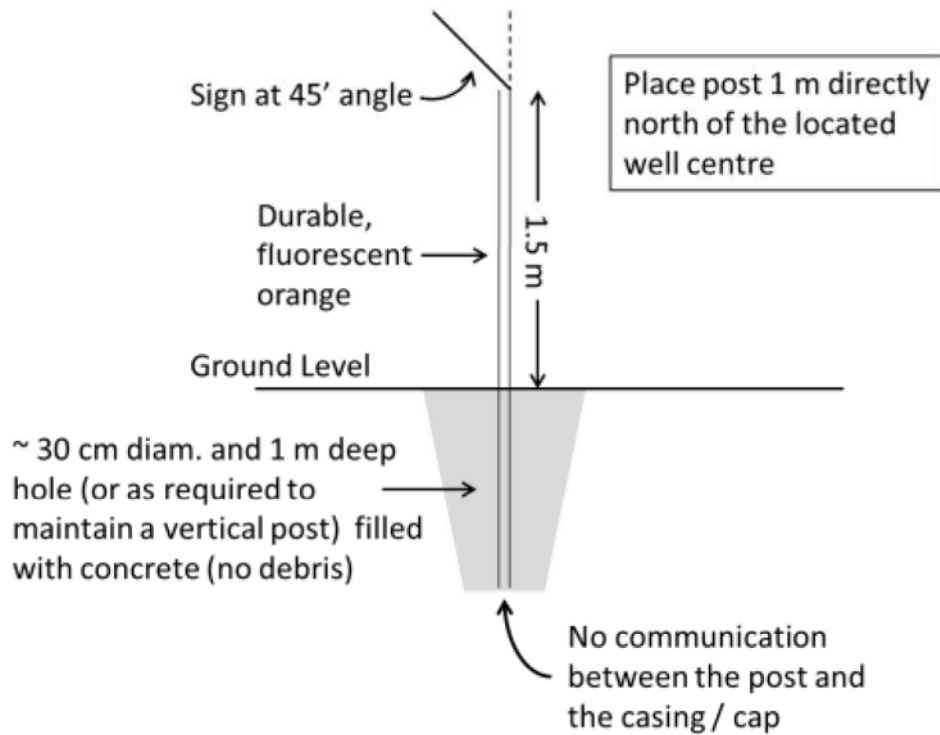
51. To comply with OROGO Abandonment Section 6E Surface Abandonment Guidelines. Immediately upon Completion of the downhole abandonment work, Suncor Logistics team will receive the "Surface Abandonment Handover Form".
52. Suncor Logistics will move onto location and perform the below procedure:
 - Remove the Wellhead
 - Cut off casing strings minimum 1 meter below natural ground level
 - Surface, intermediate and production casing strings must be capped at surface with a vented capping system: a steel plate that is fastened and installed in a manner as to prevent any potential for pressure to build up within the casings from the shallowest zonal abandonment to the surface, while restricting access to the casing strings at surface.
 - Field verified coordinates for the well center must be provide to OROGO as part of the Well Operations report. Geodetic datum must be specified NAD83 recommended. Coordinates must be to 4 decimal places or in degrees, minutes and seconds to 2 decimal places.

- A field sketch of the area must also be submitted as part of the Well Operations Report.
- After surface abandonment is completed, the well must be marked with a durable post and sign as shown below.

Sign Requirements



Post Requirements



- Ensure all debris associated with entire well operation is removed.
- Take pictures of lease and cut and capped well with signage.

- Submit all information and pictures to mcrockett@suncor.com and applicable Logistics team lead.

53. 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.
- Attach electronic copies of well related information to WellView file, if applicable.
- 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:

Matt Crockett
Sr. Engineer, Completions

Date

APPROVED BY:

Tier 1:

Jonathan Koteles
Superintendent, Completions

Date

APPROVED BY:

Tier 1:

Dean Tymko
Director, Completions

Date



Oil and Gas

Well Name SUNCOR et al BELE O-35

Date Apr 10/20

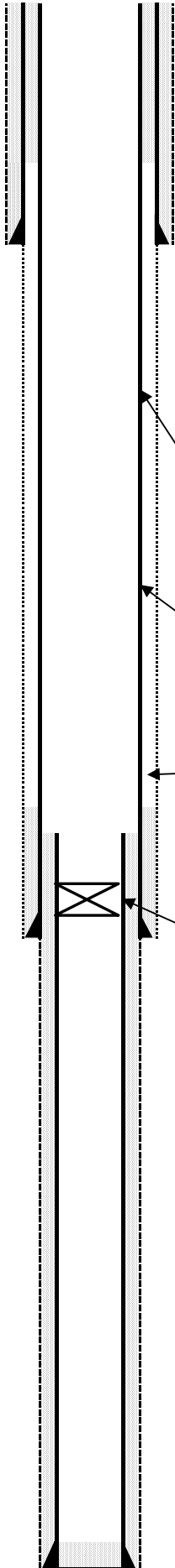
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WA / Licence # N85A469

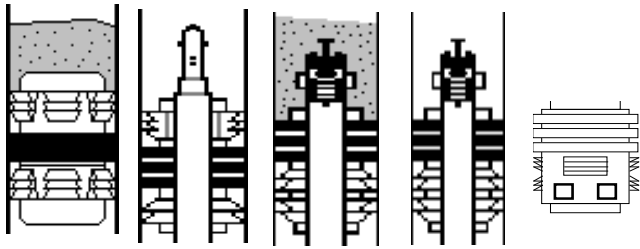
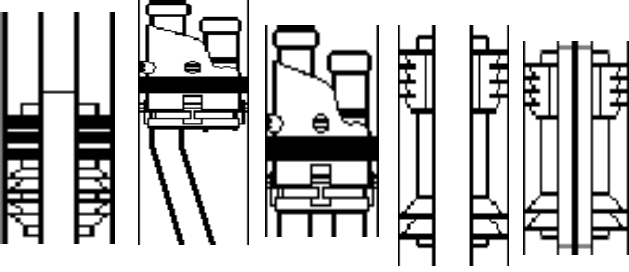
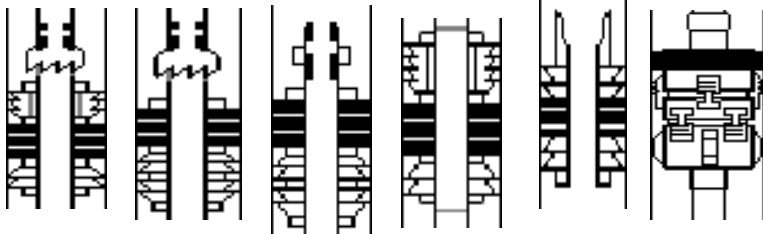
Surface Location

Latitude 36° 34' 58.1357"N

Longitude 26° 21' 32.1083"W



Elevations										
KB Elevation	397.76 m	KB-THF	m	TD	1384.0 mKB					
GL Elevation	393.26 m	KB-CF	m	PBTD	mKB					
		KB-GL	4.50 m							
Wellhead: Size and Rating										
Manufacturer	mm	x	mm	MPa	x	mm	MPa	x	mm	MPa
Cameron	245	x	279	21	x	179	21	x	65	21
Casing	Hole	Jts	OD	Wt.	Grade	Thread	Top	Bottom		
	mm	#	mm	kg/m						
Conductor	444	5	339.7	101.2	K-55	BT&C	surface	63.0	mKB	
Surface	311	42	244.5	59.5	K-55	LT&C	surface	515.7	mKB	
	311	19	244.5	59.5	T-95	LT&C	515.66	739.0	mKB	
	311	62	244.5	59.5	K-55	LT&C	739.03	777.0	mKB	
Production	216	117	177.8	43.2	MN-80	LT&C	surface	1384.3	mKB	
Stage Collar On the surface casing string								37.97 mKB		
Heat / Siphon String								mKB		
Annular Fluid 10% NaCl water w/ 0.9 % inhibitor & topped w/ 1.6 m³ diesel								m³		
Perforations / Open Hole					Top	Bottom	BHP	BHT	H ₂ S	CO ₂
Date	Formation				(mKB)	(mKB)	(kPa)	(°C)	(%)	(%)
Bottomhole Equipment Description (from top down) depth in mKB										
Item	Jts	Description							Length	Top
		Remedial Cementing Perf/Cut Approximations. Pefts/Cuts to be optimized based on CBL result. 117-193mKB, 240-380mKB, 515-616mKB								
		Remedial cement will have minimum target placements of 117-193, 240-380, 515-616mKB								
		177.8mm Bridge Plug @~685.0mKB or ~10m below cement top								
Remarks										





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	<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"/>
7	On-site safety meeting held?	<input type="checkbox"/>		
8	Ground Disturbance Authorization received?	<input type="checkbox"/>		<input type="checkbox"/>
9	Hot work permits received?	<input type="checkbox"/>		<input type="checkbox"/>
10	Personal 4-head gas monitoring in place?	<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"/>
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: _____ (Required: Depth or Unknown) 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: _____ (Required: Depth or Unknown)			
17	Nu Wave Technology used?	<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"/>		

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.jodymccconnell@ddmail.ca

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

2 Photos Required: 1. Close up of the capped casing.

2. Cap in relation to excavated hole, needs to show that cap is under final ground level