



## Well Operations Report

**Well Name:** NETLA A-68  
**UWI:** 300/A-68-60.50-122.30/00  
**License #:** WID1936  
**Field:** FT LIARD (5501)  
**Profile:** Directional  
**Zone:** Slave Point  
**Class:** Level II

CNRL has performed the well abandonment operations within the last 30 days for this well as outlined in the approved program. Included in this document are the daily reports, and a wellbore schematic of the current state of the well. Additional documentation will follow in the summer once a gas migration test is complete with a change of well status form, and pictures of the cut and capped wellbore.

Please advise if any additional information is required

Thank you,

Canadian Natural Resources Limited

A handwritten signature in black ink, appearing to read "T. Bernhard".

Terran Bernhard, P.Eng.

Abandonment Engineer

**Canadian Natural Resources Limited**

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**Canadian Natural****Downhole Schematic (Gov't Submission)****ANADARKO NETLA A-68**

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location		License # NT001936		Field Name FT LIARD			Province N.W.T																
Well Profile Directional	Fluid Type Deep Gas	Original KB Elevation (m)	654.00	KB-Ground Distance (m)	4.70	KB-Casing Flange Distance (m)	4.70	KB-Tubing Head Distance (m)	654.00																
Latitude (°) 60° 47' 1.259" N	Longitude (°) 122° 41' 18.01" W	Orig Spud Date 2/23/2002	Orig RR Date 3/16/2002	C&C Date 2/11/2023	GW Protected?	BGWP (mKB) 604.70	Oilsand Area No																		
Directions To Well										H2S Classification Sweet															
Directional - Original Hole, 3/3/2023 2:35:26 PM					<b>SCVF &amp; GM Tests (Last 2 Records)</b>																				
MD (mKB)	TVD (mKB)	Vertical schematic (actual)			Test Date	Test Type			Failed?																
0.0	0.0				1/27/2023	Gas Migration			No																
4.7	4.7				1/28/2023	SCVF			No																
<b>Openhole Information</b>																									
Section Des		Size (mm)		Top (mKB)		Bottom (mKB)																			
Surface		311.2		4.70		560.00																			
Intermediate 1		215.9		560.00		2,028.00																			
Main 1		155.6		2,028.00		2,078.00																			
<b>Casing Strings</b>																									
Csg Des			OD (mm)	Wt/Len (kg/m)	Grade	Top (mKB)	Set Depth (MD) (mKB)																		
Surface			244.5	59,527	K-55	6.70	562.00																		
Production			177.8	38,692	L-80	6.70	2,030.00																		
<b>Cement Stages</b>																									
Description		Cementing Start Date		Top Depth (mKB)		Btm (mKB)	Vol Cement Re...																		
Surface Cement		2/27/2002		6.70		560.00	3.50																		
Comment 31.7 tonnes (24m3) G + 1.0% CaCl2, 3.5m3 cement returns																									
Description		Cementing Start Date		Top Depth (mKB)		Btm (mKB)	Vol Cement Re...																		
Intermediate Cement		3/30/2002		424.30		2,028.00	0.00																		
Comment 18.67 (17.47m3) tonnes 1-1-2 G + 0.5% CD-31 (1682 kg/m3) tailed with 7.0 tonnes (5.28m3) G + 0.2% R6N + 0.8% NFL-2 + 1.0% CaCl2 (1900 kg/m3). Preflush returns.																									
Bond log ran Mar 16, 2002. High speed pass only 1800 m to surface.																									
Description		Cementing Start Date		Top Depth (mKB)		Btm (mKB)	Vol Cement Re...																		
Thermal Cement Plug		1/28/2023		1,947.80		1,997.80																			
Comment Circulated 1m3 (50 Lineal Meters) Thermal 40 Cement On Bridge Plug																									
<b>Perforations</b>																									
Zone		Top (mKB)		Btm (mKB)		Current Status																			
Slave Point, Original Hole		2,028.00		2,078.00		Suspended																			
<b>Tubing Strings</b>																									
Tubing - Production (NSCT) set at 2,023.72mKB on 3/17/2002 00:00																									
Tubing Description		String Max N...		Wt (kg/m)		String Grade																			
Tubing - Production (NSCT)		73.0		9,673		L-80																			
Comment Otix PX Plug set and negative pressure test - 2/19/2004. Tubing filled with 8.5 m3 inhibited water and slip stop & hookwall plug set @ 54 mCF. No tests. - 2/20/2004 BPV set in tubing hanger - 2/20/2004.																									
<b>Tubing Components</b>																									
Item #	Jts	Item Des		OD (mm)	ID (mm)	Len (m)	Top (mKB)	Btm (mKB)																	
1-1	1	Tubing -coated		88.9	76.0	1.96	1,999.00	2,000.96																	
1-2	1	On-Off Tool 58.75mm X - coated		139.0	58.8	0.48	2,000.96	2,001.44																	
1-3	1	Howco BWC Perm Packer - coated		151.0	76.0	0.77	2,001.44	2,002.21																	
1-4	1	Box Collar Connector		73.0	62.0	0.19	2,002.21	2,002.40																	
1-5	1	Tubing Pup Joint - coated		73.0	62.0	2.96	2,002.40	2,005.36																	
1-6	1	Otis X Nipple 58.75mm - coated		73.0	58.8	0.38	2,005.36	2,005.74																	
1-7	1	Perforated Pup Joint - coated		73.0	62.0	3.09	2,005.74	2,008.83																	
1-8	1	Tubing Pup Joint - coated		73.0	62.0	3.12	2,008.83	2,011.95																	
1-9	1	On-Off Tool - no seals - coated		139.7	62.0	0.31	2,011.95	2,012.26																	
1-10	1	Cardium WDG Packer - coated		150.0	62.0	1.78	2,012.26	2,014.04																	
1-11	1	Tubing Pup Joint - coated		73.0	62.0	3.09	2,014.04	2,017.13																	
1-12	1	Otis X Nipple - 58.75mm - coated		73.0	62.0	0.25	2,017.13	2,017.38																	
1-13	1	Perforated Pup Joint - coated		73.0	62.0	3.11	2,017.38	2,020.49																	
1-14	1	Tubing Pup Joint - coated		73.0	62.0	3.08	2,020.49	2,023.57																	
1-15	1	WREG w/ __mm No-Go - coated		73.0	62.0	0.15	2,023.57	2,023.72																	

Open Hole; 2,028.00-  
2,078.00 mKB; Zone:  
Slave Point, Original  
Hole  
Current Status:  
Suspended  
Shot Dens:  
Calculated Shot Total: 1  
Phasing:

**Canadian Natural****Downhole Schematic (Gov't Submission)****ANADARKO NETLA A-68**

Current Event (UWI)	Surface Legal Location	License #	Field Name	Province	
300/A-68-60.50-122.30/00		NT001936	FT LIARD	N.W.T	
Well Profile Directional	Fluid Type Deep Gas	Original KB Elevation (m)	KB-Ground Distance (m)	KB-Casing Flange Distance (m)      KB-Tubing Head Distance (m)	
					654.00      4.70      4.70      654.00
Directional - Original Hole, 3/3/2023 2:35:27 PM			Other In Hole		
MD (mKB)	TVD (mKB)	Vertical schematic (actual)	Des	Run Date	Pull Date
0.0	0.0		BPV (for visual)	2/20/2004	1/18/2023
4.7	4.7		Diesel - Casing		4.70
6.6	6.6		Steel plate welded to centralizer	2/11/2023	
6.7	6.7		Fresh Water	1/27/2023	
10.0	10.0		Slip stop & Hook Wall Plug	2/20/2004	1/18/2023
77.4	77.4		Inhibited Water - Casing	1/27/2023	58.00
424.3	424.3		Inhibited Water - Tubing	2/20/2004	77.40
560.0	560.0		Thermal 40 Cement Plug	1/28/2023	126.00
562.0	562.0		HM2 10k Permanent Bridge Plug	1/28/2023	2,012.00
680.5	680.5		2.31" Otis PX Plug - Passed Negative Test	2/19/2004	1,947.80
734.0	734.0				1,997.80
1,013.8	1,013.6				1,998.30
1,094.2	1,093.4				
1,183.5	1,181.1				
1,209.0	1,205.9				
1,947.8	1,914.5				
1,994.0	1,959.8				
1,997.8	1,963.5				
1,998.3	1,964.0				
1,999.0	1,964.7				
2,001.0	1,966.7				
2,001.4	1,967.1				
2,002.2	1,967.9				
2,002.4	1,968.1				
2,005.4	1,971.0				
2,005.7	1,971.3				
2,008.8	1,974.4				
2,011.9	1,977.4				
2,012.0	1,977.5				
2,012.3	1,977.8				
2,014.0	1,979.5				
2,017.1	1,982.6				
2,017.4	1,982.9				
2,020.5	1,985.9				
2,021.0	1,986.4				
2,023.6	1,989.0				
2,023.7	1,989.1				
2,028.0	1,993.3				
2,030.0	1,995.3				
2,078.0	2,042.7				
Open Hole; 2,028.00 2,078.00 mKB; Zone: Slave Point, Original Hole Current Status: Suspended Shot Dens: Calculated Shot Total: 1 Phasing:			Formation Tops		
			Formation Name	Top (mKB)	Com
			Devonian	680.50	Porous
			Kotcho	734.00	Porous
			Tetcho	1,013.80	Porous
			Trout River	1,094.20	Tight
			Kakisa	1,183.50	Porous
			Fort Simpson	1,209.00	Tight
			Muskwa	1,994.00	Tight
			Slave Point	2,012.00	Tight
			SLAVE POINT POROSITY	2,021.00	Porous

**Canadian Natural****Daily Service Report (Gov't Submissions)****ANADARKO NETLA A-68**Job: Abandonment  
Report #: 1.0

1/18/2023 12:00 to 1/18/2023 17:00

Current Event (UWI) 300/A-68-60.50-122.30/00	Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective			Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa)
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Tubing Pressure (kPa) 0

**Daily Activities**

Morning Ops @ 7am

SR: MIRUSR

Daily Operations Summary

Move wellhead crew to location. Swept location with 4 head gas monitor with no LEL'S or H2S detected. Bubble test SCV = No Bubbles. SITP 0 KpaDW. Rig in wellhead equipment pulled BPV from tbg hanger. Slickline pull G Pack-off plug from 54 mGL (no change in pressure) Pull Slip stop. Shut in & Secure well. Rig out all equipment. Travel to camp.

**Time Log**

Start Time	Dur (hr)	Com
12:00	0.50	Travel from A-77 to location. Move in Stream Flo, United Safety air hand, Reliance Slickline unit HD0164. Move in Poorboy Picker
12:30	0.25	Review CNRL hazard assessment and TIW plan. Service providers complete HA & JSA for tasks today. Held safety meeting with all personal reviewed hazards of spotting equipment and pulling BPV. Slips, trips, line to fire, pinch points, backing up using spotters, Make sure workers wearing traction aid.
12:45	1.00	Moved in and spotted Stream flo unit. Check for hazards around wellhead. Bubble test SCV = No bubbles, monitor throughout job. Had safety hand don air pack and checked for any H2S on tbg. No H2S. SITP 0 KpaDW. Make up 50.8mm Lubricator & screw into BPV. Screw out BPV from Tubing hanger & Lubricate out 88.9mm back pressure valve from tbg hanger which is double check valve BPV. Shut in & secure well. Rig out Stream Flo crew
13:45	0.00	Held safety meeting with Reliance slickline crew & Poorboy Picker. Filled out JSA and reviewed hazards of slickline operations and procedures for pulling plug at 54 mGL.
13:45	1.75	MIRU Reliance slickline unit, BOP's and lubricator purged and pressure tested lubricator with N2 to 7 Mpa (good) RIH with equalizing prong to 54 mGL. Jar down many times with no pressure change. RIH GS pulling tool to 54 mGL. Latch and pull G Pack-off plug. POOH with plug to surface. Found Kobe's knockout not broken. RIH RB pulling tool & latch Slip Stop @ 54 mGL. POOH Slip Stop. Shut in & secure well with double master valves. Rig out Reliance Slickline unit & Picker.
15:30	1.50	Travel to camp.

**Perforations Summary****Daily Fluids Summary**

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
				Jeffrey Willick	Abandonment Ops Mgr.
				Dale Duffy	Superintendent
				Phil Millard	Wellsite Supervisor
				Contractor Reliance Oilfield Services	Rig Number HD0164
				Rig Manager Brent Belanger	

**Canadian Natural****Daily Service Report (Gov't Submissions)****ANADARKO NETLA A-68**Job: Abandonment  
Report #: 2.0

1/25/2023 13:00 to 1/25/2023 19:00

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa)	Tubing Pressure (kPa)
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

**Daily Activities**

Morning Ops @ 7am

SR: Change over Handling Equip install BPV valve install and Test Bops

Daily Operations Summary

Rig Move to A-68 Sppot equip Hold Pre-Jsm with all personal R/U SR &amp; Equip and all services Mob in 35m3 of fresh water and 400 Barrel winterize equip SDFN.

**Time Log**

Start Time	Dur (hr)	Com
13:00	1.50	Move SR & Equip From I-75 to above location move in sweet lease
14:30	0.50	Conduct Pre-JSM with Services, Reviewed CNRL'S Workplace Harassment and Voilence Prevention Policy Plan CNRL-OVR-POL-HR-000018 Review Hazard Assessment, TIWP and Fire & Explosion, 4-Pillars of safety, Ensure personal have CNRL CSO Orientation and are fit for duty, Review Jsa's and sign off on services Hazard Assessment, Review Abandonment program and job scope, Hot Steam, Proper PPE Check Pressures, Line of fire, swing path, Crush Zones overhead loads, Slips & Trips Know muster points and plan escape routes. Use 3 point contact at all times. Traffic Moving Equip Blind Spots and Spoters Laying out Matting Rigging in SR & Equip Good Communication at all time.
15:00	4.00	Spot & Layout Rig Matting spot 400 barrel and Pump Truck Mob in 35m3 of fresh water R/I SR & Equip R/I Test Vessel and Flare R/U all services to CNRL and PWS Regulations, winterize equip SDFN.

**Perforations Summary****Daily Fluids Summary**

Fluid	To well (m³)	From well (m³)	Left to recover (m³)
Fresh Water	10.00	0.00	10.00

**Operational Supervisors**

Contact	Title
Jeffrey Willick	Abandonment Ops Mgr.
Dale Duffy	Superintendent
Mike Hamer	Wellsite Supervisor
Contractor Precision Well Servicing	Rig Number 829
Rig Manager Anthony Klimm	



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## Daily Service Report (Gov't Submissions)

## ANADARKO NETLA A-68

Job: Abandonment  
Report #: 3.0

1/26/2023 07:00 to 1/26/2023 19:30

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa) 35	Tubing Pressure (kPa) 0
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

## Daily Activities

Morning Ops @ 7am
SR: Circulate Well To Fresh Water
Daily Operations Summary
Rig in Pump / Tank And Testers, Spot Boiler. Unloaded 35 m3 Fresh Water In 400 bbl Tank (70m3 Total On Lease). Unable To Remove Wellhead (Frozen), Rig In Boiler Lines And Steam Wellhead. Remove 11" Wellhead And Install 11" BOP Stack On Well With Picker, Rig in Working Floor And Spot Catwalk. Install BPV. Check Precharge Pressures On Accumulator And Booster Pack. Function test BOPs. Complete PT On All BOP Components. Multiple Attempts Made To Release On/Off, No Success. MIRUWL, RT Gauge Ring To 2001 mkb, RIH Jet Cutter, Coorolate Onto Depth, Cut Tubing @ 1999 mkb. ROMOWL. Tubing Pulling Free @ 33 Dan.

## Time Log

Start Time	Dur (hr)	Com
07:00	0.50	07:00 - 07:30 Hrs - Complete a detailed Safety MTG with PWS (Service Rig Crew), Skyline, Poorboy and United safety. Review CNRL, PWS, Skyline, United Safety Policy's & Procedures, Review Transportation of injured worker Plan. Fire & Explosion Plan, Medic Locations, Ensure OROGO, OHS, CNRL, Policies are followed. Review CNRL 4-Pillars/KPI's, Review site specific Job details/JSA's, Detailed discussion on working on sour wells, crew positioning, critical tasks and emergency muster points. Sweep lease and wellhead area for LEls and H2S, lease clear.
07:30	5.50	07:30 - 13:00 Hrs - Pack up qualified worker and air hand, check well pressures ( 0 kpa tbg - 30 kap csg) No signs of H2S. Spot tubing catwalk and boiler. Break apart 11" wellhead. Unable to pull wellhead free from casing bowl (Frozen), Rig in boiler lines and steam wellhead. Remove with PoorBoy picker. Install 11" BOPs and Annular. Rig in pump & tank. Rig in working floor, tongs, stairs and handrails. Ensure all OROGO, CNRL, OHS and company specific regulations are followed. Rig in accumulator, spare bottles and booster pack. Install BPV in tubing.
13:00	2.00	13:00 - 15:00 Hrs - Check pre-charge pressures on all bottles in system: Start pressure for accumulator = 14,000 kpa, After closing pipe rams, blind rams and annular a final pressure of 9500 kpa remained. Recharge time was 1 min 35 seconds. Tie in pump line to working spool, pressure test pipe rams and blind rams (1.4 Mpa low - 34 Mpa high) 10 min test good. Pressure test Annular (1.4 Mpa low - 7 Mpa high) 10 min test good. Rig out pump lines. Pull BPV from tubing hanger. Remove leg screws.
15:00	1.00	15:00 - 16:00 Hrs - Work tubing string and make multiple attempts to come off of On-Off without success. Notify Calgary. Approval to jet cut tubing above On-Off was granted. Continue to work string and attempt to release on/off while waiting on Wireline unit.
16:00	3.00	16:00 - 19:00 Hrs - Hold PJSM with Eclipse Wireline. MU 70 mm gauge ring, lower blocks and pull 4 dan over string (36 Dan total) rig in wireline, BOP and lube. RIH gauge ring to 2001 mkb, ( Top Of On - Off ). Surfaced wireline and gauge ring. MU 60.3 mm jet cutter, Pickup, RIH and coorolate onto depth, Pick up 0.5 m and Set cutter @ 1999 mkb. Set off charges and cut tubing. Surface wireline and cutter, rig out lube and BOP laying out on catwalk. ROMOWL. Pull up on tubing string, pulling free at 33 dan. Reland hanger.
19:00	0.50	19:00 - 19:30 Hrs - Shut, Cap and secure well, winterize all equipment. SDFN.

## Perforations Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water			10.00	Jeffrey Willick	Abandonment Ops Mgr.
				Dale Duffy	Superintendent
				Mike Hamer	Wellsite Supervisor
				Contractor Precision Well Servicing	Rig Number 829
				Rig Manager Anthony Klimm	



Canadian Natural

## Daily Service Report (Gov't Submissions)

ANADARKO NETLA A-68

Job: Abandonment  
Report #: 4.0

1/27/2023 07:00 to 1/27/2023 17:30

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa) 0	Tubing Pressure (kPa) 0
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

## Daily Activities

Morning Ops @ 7am

WL: Gauge Ring, Bridge Plug, Complete RBL

Daily Operations Summary

Reverse Circulate Well With 45 m3 Fresh Water Returning Through P-Tank, POOH 210X88.9 mm Coated Tubing To Catwalk, Complete Tubing Swap, Change Over To 73 mm Handling Equipment, PT Pipe Rams

## Time Log

Start Time	Dur (hr)	Com
07:00	0.50	07:00 - 07:30 Hrs - Complete a detailed Safety MTG with PWS (Service Rig Crew), Skyline, Cordova and United safety. Review CNRL, PWS, Skyline, United Safety Policy's & Procedures, Review Transportation of injured worker Plan. Fire & Explosion Plan, Medic Locations, Ensure OROGO, OHS, CNRL, Policies are followed. Review CNRL 4-Pillars/KPI's, Review site specific Job details/JSA's, Detailed discussion on working in colder weather, taking breaks, critical tasks and emergency muster points. Sweep lease and wellhead area for LEELs and H2S, lease clear.
07:30	1.00	07:30 - 08:30 Hrs - Pack up qualified worker and air hand. Check pressures on well. (0 kpa tbg - 0 kpa csg) No signs of H2S, Steam down pump lines, pump manifold and testers lines. Function test ram saver, crown saver, air horn, e-kills and all safety devices (Good). Pull and remove tubing hanger.
08:30	2.00	08:30 - 10:30 Hrs - Rig pump line onto casing and testers to tubing. Spot tankers and tie into P-Tank. Pumped a total of 45 m3 reverse circulating well to fresh water. Rig out pump lines and tankers. Recovered 39 m3 back to tankers. Complete 10 min bubble test, no bubbles detected. Perform GM testing as per CNRL procedure. No GM detected at time of testing.
10:30	6.00	10:30 - 16:30 Hrs - POOH production tubing string to catwalk as follows: 1X88.9 mm Coated tubing, 1X88.9 mm Coated pup, 208X88.9 mm Coated tubing + 7.46 m of cut off Coated tubing. Clear working floor. Change over handling equipment to 73 mm. Move in and spot picker, have bed truck haul in workstring. Load 88.9 mm production tubing and spot 73 mm workstring.
16:30	1.00	16:30 - 17:30 Hrs - Land Tbg Hanger, De-Energize And Bleed Off BOP System. Secure 4 Leg Bolts. Change pipe rams from 88.9 mm to 73 mm. P/Test Pipe Rams to 1.4 Mpa low and 32 Mpa high. Hold each element on low and high for 10 mins each. Good Test. Bleed off pressure pull Tbg Hanger, shut, cap and Secure well, winterize equip. SDFN.

## Perforations Summary

## Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	45.00	0.00	55.00	Jeffrey Willick	Abandonment Ops Mgr.
Other	0.00	39.00	-39.00	Dale Duffy	Superintendent
				Mike Hamer	Wellsite Supervisor
				Contractor Precision Well Servicing	Rig Number 829
				Rig Manager Anthony Klimm	



Canadian Natural

## Daily Service Report (Gov't Submissions)

## ANADARKO NETLA A-68

Job: Abandonment  
Report #: 5.0

1/28/2023 07:00 to 1/28/2023 18:30

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa) 0	Tubing Pressure (kPa) 0
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

## Daily Activities

Morning Ops @ 7am  
SR: POOH Workstring To Catwalk  
Daily Operations Summary  
MIRUWL, RT 148 mm Gauge Ring To Cut Tubing Top @ 1999.00 mkb, MU HM2 10k Permanent BP, RIH And Correlate Onto Depth. Set BP CE @ 1998.00 mkb. Surface Wireline, ROMOWL. Fill Hole And PT BP To 7 Mpa For 10 Mins. Good Test (Start 7238 kpa - Finish 7189 kpa). RIH With 210X73 mm Tubing, Tag BP @ 1997.80 mkb, Pull Up 0.5 m. MIRU C&A Unit. Pre-Flush 500L Fresh Water, Pressure Test Surface Equipment to 14 Mpa, Batch Mix 1m3 Thermal 40 Blend @1800 kg/m3. Circulated To Bottom With 5.6m3 Fresh Water To Balance. (50 Lineal meters) TOC = 1947.80 mkb, Pulled 8 Joints And Backwash Tubing With 1.5XTubing Volume.

## Time Log

Start Time	Dur (hr)	Com
07:00	0.50	07:00 - 07:30 Hrs - Complete a detailed Safety MTG with PWS (Service Rig Crew), Skyline, and United safety. Review CNRL, PWS, Skyline, United Safety Policy's & Procedures, Review Transportation of injured worker Plan. Fire & Explosion Plan, Medic Locations, Ensure OROGO, OHS, CNRL, Policies are followed. Review CNRL 4-Pillars/KPI's, Review site specific Job details/JSA's, Detailed discussion on working in cold weather, taking breaks, critical tasks and driving in bad road conditions. Sweep lease and wellhead area for LEls and H2S, lease clear.
07:30	0.50	07:30 - 08:00 Hrs - Pack up qualified worker and air hand. Check pressures on well. (0 kpa tbg - 0 kpa csg) No signs of H2S, Function test ram saver, crown saver, air horn and e-kills. Heat up wellhead and pump lines.
08:00	3.50	08:00 - 11:00 Hrs - Hold pre-job safety meeting with Eclipse wireline. Spot equipment. install flange and BOPs. Make up 148 mm Gauge ring. Pick up, place in hole and Install lubricator. Flag and cone off No Go zones. RIH gauge ring, CCL, gamma to 1999.00 mkb (cut tubing top), Log well 300m. Surface gauge ring, break out lube and lay out BHA to ground. Make up, arm and RIH 142.8 mm DM2 Permanent 10k BP. RIH to 1999.00 mkb, Pull pass and Coorolate plug onto depth with IPS Packer setting log (March 20 2002), set BP with CE @ 1998.00 mkb, (top of plug 1997.80 mkb - bottom of plug 1998.20 mkb) surface wireline, Rig out BOP, lube wireline unit.
11:30	0.50	11:00 - 11:30 Hrs - Tie pump line into working spool, fill hole with 6m3 fresh water. Pressure up to 7 MPa for 10 mins. Start 7238 kpa - finish 7189 mkb. Good test. Bleed back pressure, steam, suck back and winterize pump lines and manifold.
12:00	4.00	11:30 - 15:30 Hrs - Talley work string off catwalk. RIH open ended with 209X73 mm tubing. Started displacing on joint 15, tied in pump line and sucked back while tripping remaining tubing. Tag and confirm bridge plug depth, space out with 10 ft pup and land tubing 0.5 m above plug. Install TIW valve, Prep for cementers.
16:00	2.50	15:30 - 18:00 Hrs - Hold PJSM with Charger Cementers. Rig in C&A Unit, bulkier and pump lines, batch mix 1m3 Charger Thermal 40 Blend @ 1800 kg/m3, preflush with 500L fresh water, pressure test surface lines to 15 Mpa, pump 1m3 cement and displace plug with 5.6 m3 fresh water to balance. Rig out cementers. TOC is @ 1947.80 mkb, pull and lay out 8 tubing to catwalk. Tie in rig pump and line, backwash tubing with 9 m3 fresh water. Use vac to clean up pumper and suck out lines.
18:30	0.50	18:00 - 18:30 Hrs - Shut, cap and secure well. Clean up work area and winterize equipment. SDFN.

## Perforations Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Cement	1.00	0.00	1.00	Jeffrey Willick	Abandonment Ops Mgr.
Fresh Water	22.00	0.00	77.00	Dale Duffy	Superintendent
Other	17.00	0.00	-22.00	Mike Hamer	Wellsite Supervisor
				Contractor Precision Well Servicing	Rig Number 829
				Rig Manager Anthony Klimm	



Canadian Natural

## Daily Service Report (Gov't Submissions)

## ANADARKO NETLA A-68

Job: Abandonment  
Report #: 6.0

1/29/2023 07:00 to 1/29/2023 17:00

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa) 0	Tubing Pressure (kPa) 0
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

## Daily Activities

Morning Ops @ 7am

SR: ND BOPs, NU Wellhead, Move Equipment To C-07.

Daily Operations Summary

POOH 200X73.0 mm Tubing To Catwalk, MIRUWL, Complete RBL From 1920 mkb To Surface, Send Logs To Calgary For Interpretation, Rig Out Boiler, Pump / Tank, P-Tank, Pump Lines, Testers, Accumulator Lines And Service Rig. Move And Spot Equipment On Side Of Location.

## Time Log

Start Time	Dur (hr)	Com
07:00	0.50	07:00 - 07:30 Hrs - Complete a detailed Safety MTG with PWS (Service Rig Crew), Skyline and United safety. Review CNRL, PWS, Skyline, United Safety Policy's & Procedures, Review Transportation of injured worker Plan. Fire & Explosion Plan, Medic Locations, Ensure OROGO, OHS, CNRL, Policies are followed. Review CNRL 4-Pillars/KPI's, Review site specific Job details/JSA's, Sweep lease and wellhead area for LEls and H2S, lease clear.
07:30	0.50	07:30 - 08:00 Hrs - Pack up qualified worker and air hand. Check pressures on well. (0 kpa tbg - 0 kpa csg) No signs of H2S, Function test ram saver, crown saver, air horn, e-kills and all safety equipment. Heat up wellhead and pump lines. Prep equipment to POOH.
08:00	2.50	08:00 - 10:30 Hrs - POOH 73 mm work string, lay out sideways 200 tubing on catwalk, Change over equipment and prep for wireline. Top Filled hole with 4m3 fresh water with 10 joints remaining in hole.
10:30	3.50	10:30 - 14:00 Hrs - Back in and spot wireline unit. Install XO flange and lube. Make up multiplex RBL tool. Pick up, place in hole and Install lubricator. Flag and cone off No Go zones. RIH RBL tool high speed pass to 1920 mkb (keeping tool 27 m above cement top), pull pass and correlate to IPS Packer setting log dated March 20 2002. Perform main pass out of hole from 1920 mkb to surface @ 13 m/min. BH Temp is 120 degrees. Rig out XO flange, lube and wireline unit. Logs sent to Calgary for Interpretation.
14:00	3.00	14:00 - 17:00 Hrs - Rig out stairs, tubing catwalk and working floor. Complete visual inspection of mast lowering equipment. Lower mast, take rig off jacks, rig out service rig, boiler, testers, accumulator lines and all support equipment. Break apart pump lines and load rig tank, Hook up to doghouse. Complete wellhead cleanup. Prep equipment for rig move. Ready To Nipple Down BOPs in morning with picker.

## Perforations Summary

## Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Cement	0.00	0.00	1.00	Jeffrey Willick	Abandonment Ops Mgr.
Fresh Water	4.00	0.00	81.00	Dale Duffy	Superintendent
Other			-22.00	Mike Hamer	Wellsite Supervisor
				Contractor Precision Well Servicing	Rig Number 829
				Rig Manager Anthony Klimm	

**Canadian Natural****Daily Service Report (Gov't Submissions)****ANADARKO NETLA A-68**Job: Abandonment  
Report #: 7.0

1/30/2023 07:00 to 1/30/2023 08:30

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa) 0	Tubing Pressure (kPa) 0
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

**Daily Activities**

Morning Ops @ 7am

C&amp;C: Well Ready To Cut And Cap

Daily Operations Summary

Nipple Down 11" BOPs And Annular, Install Wellhead, Shut, Cap And Secure Well.

**Time Log**

Start Time	Dur (hr)	Com
07:00	0.50	07:00 - 07:30 Hrs - Complete a detailed Safety MTG with PWS (Service Rig Crew), Skyline, PoorBoy and United safety. Review CNRL, PWS, Skyline, United Safety Policy's & Procedures, Review Transportation of injured worker Plan. Fire & Explosion Plan, Medic Locations, Ensure OROGO, OHS, CNRL, Policies are followed. Review CNRL 4-Pillars/KPI's, Review site specific Job details/JSA's, Sweep lease and wellhead area for LEls and H2S, lease clear.
07:30	1.00	07:30 - 08:30 Hrs - Back in and spot picker, Remove Annular and 11" BOPs, Install wellhead and secure, Load rig matting and handling equipment. Move tubing trailer into position with bed truck and load 400 bbl tank. Prep to move equipment to C-07.

**Perforations Summary****Daily Fluids Summary**

Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Cement	0.00	0.00	1.00	Jeffrey Willick	Abandonment Ops Mgr.
Fresh Water	0.00	0.00	81.00	Dale Duffy	Superintendent
Other	0.00	0.00	-22.00	Mike Hamer	Wellsite Supervisor
				Contractor Precision Well Servicing	Rig Number 829
				Rig Manager Anthony Klimm	

**Canadian Natural****Daily Service Report (Gov't Submissions)****ANADARKO NETLA A-68**Job: Abandonment  
Report #: 8.0

2/11/2023 12:30 to 2/11/2023 18:00

Current Event (UWI) 300/A-68-60.50-122.30/00		Surface Legal Location	License # NT001936	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/18/2023	Ground Elevation (m) 649.30	Tubing Head Elevation (m) 0.00	KB-TH (m) 654.00	Casing Pressure (kPa) 0	Tubing Pressure (kPa)
Job End Date 2/11/2023	Original KB Elevation (m) 654.00	Casing Flange Elevation (m) 649.30	KB-Casing Flange Distance (m) 4.70	Road Condition Rough	Set Depth (MD) (mKB) 562.00

**Daily Activities**

Morning Ops @ 7am

RR: Ready for Reclamation

Daily Operations Summary

Conduct SCV/ GM test, both good. Dig up 2.5 M around well. Welder cut off wellhead. Weld vented plate between Surface & Production Casings. Weld on vented cap with ID #1936. Push in 5 M 73mm Jnt 1 M North of well centre. Back-fill hole with clean dirt. Make up sign with ID #, Company name, Date of Cut & Cap, Coordinates with NAD 83. Production casing cut 2 M below original ground level, Lease is ready for reclamation.

**Time Log**

Start Time	Dur (hr)	Com
12:30	0.50	Checked with GM tester no ppm's. Conduct Gas Migration test; Take 4 readings at 90° around casing, at a 2 meter radius and at a 6 m radius around well as per CNRL SCVF & GM Testing - Operational Procedures (July 2011). Recorded 0 ppm readings at all locations.  SCVF/GM testing done as per CNRL SCVF & GM Testing – Operational Procedure: No issues.  Ensure vent is clear. Bubble test SCV for 15 min (No Bubbles)
13:00	5.00	Travel to location Sweep work area with bump tested LEL monitor 0 - LEL's & 0 - PPM H2S. Conduct pre job safety meeting with services complete and review, Hazard Assessment, TIW and OROGO Regulations. Ensure all personnel have had CSO or PST Orientation. Review Beaver Enterprises & Nahanni Hazard Assessment. Dig down 2.5 M below GL. Weld vented plate between Surface & Production Casings. Weld on 177.8mm vented cap with ID #1936. Push in 5 M 73mm Jnt 1 M North of well centre. Back-fill hole with clean dirt. Make up sign with ID #, Company name, Date of Cut & Cap, Coordinates with NAD 83. Spray paint Sign & post Orange. Well cut 2 M below original ground level  Ensure pictures of operations are in attachments. No Grd Dist as confirm no under ground lines in this field. Lease is cleaned up. Well is Cut & Capped Feb 11 2023 Well is now ready for reclamation.

**Perforations Summary****Daily Fluids Summary**

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Cement	0.00	0.00	1.00	Jeffrey Willick	Abandonment Ops Mgr.
Fresh Water	0.00	0.00	81.00	Dale Duffy	Superintendent
Other	0.00	0.00	-22.00	Phil Millard	Wellsite Supervisor
				Contractor	Rig Number
				Rig Manager	