

# Daily Morning Report

## COPRC MIRROR LAKE N-20 65-00 126-45

Report #: 21  
Report Date: 2/21/2016  
Final Job Status:  
Final Report? No

Country CANADA	State/Province N.W.T.	Region / Division WCBU	District NEW VENTURES	Field Name Mirror Lake	Field Code
Surface Legal Location N20 65-00 126-45		API / UWI 300/N20 65-00 126-45/0		License No. EL 470 WID 2079	

Job Information			
Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
ABANDONMENT	ABANDONMENT P&A	SURFACE CASING VENT	1,028,474.53

<b>Objective</b> Abandon Cut and Cap					
Actual Start Date 1/16/2016 14:00	End Date	Abandon Date (C&C)	Responsible Grp 1 coved	Responsible Grp 2 lborbel	Responsible Grp 3 Michael Short
AFE / RFE / Maint.# 10385949	Total AFE Amount (Cost) 1,310,000.00	Total AFE + Supp Amount (Cost) 1,310,000.00	Total Field Estimate (Cost) 1,028,474.53	AFE-Field Estimate (Cost) 281,525.47	
AFE / RFE / Maint.# 10385945	Total AFE Amount (Cost) 946,350.00	Total AFE + Supp Amount (Cost) 946,350.00	Total Field Estimate (Cost)	AFE-Field Estimate (Cost) 946,350.00	

<b>Daily Operations</b>					
Report Start Date 2/21/2016 06:00	Report End Date 2/22/2016 06:00	Daily Cost Total (Cost) 35,906.50	Cumulative Cost (Cost) 998,893.03	Personnel Regular Hours (hr) 242.00	

<b>Daily Contacts</b> WS Superintendent, Derrick Cove, 780-831-1314; Abandonment Engineer, Louis Borbely, 403-650-3939; WS Supervisor, Michael Short, 403-348-7127; WS Supervisor, Marty Dushanek, 403-358-8911					Rig C&J Energy Services, 217
Tubing Pressure (kPa) 6,000	Casing Pressure (kPa) 0	Weather Clear	Temperature (°C) -30	Lease Condition good	

**Last 24hr Summary**  
Perform feed rate through cement retainer. Awaiting cement job. Crew Change: Continue to Fire Boiler & Jet Heater to Heat TBG Stump, Fresh Water & BOPs, Installed Schlumberger Thread Half & Hamer Valve off TBG Swivel, Organized Lease & Equipment. Wellhead Secured.

**24hr Forecast**  
Perform retainer cement squeeze on Imperial Sand interval 1623.0-1625.0mKB

Start Time	End Time	Dur (hr)	Op Code	Activity Code	Time P-T-X	Trbl Code	Operation
06:00	07:30	1.50	CEMENT	SISW	P		Drained Pump Line. Tarpred in & Heated TBG Stump. Continued to Fire the Boiler and Heat Water Tanks + BOPs.
07:30	08:00	0.50	CEMENT	SFTY	P		Held pre-job safety and operations meeting with all services. Review CPC PJHA, Discuss pumping hazards/ pressure testing/ slippery lease conditions and use of traction control/ overhead loads/ hammering/wrenching/cold weather operations. -25°C discuss work and break times. use buddy system/ pinch points on floor/ high pressure lines/ overhead loads/tag lines. Review transportation plan and muster areas with all workers. All workers safety certificates checked.
08:00	09:30	1.50	CEMENT	RURD	P		Perform daily walk around inspections and checks. Inspect all equipment for leaks/spills. None found. Sweep for LEL's, no LEL's  Check well pressures: SICP- 0 SITP -6000kPa ( stung into retainer) Surface casing- vent meter installed.  Spot and rig in Canol 5K pressure truck. Tarp and heat pump with flameless heater prior to pumping. Rig in 1" treating line to tubing for feed rate.  Tank truck load 10m³ 28°C fresh potable water containing <4000mg/L TDS to feed pressure truck.  NOTE: Tank truck was pre-loaded with 1m³ raw synthetic acid in anticipation for acid job. ( Had to load from SLB early morning due to SLB performing cement job on another location today) Pressure truck will offload raw acid back into tote at SLB shop after feed rate completed.
09:30	10:30	1.00	CEMENT	CIRC	T	Non-rig Surface Eqp	Attempt to push water through pressure truck treating lines to warm. Not able to pump due to priming issues, possibly frozen valves in pump. Continued to heat pump with flameless heater and troubleshoot issues.

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Start Time	End Time	Dur (hr)	Op Code	Activity Code	Time P-T-X	Trbl Code	Operation
10:30	13:30	3.00	CEMENT	CIRC	P		<p>Fill and warm pressure truck treating line. Pressure test line to 1.4 and 25MPa , test good.</p> <p>Pump 1m<sup>3</sup> down tubing to steady rates and warm all equipment. Slow rate and record feed rates as follows: Lowest rate pressure truck could achieve was 37L/min.</p> <p>37L/min @ 9,500kPa 50L/min @ 10,200kPa 75L/min @ 10,600kPa 100L/min @ 11,100kPa 150L/min @ 11,600kPa 200L/min @ 12,300kPa 250L/min @ 13,200kPa 300L/min @ 14,300kPa</p> <p>ISIP- 10,500kPa 10min ISIP -9,500kPa</p> <p>Send results to Louis Borbely</p> <p>Drain and winterize pressure truck. Purge line and plumbing of water for offloading acid at SLB shop.</p>
13:30	19:30	6.00	CEMENT	SVRG	P		<p>Rig crew tidy and organize lease and equipment. Transfer dirty fluid from rig tank into 400bbl tank. Install tarps under pipe racks to capture fluids when laying down tubing.</p> <p>Tarp in and heat tubing stump to avoid freezing.</p> <p>Held man down drill. Unconscious worker treated as spinal injury scenerio. Alarm sounded over radio, all workers met at muster area 1. Perrfomed head count (8men) 2 workers went in for resucue with 1 back up. IWV was collar dragged to muster area for assessment. Discussed that 2 workers if able to go in as back up. Someone to call medic to location as soon as possible via road radio LADD2. (medic on C-11 location - 500m away)</p>
19:30	19:45	0.25	RPEQPT	SFTY	P		<p>Held PJHA Meeting with All Night Shift Personnel. (7 Total) Discussed Days Objectives, Procedures &amp; Potential Hazards, Discussed Cold Temperatures, Footing, LSR's 1, 3, 4 &amp; 8, Continuing to Fire Boiler + Jet Heater to Heat TBG Stump, BOPs + Water, Hammering = Stand Clear + Watch Swing Paths, Steam/Boiler Safety, Good Communication, Proper Lighting, Cold Weather, Zero Spillage = Take Extra Time + Utilize Drip Trays, Proper Grounds, LSR # 3: Fall Arrest, LSR # 4: Overhead Equipment + LSR # 8: Safe Driving. Reviewed Transportation Plan, Emergency Phone Numbers, EMT + MTV. &gt; All Hands had 2016 Conoco Orientation + Valid Oilfield Tickets. &lt;</p>
19:45	20:00	0.25	RPEQPT	SFTY	P		<p>Held Cross-Over Meeting with Day Crew. Performed Daily Walk Around Lease Inspection.</p>
20:00	06:00	10.00	CEMENT	SISW	P		<p>Fired Boiler and Continued to Heat Water Tanks, TBG Stump + BOPs through the Night. Installed Schlumberger's Swedge + Hamer Valve off the TBG Swivel. &gt; Dug out Ground Cables + Tidied up Location.</p> <p>Held H2S Man Down Drill with Night Crew. Sounded Alarm, Met at Muster Area 1, Head Count of 7, Donned Air Pacs (Muster Area 2 was downwind of release), Performed Rescue of Injured Worker using the Two Man Carry. Revived Victim with Assistance of our on-site EMT, Made Mock Emergency Calls to Norman Wells After Hours Hospital Number. Secured Victim for Transport with MTV. Driller was to drive MTV.</p> <p>&gt; Held Post-Man Down Drill Meeting with all Hands. &gt; Discussed what we did well and where we could improve.</p>

### Report Fluids Summary

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	18.00	0.00	10.00	0.00	75.20

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Daily Costs			
BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BP PUMP LTD	Q300	40.00
Service Rig	C&J ENERGY PRODUCTION SERVICES CANADA LTD	E120	23,391.50
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	1,900.00
Surface Completion Equipment Rental	CENTRAL MACKENZIE ENVIRONMENTAL LTD	Q300	40.00
Surface Completion Equipment Rental	CENTRAL MACKENZIE ENVIRONMENTAL LTD	Q300	60.00
Wellsite Supervision & Engineering	FOCUS WELLSITE SUPERVISION LTD	T130	1,620.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	175.00
Wellsite Supervision & Engineering	MKH SHORT CONSULTING LTD	T130	1,620.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	325.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	325.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	75.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	75.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	75.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	125.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	1,645.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,205.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	1,575.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	Q300	450.00
Surface Completion Equipment Rental	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	Q300	350.00
Surface Completion Equipment Rental	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	Q300	50.00

### Cumulative Job Flared Gas By Zone

Zone	Volume Gas Total (E3m <sup>3</sup> )
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### Perforations

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/27/2013	Basal Lower Canol, Original Hole	2,059.00	2,060.00	20.0	Squeezed
3/28/2013	Middle Lower Canol, Original Hole	2,023.00	2,024.00	20.0	Squeezed
3/28/2013	Upper Lower Canol, Original Hole	1,993.00	1,994.00	20.0	Squeezed
2/8/2016	Basal Lower Canol, Original Hole	2,068.00	2,070.00	17.5	Squeezed
2/8/2016	Basal Lower Canol, Original Hole	2,068.00	2,070.00	17.5	Squeezed
2/8/2016	Basal Lower Canol, Original Hole	2,015.00	2,017.00	17.5	Squeezed
2/8/2016	Basal Lower Canol, Original Hole	2,015.00	2,017.00	17.5	Squeezed
2/14/2016	Upper Lower Canol, Original Hole	1,938.00	1,940.00	17.5	Squeezed
2/14/2016	Upper Lower Canol, Original Hole	1,938.00	1,940.00	17.5	Squeezed
2/17/2016	Imperial , Original Hole	1,906.00	1,908.00	17.5	Squeezed
2/17/2016	Imperial , Original Hole	1,906.00	1,908.00	17.5	Squeezed
2/20/2016	Imperial , Original Hole	1,623.00	1,625.00	17.5	Open - Not Flowing
2/20/2016	Imperial , Original Hole	1,623.00	1,625.00	17.5	Open - Not Flowing