

# Daily Morning Report

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

Report #: 24  
Report Date: 2/24/2016  
Final Job Status:  
Final Report? No

### WELL HEADER INFORMATION

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	
Orig KB/RT (m) 286.50	Ground Elevation (m) 281.30	KB-Grd (m) 5.20	KB-CF (m) 4.87	KB-TF (m) 4.32	Total Depth (mKB) 2,146.00
					PBTD (All) (mKB) Original Hole - 2,127.00

### JOB INFORMATION

Job Category ABANDONMENT	Primary Job Type ABANDONMENT P&A	Secondary Job Type SURFACE CASING VENT	Total Field Estimate (Cost) 1,287,006.97
Objective Abandon Cut and Cap			
Actual Start Date 1/16/2016 14:00	End Date	Abandon Date	Responsible Grp 1 coved
		Responsible Grp 2 lborbel	Responsible Grp 3 Michael Short

### AFE COST SUMMARY

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) 1,287,006.97	AFE-Field Estimate (Cost) 22,993.03
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

### DAILY INFORMATION

Report Start Date 2/24/2016 06:00	Report End Date 2/25/2016 06:00	Daily Cost Total (Cost) 110,947.93	Cumulative Cost (Cost) 1,287,006.97	Personnel Regular Hours (hr) 297.00
Daily Contacts 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) 9,600	Casing Pressure (kPa) 0	Weather Partly Cloudy	Temperature (°C) -21	Lease Condition good

### Last 24hr Summary

Perform retainer cement squeeze on Imperial Sand interval 1170.5-1173.5mKB as per program; Final squeeze pressure-12,800kPa. POH 60.3mm tubing. Crew Change: Oragnize Lease, Fire Boiler + Jet Heater; Heat Water, SCV + BOP Stack, Wellhead Secured.

### 24hr Forecast

Wait on Wireline Tools.

### PROCESS SAFETY REPORTING

Start Date		End Date		Process Safety Event	Activity at Time of Event
Start Time	End Time	Dur (hr)	Time P-T-X	Operation	
06:00	07:30	1.50	P	Continued to Fire Boiler & Jet Heater to Heat TBG Stump, SCV, BOPs & Fresh Water. >> CREW CHANGE. <<	
07:30	08:00	0.50	P	Held pre-job safety and operations meeting with all services. Review CPC PJHA, Discuss cement squeeze hazards/ pressure testing/ chemicals/ slippery lease conditions and use of traction control/ hammering/wrenching/ pinch points / high pressure lines/ overhead loads/tag lines/working at heights.( using ladder to remove treating hose. Review transportation plan and muster areas with all workers. All workers safety certificates checked.	
08:00	09:30	1.50	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 -9600kPa ( stung into retainer) Surface casing- vent meter installed.  Spot and rig in SLB C&A pumper, batch mixers and tank truck. Install treating line onto tubing swivel. Treating line ran through flameless heater hose to keep warm. Tarp in and heat block and manifold on pumping unit.  Discuss job scope and pumping volumes with supervisor.	

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Start Time	End Time	Dur (hr)	Time P-T-X	Operation
09:30	15:00	5.50	P	<p>Perform 3.24m<sup>3</sup> squeezeCRETE and 0.92m<sup>3</sup> G, no gas block retainer squeeze on Imperial Sand interval 1170.5-1173.5mKB as follows:</p> <p>09:45 Prime pump and heat lines with warm fluid. (24°C clean potable water containing &lt;4000mg/L TDS) Shut in and pressure test treating line to 31MPa.</p> <p>10:10- Pump 2.5m<sup>3</sup> potable water 100L/min to cool wellbore. Test slow rate while pumping. Able to achieve stable 10-12L/min @ 11,400kPa in low range.</p> <p>Shut down pump.</p> <p>10:45hrs- Begin mixing chemicals for 3.2m<sup>3</sup> squeezeCRETE slurry. (actual 3.24m<sup>3</sup>) (11:00hrs started mixing powder) 11:25hrs- Slurry mixed, check density with pressurized scale - 1680kg/m<sup>3</sup></p> <p>11:26hrs- Begin pumping 2.34m<sup>3</sup> squeezeCRETE slurry 75L/min @ 11,700kPa 11:59hrs- End of 75L/min stage pressure at 6100kPa</p> <p>11:59hrs- Slow rate to 50L/min, Begin pumping 0.9m<sup>3</sup> squeezeCRETE slurry 50L/min @ 5580kPa 12:17hrs- End of 50L/min stage pressure at 5990kPa 0.9m<sup>3</sup> under retainer</p> <p>12:18hrs- Start mixing 1.0m<sup>3</sup> G cement 1900kg/m<sup>3</sup> (actual 0.92m<sup>3</sup>) 12:25hrs- Done mixing cement</p> <p>12:25hrs-Begin pumping 0.9m<sup>3</sup> G at 30L/min Start pressure 5230kPa 12:57hrs- End of 30L/min stage pressure at 5400kPa 1.82m<sup>3</sup> under retainer</p> <p>12:57hrs- Start pumping water, Slow rate to 20L/min, pump 1.1m<sup>3</sup> water @ 5550kPa starting pressure 13:43hrs- End of 20L/min stage pressure at 8600kPa 2.92m<sup>3</sup> under retainer</p> <p>13:43hrs- Slow rate to 10-15L/min, Pump 1.0m<sup>3</sup> water at 10-15L/min starting pressure @ 8350kPa 15:00hrs-End of 10-15L/min stage pressure at 12,800kPa 3.92m<sup>3</sup> under retainer</p> <p>NOTE: Last 150L of squeeze, shut down 2 times for 3 min each time.</p> <p>Final squeeze pressure 12,800 kPa / 3.92m<sup>3</sup> slurry under retainer</p> <p>240L slurry left in tubing. 12 lineal meters of cement left on top of retainer. Estimated cement top @ 1147.80mKB</p>
15:00	16:00	1.00	P	<p>Sting out of retainer- J-latch stinger, no issues. Tubing went on vac. Rig off SLB treating iron. Pull and lay down 10 joints slowly. Tubing pulling dry indicating cement falling out of tubing. Rig on circulating equipment to backwash tubing. End of tubing at 1058.mKB. Backwash tubing until clean. No cement in returns. Rig off circulating equipment.</p>
16:00	17:30	1.50	P	<p>Continue to pull out of hole and lay down a total of 70 joints of 60.3mm tubing. Stand 50 joints of 60.3mm tubing for later use.</p>
17:30	19:30	2.00	P	<p>Vac truck and steamer on location. Review CPC PJHA, discuss vac truck and steamer hazards/ high pressure wash gun/ noise levels/ working over open hatch on rig tank/ no entry into tank</p> <p>Vac truck clean out cement from rig tank from above. Not able to clean very well. Still ~2.0m<sup>3</sup> of harder cement in bottom of tank that will have to be cleaned at later date. Top up vac truck with water out of cement bins and send to disposal.</p>
19:30	19:45	0.25	P	<p>Held PJHA Meeting with All Night Shift Personnel. (7 Total) Discussed Days Objectives, Procedures &amp; Potential Hazards, Discussed Footing, Proper Lighting, LSR's 1, 3, 4 &amp; 8, Continuing to Fire Boiler + Jet Heater to Heat, SCV, BOPs + Water, Hammering = Stand Clear + Watch Swing Paths, Steam/Boiler Safety, Good Communication, Zero Spillage = Take Extra Time + Utilize Drip Trays, 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	P	<p>Held Cross-Over Meeting with Day Crew. Performed Daily Walk Around Lease Inspection.</p>
20:00	06:00	10.00	P	<p>Fired Boiler + Jet Heater and Continued to Heat Water Tanks, SCV &amp; BOPs through the Night.</p>

### FLUID SUMMARY

Fluid	To lease (m <sup>3</sup> )	From lease (m <sup>3</sup> )	To well (m <sup>3</sup> )	From well (m <sup>3</sup> )	Left to recover (m <sup>3</sup> )
FRESH WATER	0.00	24.00	8.00	0.00	109.70

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### DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BP PUMP LTD	Q300	40.00
Cementing Services & Materials	C&J ENERGY PRODUCTION SERVICES CANADA LTD	J200	23,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,095.00
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
Completion Fluids & Other Chem	HRN CONTRACTING LTD	G300	2,200.00
Completion Fluids & Other Chem	HRN CONTRACTING LTD	G300	4,000.00
Wellsite Supervision & Engineering	MKH SHORT CONSULTING LTD	T130	1,620.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	200.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	200.00
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
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,055.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	1,008.00
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
Cementing Services & Materials	SCHLUMBERGER CANADA LIMITED	J200	64,189.93
Downhole Completion Equipment	SCHLUMBERGER CANADA LIMITED	C100	1,960.00
Completion Fluids & Other Chem	TERVITA CORP	G300	5,500.00
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 (E3m³)
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### PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
2/8/2016	Basal Lower Canol, Ori...	2,068.00	2,070.00	17.5	Squeezed
2/8/2016	Basal Lower Canol, Ori...	2,068.00	2,070.00	17.5	Squeezed
3/27/2013	Basal Lower Canol, Ori...	2,059.00	2,060.00	20.0	Squeezed
3/28/2013	Middle Lower Canol, O...	2,023.00	2,024.00	20.0	Squeezed
2/8/2016	Basal Lower Canol, Ori...	2,015.00	2,017.00	17.5	Squeezed
2/8/2016	Basal Lower Canol, Ori...	2,015.00	2,017.00	17.5	Squeezed
3/28/2013	Upper Lower Canol, Or...	1,993.00	1,994.00	20.0	Squeezed
2/14/2016	Upper Lower Canol, Or...	1,938.00	1,940.00	17.5	Squeezed
2/14/2016	Upper Lower Canol, Or...	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	Squeezed
2/20/2016	Imperial , Original Hole	1,623.00	1,625.00	17.5	Squeezed
2/22/2016	Imperial , Original Hole	1,170.50	1,173.50	17.5	Squeezed