

November 11, 2020



Office of the Regulator of Oil and Gas Operations
Government of the Northwest Territories
4th Floor Northwest Tower
5201 – 50th Avenue
Yellowknife NT X1A 3S9

Sent via email only to: OROGO@gov.nt.ca

RE: Application for an Operations Authorization (OA-2019-001-OBS)

Dear Ms. de Jong,

Obsidian Energy Ltd (“Obsidian”, “we”) is in receipt of OROGO’s Decision Letter dated November 2, 2020 related to the Schedule for Abandonment and Amount of Proof of Financial Responsibility - North Liard C-31A and Fort Liard K-32 Wells (OA-2019-001-OBS). Our responses to your inquiries (quoted herein with *italicization*) are outlined below.

Schedule for Abandonment of the C-31A Wellbore

Obsidian should not be totally reliant on CNRL for access in order to meet its obligation to abandon the North Liard C-31A well by April 1, 2021. Obsidian should put in place contingency plans to construct an access across the Liard River independently of CNRL.

Obsidian acknowledges OROGO’s recommendation to prepare a contingency plan to construct an access across the Liard River independent of actions taken by CNRL. In parallel with these efforts, we remain in contact with CNRL and understand that their plans are being finalized in the near future.

If Obsidian is unable to complete the abandonment of the North Liard C-31A well by April 1, 2021, it must notify OROGO of the situation and submit an updated abandonment program to OROGO for consideration. The updated abandonment program must address changes to the timing, scope and equipment that will be used to complete the well abandonment in the summer.

If Obsidian is unable to complete the abandonment by April 1, 2021, Obsidian will notify OROGO immediately and submit an updated abandonment program to OROGO for consideration as requested. Summer access and abandonment logistics are being reviewed as a contingency in the unlikely event that the work cannot be completed by April 1st. It is likely that, in this scenario, barges would be proposed to transport equipment across the Liard River en route to the C-31A location.

A summer operation for the abandonment of the North Liard C-31A well will not be considered by OROGO until Obsidian has demonstrated that it has made every reasonable effort to gain approval to enter the Northwest Territories through ProtectNWT and provided detailed information on development of access to this well site independent of CNRL.

Obsidian will make all reasonable efforts to obtain approval to enter the NWT through ProtectNWT and the GNWT's Office of the Chief Public Health Officer prior to proceeding with winter or summer work in the Territory. To this end, Obsidian intends to submit our plan to CPHO for approval prior to November 30, 2020 and will provide copies to OROGO as requested. If an extension is required to the November 30 deadline, Obsidian will notify OROGO of the request and proposed submission date.

Water wells near the North Liard C-31A Wellbore as part of the OA

In Information Requests No. 4 and 6, OROGO requested that Obsidian provide documentation on the purpose and depth of the two water wells identified for abandonment in its OA application. Obsidian did not provide sufficient information to determine if these water wells meet the definition of a "well" in the Oil and Gas Operations Act (OGOA).

Obsidian must therefore submit applications to Alter the Condition of a Well for abandonment of the two water wells on or before 4:00 pm on November 30, 2020 by email at orogo@gov.nt.ca.

Obsidian has located C-31A construction/drilling daily reports that indicate the wells were used as water sources for camp and drilling purposes (see attached). The reports indicate use, depth, and groundwater productivity data that do not meet the definition of a "well" per our interpretation of Section 1 of the *Oil and Gas Operations Act*. Despite this, Obsidian will field verify the condition/status of the wells condition and water well casing depth during the next site visit and provide an update to OROGO.

If the water wells are planned to be used for camp or drilling activities, Obsidian will ensure the proper water licensing approvals are in place.

Rationale to support Obsidian's request to amend the Proof of Financial Responsibility ("PFR")

On September 18, 2020, OROGO requested detailed information to reconsider the determined amount of PFR required in Information Request No. 10.1. Obsidian's response on October 20, 2020 to IR 10.1 did not fully address the following questions:

1) For the C-31 well site, please clarify the following:

- whether the third party clean up would occur during the ice-free months or during the following winter season and why;*
- If the clean-up is to occur during the ice-free months, please clarify how the site would be accessed and what costs would be incurred to do so (for example, if by helicopter, estimated number of hours of flight time required); and*
- If the clean-up would occur during the following winter season, please clarify how the third party would gain access to the all-season road to the C-31 well site if the ice bridge is not in place and an estimate of the cost for such alternate access and what the construction of the 80 m access road from the all-season road to the C-31 well site would cost (cost per km).*

The third party clean up would occur during the ice-free months in order to ensure prompt spill cleanup. The site would be accessed via helicopter, ATV, and small boat for personnel. Please see the attached third-party cost summary to access the C-31A well.

2) For the K-32 well site, please clarify the following:

- whether the third party clean up would occur during the ice-free months or during the following winter season and why;*
- If the clean-up would occur during the ice-free months, please clarify how the site would be accessed and what costs would be incurred to do so (for example, if by helicopter, estimated number of hours of flight time required);*
- If the clean-up would occur during the following winter season, please clarify what the construction of the total winter road from Fort Liard to the K-32 well site would cost, in the event that this road is not constructed by the company to which it is permitted (total length of the winter road from Fort Liard to the K-32 well site and cost per km); and*
- Please clarify how the third party would gain access to the K-32 well site if the winter road is not available and an estimate of the cost for such alternate access; and a detailed cost estimate for the construction of the 4.7 km access road from the winter road to the K-32 well site (cost per km).*

The third party clean up would occur during the ice-free months in order to ensure prompt spill cleanup. The site would be accessed via helicopter. Please see the attached third-party cost summary to access to the K-32 well.

In order to support the amount of PFR for OA-2019-001-OBS as proposed, Obsidian Energy has engaged SWAT Consulting Inc., a recognized and qualified remediation company, to provide a detailed estimate (summarized in Table 1, below). As a result of this review, our cost estimates have been amended from the original sent February 7, 2020 for third party access to both K-32 and C-31A.

Table 1: Cost Summary as Provided by SWAT Consulting Inc.

Activity	K-32 (30L Spill)	C-31A (500L Spill)
Crew Mobilization & Accommodations	\$0	\$5,000
Access	\$9,577	\$16,136
Clean-Up Costs (spill removal, sampling)	\$5,000	\$10,000
<i>Sub Total</i>	<i>\$14,577</i>	<i>\$31,136</i>
TOTAL for Both Wells	\$45,712	

Our proposed PFR amount of \$100,000 provides significant contingency beyond the estimated costs provided by SWAT Consulting associated with a spill response effort. Therefore, Obsidian believes we have appropriately justified our Proof of Financial Responsibility estimate and respectfully request that OROGO amend the amount of the irrevocable Letter of Credit to \$100,000. Upon approval, Obsidian will ensure delivery of same within one calendar week.

Should you have any questions or wish to discuss further, please contact me directly at (403) 539-6302 at any time.

Respectfully,
OBSIDIAN ENERGY LTD.

Aaron Smith, P.Eng.
 Senior Vice President, Development & Operations

Attachments

- K-32 and C-31A Spill Access Cost Estimate SWAT Consulting Inc.
- C-31A Water Well Notes Drilling/Construction

Obsidian Energy Ltd.
 Spill Access Cost Estimate - Mobilization out of Fort Liard, NWT
 C-31 Well
 November 5, 2020



SITE ACCESS - Mobilization From Fort Liard, NWT					
Title/Item	Quantity	Unit	Rate	Company	Amount
Project Coordinator	12	hrs	\$ 97.00	Contractor	\$ 1,164.00
Intermediate Scientist III	12	hrs	\$ 97.00	Contractor	\$ 1,164.00
Subsistence (x3 staff)	1	nights	\$ 900.00	Contractor	\$ 900.00
4x4 Crew Truck (200 km min)	500	km	\$ 0.98	Contractor	\$ 490.00
Field Communications & Admin Supplies	1	days	\$ 50.00	Contractor	\$ 50.00
Field Equipment & Supplies	1	days	\$ 100.00	Contractor	\$ 100.00
Response Vessel	1	days	\$ 1,020.00	Contractor	\$ 1,020.00
Helicopter To and From Site - Sling in Equipment	3	hrs	\$ 2,472.50	Contractor	\$ 7,417.50
Tote Bags	20	unit	\$ 87.00	Contractor	\$ 1,740.00
Operator	12	hrs	\$ 65.00	Contractor	\$ 780.00
Operator Service Truck	1	day	\$ 250.00	Contractor	\$ 250.00
300.9D Mini Excavator	1	day	\$ 750.00	Contractor	\$ 750.00
ATV (x2)	1	days	\$ 310.00	Contractor	\$ 310.00
Subtotal					\$ 16,135.50
Estimated Total Project Cost					\$ 16,135.50

Notes:

G.S.T. has not been included in the above costs.

All third party disbursements will be discussed with applicable parties before proceeding.

This cost estimate takes into consideration equipment and personnel are based in Fort Liard NWT. The Helicopter is based in Fort Simpson NWT.

The cost estimate factors in Mobilization of equipment to site.

If scope of work changes during the execution of the work, Obsidian Energy Ltd. will be notified before proceeding.



SITE ACCESS - Mobilization From Fort Nelson, BC					
Title/Item	Quantity	Unit	Rate	Company	Amount
Project Coordinator	8	hrs	\$ 97.00	Contractor	\$ 776.00
Intermediate Scientist III	8	hrs	\$ 97.00	Contractor	\$ 776.00
4x4 Crew Truck (200 km min)	200	km	\$ 0.98	Contractor	\$ 196.00
Field Communications & Admin Supplies	1	days	\$ 50.00	Contractor	\$ 50.00
Field Equipment & Supplies	1	days	\$ 100.00	Contractor	\$ 100.00
Helicopter To and From Site - Transport Personnel	3	hrs	\$ 2,472.50	Contractor	\$ 7,417.50
Tote Bags	3	unit	\$ 87.00	Contractor	\$ 261.00
Subtotal					\$ 9,576.50
Estimated Total Project Cost					\$ 9,576.50

Notes:

G.S.T. has not been included in the above costs.

All third party disbursements will be discussed with applicable parties before proceeding.

This cost estimate takes into consideration equipment and personnel are based in Fort Nelson, BC.

The cost estimate factors in Mobilization of equipment to site.

If scope of work changes during the execution of the work, Obsidian Energy Ltd. will be notified before proceeding.

PAJAK ENGINEERING LTD.

DAILY LEASE CONSTRUCTION, CLEANUP/RIG MOVING REPORT

LSD C-31
 Date June 19, 2000 Weather Sunny & Warm Temperature +20
 Operator CANADIAN FOREST OIL LTD. Days on Job 28
 Project Name CDN FOREST ET AL NORTH LIARD C-31 Supervisor Harold Pearson
 Activity Scouting. Contractor Beaver Enterprises

WELL FILL
COPY

EQUIPMENT WORKING

CATS				TRUCKS			
	HRS	RATE	TOTAL		HRS	RATE	TOTAL
Total				Total			

OTHER EQUIPMENT				PERSONNEL OR WORK CREWS			
	HRS	RATE	TOTAL		HRS	RATE	TOTAL
Total				Total			

Mobile Number 403-357-9381	Supervisory Daily Costs \$ 585	Vehicle Type 4 x 4 Pickup	Kilometres 100 km
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Daily Cost \$ 585 Cum Cost \$ 19,902

REMARKS
 MET WITH KENT HALVORSON, LAND USE OFFICER, HE DID NOT HAVE ANY NEW INFORMATION TO GIVE US ABOUT THE APPLICATIONS. GAVE HIM SOME CANADIAN FOREST OIL HATS, ETC., THESE WERE THE FIRST THINGS HE GOT FROM FOREST OIL.
 TRAVELLED WITH ANDREW UP TO K-29, CHEVRON IS DRIVING PILES FOR THE NEW BRIDGE. THEY THINK THEY WILL BE DONE IN 4-5 DAYS.
 RANGER IS FINISHING UP THEIR ROAD, THE MOXI IS DONE, AND THEY ARE CLEANING UP THE BORROW PITS NOW. THE CANDIDATES ARE CAMPAIGNING TONIGHT FOR BANK ELECTION ON TUESDAY, JUNE 20, 2000.
 ANDERSON WATER WELL DRILLING WILL HAVE A RIG IN THE AREA ON ± JULY 1ST. THE CHEVRON WATER WELL AT K-29 HAS HAD PROBLEMS AND WAS CEMENTED TO SURFACE. WILL USE THE WATER WELL RIG TO INSTALL A WELL AT QUARRYING PIT. WILL CONFIRM THIS WITH KENT HALVORSON.
 WILL CHECK WITH CHEVRON TO SEE IF THEY HAVE ATTEMPTED A WATER WELL ON THE K-29 CAMPSITE.
 WILL WORK ON DIMENSIONS AND MAP FOR THE REQUESTED "OFFICIAL NOTIFICATION" BY CHEVRON.

PAJAK ENGINEERING LTD.

DAILY LEASE CONSTRUCTION, CLEANUP/RIG MOVING REPORT

LSD C-31
 Date June 18, 2000 Weather Sunny & Warm Temperature +18
 Operator CANADIAN FOREST OIL LTD. Days on Job 27
 Project Name CDN FOREST ET AL NORTH LIARD C-31 Supervisor Harold Pearson
 Activity Scouting.
 Contractor Beaver Enterprises

EQUIPMENT WORKING

CATS	HRS	RATE	TOTAL	TRUCKS	HRS	RATE	TOTAL
Total				Total			

OTHER EQUIPMENT

PERSONNEL OR WORK CREWS

Total				Total			

ALL FILE COPY

Mobile Number 403-357-9381	Supervisory Daily Costs \$ 585	Vehicle Type 4 x 4 Pickup	Kilometres 100 km
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Daily Cost \$ 585 Cum Cost \$ 19,317

REMARKS

TALKED TO ANDERSON WATER WELL DRILLING. THEY CEMENTED THE WATER WELL AT K-29. THEY HAD PUMP TROUBLES AND ENDED UP LEAVING EVERYTHING DOWN THE WELL. THE WELL WAS 130 FEET DEEP AND PUT OUT 30-40 GALLONS PER MINUTE, THEY THINK WE COULD GET THE SAME WELL AT THE ROCK QUARRY. ANDERSON IS COMING IN TO M-25 ON THE 1ST OF JULY TO DRILL A WELL. WE COULD GET THEM TO DRILL ONE FOR US.
 CHEVRON PUT IN A PICKUP BYPASS ON THE BRIDGE 1 KM SOUTH OF K-29 CAMPSITE, THEY ESTIMATE ABOUT 1 WEEK TO CHANGE OUT THE BRIDGE. THIS IS THE ONLY BRIDGE THEY ARE GOING TO WORK ON.

PAJAK ENGINEERING LTD.

DAILY LEASE CONSTRUCTION, CLEANUP/RIG MOVING REPORT

LSD C-31
 Date June 22, 2000 Weather Cloudy & Rain Temperature + 14
 Operator CANADIAN FOREST OIL LTD. Days on Job 31
 Project Name CDN FOREST ET AL NORTH LIARD C-31 Supervisor Harold Pearson
 Activity Scouting.
 Contractor Beaver Enterprises

EQUIPMENT WORKING

CATS				TRUCKS			
CATS	HRS	RATE	TOTAL	TRUCKS	HRS	RATE	TOTAL
Total				Total			

OTHER EQUIPMENT				PERSONNEL OR WORK CREWS			
OTHER EQUIPMENT	HRS	RATE	TOTAL	PERSONNEL OR WORK CREWS	HRS	RATE	TOTAL
Total				Total			
Mobile Number 403-357-9381		Supervisory Daily Costs \$ 585		Vehicle Type 4 x 4 Pickup		Kilometres 100 km	

Daily Cost \$ 585 Cum Cost \$ 21,657

REMARKS

IT RAINED HARD ALL MORNING, MAKING IT IMPOSSIBLE TO GO OUT IN THE FIELD.
 MET WITH PAUL, CONSTRUCTION SUPERVISOR FROM RANGER, HE SIGNED OFF THE CAMP EFFECTIVE JUNE 24, 2000 FROM BEAVER.
 PHONED KENT HALVORSON, DIAND LAND USE INSPECTOR, HE SAID IT WAS OK TO PUT A WATER WELL ON OUR QUARRY SITE OR WHEREVER WE HAD TO IN ORDER TO GET WATER.
 MET JUDY KOTCHEA AND CONGRATULATED HER ON BECOMING THE NEW CHIEF.
 PHONED ANDERSON WATER WELL DRILLING, THEY SAID THEY TRIED 3 WELLS AT K-29 BUT WERE UNSUCCESSFUL. HE IS GOING TO KEEP IN CONTACT WITH US AND CO-ORDINATE THE DRILLING OF OUR WELLS AND CHEVRON'S.
 THE BEST VEHICLE TIRES TO RUN UP HERE ARE HANKOOK 10-12 PLY MUD TREAD, BEAVER HAS HAD THE BEST LUCK WITH THEM ON ALL THEIR PICKUPS AND CREW CABS.

PAJAK ENGINEERING LTD.

DAILY LEASE CONSTRUCTION, CLEANUP/RIG MOVING REPORT

LSD C-31
 Date July 6, 2000 Weather Cloudy & Windy Temperature +20
 Operator CANADIAN FOREST OIL LTD. Days on Job 36
 Project Name CDN FOREST ET AL NORTH LIARD C-31 Supervisor Harold Pearson
 Activity Meetings and travel.
 Contractor Beaver Enterprises

EQUIPMENT WORKING

CATS				TRUCKS			
	HRS	RATE	TOTAL		HRS	RATE	TOTAL
Total				Total			

OTHER EQUIPMENT				PERSONNEL OR WORK CREWS			
	HRS	RATE	TOTAL		HRS	RATE	TOTAL
Total				Total			

Mobile Number 403-357-9381	Supervisory Daily Costs \$ 640	Vehicle Type 4 x 4 Pickup	Kilometres 692 km
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Daily Cost \$ 640

Cum Cast \$ 26,771

REMARKS

DROVE FROM FORT ST. JOHN TO FORT LIARD, NWT.
 HAD A MEETING WITH DON ANTOINE, HE WANTED TO KNOW ABOUT JOB START UP TIME. HE IS STILL THE EMPLOYMENT COORDINATOR WITH THE BAND AND HE WANTED TO KNOW WHAT TO TELL THE MEN THAT ARE WAITING TO GO TO WORK.
 TALKED TO BRYAN, DIAND LAND USE OFFICER, HE LOOKED AT THE ROAD AND QUARRY SITE AND COULD NOT SEE ANY PROBLEMS FROM THE WATER WELL DRILLED BY ANDERSON WATER WELL DRILLING.
 TALKED TO DAVE CALDWELL, CAMP MANAGER, EVERYTHING IS OK WITH THE CAMP, HE WOULD LIKE TO SUPPLY US WITH WELLSITE TRAILERS.
 I WILL GO ACROSS ON THE BARGE TOMORROW AND SEE JESSE CORBET WITH CHEVRON AND CHECK ON EVERYTHING ALONG THE ACCESS ROAD UP TO C-31 WELLSITE.

WELL FILE COPY

PAJAK ENGINEERING LTD.

DAILY LEASE CONSTRUCTION, CLEANUP/RIG MOVING REPORT

'SD C-31
 Date August 2, 2000 Weather Cloudy & Showers Temperature +20
 Operator CANADIAN FOREST OIL LTD. Days on Job 63
 Project Name CDN FOREST ET AL NORTH LIARD C-31 Supervisor Harold Pearson
 Activity Rig up, repair road, dig sump.
 Contractor Beaver Enterprises

EQUIPMENT WORKING

CATS	HRS	RATE	TOTAL	TRUCKS	HRS	RATE	TOTAL
D65PX	5	130	650				
D8R	7	200	1400				
250 Loader	10	72	720				
140G	6	102	612				
PC270	4	155	620				
300 Hoe	10	170	1700				
Volvo	4	170	680				
Moxie	7.5	150	1125				
D6M	10	130	1300				
Total			8807	Total			

OTHER EQUIPMENT

PERSONNEL OR WORK CREWS

Fuel Truck	4	85	340	Foreman			600
Crew Truck	10	25	250	Labourers	3	40	120
416 Hoe	14.5	85	1232.5	Travel Time	3.5	40	140
Chainsaw	1	30	30	Standby	6	40	240
Total			1852.5	Total			1100
Mobile Number 403-357-9381		Supervisory Daily Costs \$ 725		Vehicle Type	4 x 4 Pickup		
				Kilometres	100 km		

Daily Cost \$ 12,485

Cum Cost \$ 349,923

REMARKS

FINISHED DIGGING THE REMOTE SUMP. DUG OUT SOFT SPOTS ON THE LEASE AND HAULED IN SHALE ROCK. TALKED TO CHEVRON, THEIR BIG LOADS ARE ON TIME, BUT DUE TO RAIN THEY MIGHT HOLD THEM AT BASE CAMP. THE GRADER WORKED ON THE ROAD, IT IS GETTING IN GOOD CONDITION AGAIN. MET WITH DAN FROM LAND USE AND RICK TURNER FROM THE NEB. DAN WANTS US TO PULL THE DIRT BACK FROM THE CREEK AND RICK WANTS US TO OPEN ALL THE SHUTTERS ON THE SHACKS. RON IS GOING TO CHECK WITH CNRL FOR PERMISSION TO PROCEED WITH REMOVING THE DIRT FROM THE CREEK. THE D6 HAS THE LEASE LOOKING GOOD. THE HOE HAS FINISHED DIGGING THE DRAINAGE DITCHES AROUND THE LEASE. ANDERSON WATER WELL DRILLING DRILLED A WATER WELL AND GOT WATER ON THE LEASE AT THE 100 FT. DEPTH. APPROXIMATELY 60 GALLONS PER MINUTE. IT IS A GOOD WELL.

PAJAK ENGINEERING LTD.

DAILY LEASE CONSTRUCTION, CLEANUP/RIG MOVING REPORT

LSD C-31
 Date August 4, 2000 Weather Clear & Calm Temperature +28
 Operator CANADIAN FOREST OIL LTD. Days on Job 65
 Project Name CDN FOREST ET AL NORTH LIARD C-31 Supervisor Harold Pearson
 Activity Dig water pit and solids pit. Blade up road.
 Contractor Beaver Enterprises

EQUIPMENT WORKING

CATS	HRS	RATE	TOTAL	TRUCKS	HRS	RATE	TOTAL
D65PX	4	130	520				
D8R	4	200	800				
180 Loader	12	60	720				
140G	7	102	714				
PC270	10	155	1550				
300 Hoe	10	170	1700				
Volvo	8	170	1360				
Moxie	4	150	600				
D6M	10	130	1300				
Total			9264	Total			

OTHER EQUIPMENT

PERSONNEL OR WORK CREWS

Fuel Truck	4	85	340	Foreman			600
Crew Truck	10	25	250	Labourers	2	40	80
Chainsaw	1	30	30	Travel Time	2.5	40	100
				4 Inch Pump	1	110	110
Total			620	Total			890

Mobile Number 403-357-9381	Supervisory Daily Costs \$ 725	Vehicle Type 4 x 4 Pickup	Kilometres 100 km
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Daily Cost \$ 11,499

Cum Cost \$ 372,199

REMARKS

FINISHED DIGGING SOLIDS PIT AND SPREAD THE MATERIAL ON SOFT SPOTS ON THE LEASE. CONSTRUCTED A 3 FOOT BERM AROUND THE PIT. CLEANED OUT DITCHES ON THE CNRL ROAD AND TRIMMED THE GRADE. TALKED TO CNRL AND RECEIVED APPROVAL TO CLEAN UP AROUND THE BRIDGE BY THE ROCK QUARRY. TALKED TO CHEVRON AND THEY GOT THEIR HEAVY LOADS INTO M-25, SO THE ROAD IS CLEAR EXCEPT FOR LEGAL LOADS WHICH WILL BE COMING AT RANDOM. ANDERSON WATER WELL DRILLING GOT WATER AT CAMP AT 180 FEET AT 8-9 GALLONS PER MINUTE. THEY ARE DRILLING A SECOND WELL ON THE LEASE FOR THE SHACKS. THE TWO WAY RADIOS ARE INSTALLED AND ARE WORKING VERY WELL.