Version: February 9, 2017

NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

WELL INSPECTION REPORT

INSTRUCTIONS:

1. Complete both pages.
2. Send one electronic copy of this form and supporting technical documentation by email to orogo@gov.nt.ca.
3. Send one signed hard copy of this form and supporting technical documentation by courier to:
   Chief Conservation Officer
   Office of the Regulator of Oil and Gas Operations
   4th floor Northwest Tower
   5201 50th Avenue
   Yellowknife NT X1A 3S9

WELL INFORMATION

Well Name:	Paramount et al Liard C-02		
Coordinates: *(verify onsite)*	Lat: 60 ° 31 ' 12 "	Long:	123 ° 01 ' 10 "
	Datum: NAD83		
Well Operator:	Paramount Resources Ltd	Status:	Suspended
Current Inspection Date:	20200929	WID:	1857
Previous Inspection Date:	20180712	Completed in H_2S zone?	No; % of H_2S:

EVALUATION

Site

Accessible for inspection and monitoring?	Yes; Via helicopter
Equipment or debris on site?	No;
Additional clean up required?	No;
Any environmental or safety concerns? (see Note 1)	No;
Number of photos attached? (required)	0 (wellhead, valves, signage and site area, other)

Wellhead

Wellhead accessible for inspection and monitoring?	Yes;
Brush cleared 10m around wellhead?	Select
Visible well marker in place?	Yes; Wellhead sign
Wellhead chained and locked?	Yes; Combination 6020
Pumpjack secure?	Select N/A
Wellhead valves operate freely?	Yes;
Surface casing vent open?	Yes;
Pressure test well head seal assembly?	No;
Pressure rating of all components:	35000 kPa
Wellhead schematic attached? (required)	No;

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OROGO use only

The details of this document have been examined and verified by:

Job Designation _____

Well Identifier _____

Signature _____
Approval Authority

Unique Well Identifier 30_/ ____ ___-___ ___-___ /__
(eg.300 / A01 60-00 120-00 / 0)

Date _____

Paramount et al Liard C-02 - 20200929

Gas Migration Test

Well Name: Paramount et al West Arrowhead C-02 **WID: 1857**

Date: 20200929

A sweep for fugitive methane was performed on the subject well and surrounding area to check for the presence of gas migration due to leakage around the well casing.

The sweep was performed with a Hetek DP-IR Methane Gas Leak Detector P/N 102389-1 S/N 9101619015. The unit was las calibrated 2020/07/08 and performs a daily self-calibration. It is sensitive to 1 ppm.

Observations:

A self-test of the instrument was performed prior to taking readings.
Winds were calm

Ground conditions were dry except for immediately around the well (see below).

Background levels were 0-1ppm CH4 at 50 m from the wellhead (in all 4 compass directions).

At 1m and 0.2 m from the wellhead readings were 0-1 ppm CH4.

For comparison, absolute CH4 levels of methane measured at Environment Canada's Monitoring Stations LLB 06C0 (Lac La Biche – the closest location) were +/- 2 ppm in 2010 (the latest available data).[1] Global averages in 2020 were similar (1.9ppm) NOAA[2] https://www.esrl.noaa.gov/gmd/ccgg/trends_ch4/

Note:

Subsidence has resulted in water ponding 4m diameter by 20cm deep.
No bubbles were visible in the standing water.

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[1] https://www.esrl.noaa.gov/gmd/ccgg/carbontracker-ch4/ch4timeseries.php?site=LLB_06C0&year=all#imagetable

[2] https://www.esrl.noaa.gov/gmd/ccgg/trends_ch4/