Appendix F-3

Reportable spills and follow up reports









OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | REPORT DATE: MONTH – DAY – YEAR 1-31-2018   |  |   |   | ME   |   | XORIGINAL SPILL REPORT,                    |                                  |                                   |
|------|---|--|---|---|--|---|--|----------------------------------|-----------------------------------|
|      | 1-31-2018 OCCURRENCE DATE: MONTH  | DAY VEAD   |   | 8:00  | NCE TIME                                       |   | OR   |                                  | REPORT NUMBER                     |
| В    | 1-31-2018   | I – DAY – YEAR   |   | 5:00  | NOE HIVIE                                      |   | O UPDATE #TO THE ORIGINAL SP               | ILL REPORT                       | 18 - 027                          |
| С    | LAND USE PERMIT NUMBER KVPL11D01  | (IF APPLICABLE)  |   |   | ATER LICENCE  AM-MEI                           |   | (IF APPLICABLE)                            |                                  |                                   |
| D    | GEOGRAPHIC PLACE NAME ( Meliadine Gold P  |  | N FROM NAMED LOCA   | ATION   | REGION   |   |  |                                  |                                   |
|      | LATITUDE  | 10,000   |   | 110   | NWT<br>ONGITUDE                                | <b>X</b> NUNAVL                                     | JT   | JRISDICTION                      | OR OCEAN                          |
| Е    | DEGREES 63  | MINUTES 2  | SECONDS 23  |   | EGREES 9                                       | 2   | MINUTES 13                                 | 3 SE                             | ECONDS 34                         |
| F    | RESPONSIBLE PARTY OR VE Agnico Eagle Mir  |  | RESPONSIBLE PAR   |   |  |   | on<br>ut, X0C 0G0                          |                                  |                                   |
| G    | ANY CONTRACTOR INVOLVED  None   |  | CONTRACTOR ADD  |   |  |   | ut, 7.00 000                               |                                  |                                   |
|      | PRODUCT SPILLED   |  | QUANTITY IN LITRE   | ES, KILOC   | GRAMS OR CL                                    | JBIC METRE  | ES U.N. NUMBER                             |                                  |                                   |
| Н    | Sewage  |  | ~500 L  |   |  |   |  |                                  |                                   |
| ' '  | SECOND PRODUCT SPILLED  None  | (IF APPLICABLE)  | QUANTITY IN LITRE   | ES, KILOC   | GRAMS OR CL                                    | JBIC METRE  | NA U.N. NUMBER                             |                                  |                                   |
| I    | SPILL SOURCE  Lift station  |  | SPILL CAUSE <b>Equipment</b>  | failu   | re   |   | AREA OF CONTA  10 m2                       | MINATION IN                      | SQUARE METRES                     |
| J    | FACTORS AFFECTING SPILL C   | OR RECOVERY  | DESCRIBE ANY ASS  | SISTANC   | E REQUIRED                                     |   | HAZARDS TO PE                              | RSONS, PROF                      | PERTY OR EQUIPMENT                |
| K    | was immediately a leak from a rubbeing replaced wimmediately around A follow-up reports | :00, a leak from the reported to the Siber joint was the sith a mechanical jund the lift station. It will be submitted for Environment - Il Technician - Justin 1907   Justin 1908   Jus | ite Services a<br>source of the<br>oint. Due to t<br>. The impacte<br>d within 30 d<br>Jessica Huza | and E<br>spill<br>the exect are<br>ays.<br>a: Ext | nvironm<br>. The lift<br>ktreme c<br>ea is min | ent de <sub>l</sub><br>statior<br>old we<br>imal ar | partments. It was shutdow<br>ther, the sev | was dete<br>wn and t<br>wage fro | ermined that<br>he joint is<br>ze |
| L    | REPORTED TO SPILL LINE BY  Jessica Huza   | POSITION  General Superior   |   | IPLOYER   | o Eagle  |   | LOCATION CALLING F Meliadine Pr            | I .                              | ELEPHONE<br>8197593555            |
| М    | ANY ALTERNATE CONTACT  Justin MacMillan   | POSITION Sr. Env Techi   | EM  | IPLOYER   |  |   | ALTERNATE CONTACT  Meliadine Pr            | - A                              | LTERNATE TELEPHONE 8197593555     |
|      |   |  | REPORT LINE U   |   |  |   |  |                                  |                                   |
| N.   | RECEIVED AT SPILL LINE BY   | POSITION   | EM  | IPLOYER   | 1  |   | LOCATION CALLED                            | R                                | EPORT LINE NUMBER                 |
| Ν    |   | STATION OPERATOR   |   |   |  |   | YELLOWKNIFE, NT                            | 3)                               | 367) 920-8130                     |
| LEA  | AGENCY DEC DCCG D   | GNWT 0 GN 0 ILA 0 INAC   | D NEB D TC  | SIGNIFI   | ICANCE [] MI                                   | NOR I MA  | JOR   UNKNOWN                              | FILE STATU                       | JS [] OPEN [] CLOSED              |
| AGE  | NCY   | CONTACT NAME   |   | CONTAC  | CTTIME   |   | REMARKS                                    |                                  |                                   |
| LEA  | ) AGENCY  |  |   |   |  |   |  |                                  |                                   |
| FIRS | T SUPPORT AGENCY  |  |   |   |  |   |  |                                  |                                   |
| SEC  | OND SUPPORT AGENCY  |  |   |   |  |   |  |                                  |                                   |
|      |   |  |   |   |  |   |  |                                  |                                   |



# Follow Up Report – January 31st 2018 Sewage Spill #18-027

### **Description of Spill:**

On January 31st, a sewage spill occurred at a lift station by the Meliadine main camp STP. At approximately 15:00, a leak from the discharge pipe of a lift station was noticed by personnel and was immediately reported to the Site Services and Environment departments. It was determined that a leak from a rubber joint was the source of the spill. The lift station was shut down and the joint replaced with a mechanical joint. Due to the extreme cold weather, the sewage froze immediately around the lift station. Approximately 500L of sewage was spilt. The impacted area is minimal and did not reach any water bodies.

## **Spill Location:**

The spill occurred at the Meliadine main camp sewage treatment plant. The fluid flowed from the lift station, pasted the sewage treatment plant, and ceased flowing approximately 20m from the source. The spill covered an area of approximately 10m<sup>2</sup>.



Figure 1: View from above - Main Camp: Location of lift station piping (source of leak) and spill area.

## Spill cause:

A rubber joint on the sewage treatment plant piping failed. The equipment failure was likely due to the material fatiguing in frigid temperatures.

## **Spill response:**

The spill froze to the immediate area and was excavated and disposed of appropriately. The joint has been replaced with a mechanical joint made of more suitable material. A third party review of the system was completed and recommendations have been provided to Agnico Eagle for implementation in order to improve the performance of the STP.





# **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | REPORT DATE: MONTH – DAY – YEAR                                   |                |                            | REP    | ORT TIM  | ΙΕ                   | □ C<br>OR | RIGINAL SPILL REPOI              | RT,      | REPORT NUMBER      |
|------|---|----------------|----------------------------|--------|----------|----------------------|-----------|----------------------------------|----------|--------------------|
| В    | OCCURRENCE DATE: MONTH  | I – DAY – YEAF | 3                          | occ    | URREN    | CE TIME              | _         | PDATE #<br>THE ORIGINAL SPILL F  | REPORT   | <del>-</del>       |
| С    | LAND USE PERMIT NUMBER (  | (IF APPLICABL  | E)                         | ı      | WA       | TER LICENCE NUMBER   | R (IF A   | APPLICABLE)                      |          |                    |
| D    | GEOGRAPHIC PLACE NAME (   | OR DISTANCE    | AND DIRECTION FROM NAMED L | OCAT   | ION      | REGION  NWT NUNAVU   | JT        | ☐ ADJACENT JURISDICTION OR OCEAN |          |                    |
| Е    | LATITUDE  |                |                            |        | LO       | NGITUDE              |           |                                  |          |                    |
| _    | DEGREES   | MINUTES        | SECONDS                    | DA DT  |          | GREES                | ION       | MINUTES                          | SI       | ECONDS             |
| F    | RESPONSIBLE PARTY OR VE   |                |                            |        |          | ESS OR OFFICE LOCATI | ION       |                                  |          |                    |
| G    | ANY CONTRACTOR INVOLVED   | 0              | CONTRACTOR                 | ADDR   | ESS OR   | OFFICE LOCATION      |           |                                  |          |                    |
|      | PRODUCT SPILLED   |                | QUANTITY IN LI             | TRES   | , KILOGI | RAMS OR CUBIC METRI  | ES        | U.N. NUMBER                      |          |                    |
| Н    | SECOND PRODUCT SPILLED (IF APPLICABLE)  QUANTITY IN LITRES, KILOG |                |                            |        |          | RAMS OR CUBIC METRE  | ES        | U.N. NUMBER                      |          |                    |
| Ι    | SPILL SOURCE  |                | SPILL CAUSE                |        |          |                      |           | AREA OF CONTAMINA                | ATION IN | SQUARE METRES      |
| J    | FACTORS AFFECTING SPILL (   | OR RECOVER     | Y DESCRIBE ANY             | ' ASSI | STANCE   | REQUIRED             |           | HAZARDS TO PERSO                 | NS, PRO  | PERTY OR EQUIPMENT |
| K    |   |                |                            |        |          |                      |           |                                  |          |                    |
| L    | REPORTED TO SPILL LINE BY   | POSITIO        | ON                         | EMP    | LOYER    |                      | LOC       | CATION CALLING FROM              | Т        | ELEPHONE           |
| M    | ANY ALTERNATE CONTACT   | POSITIO        | DN                         | EMP    | LOYER    |                      |           | ERNATE CONTACT                   | A        | LTERNATE TELEPHONE |
|      |   |                | REPORT LIN                 | E US   | E ONLY   |                      |           | -                                |          |                    |
| N I  | RECEIVED AT SPILL LINE BY   | POSITIO        | ON                         | EMP    | LOYER    |                      | LOC       | CATION CALLED                    | F        | REPORT LINE NUMBER |
| N    |   | STATIO         | N OPERATOR                 |        |          |                      | YEL       | LOWKNIFE, NT                     | (        | 367) 920-8130      |
| LEAD | AGENCY DEC DCCG DC  | GNWT □ GN      | □ ILA □ INAC □ NEB □ TC    | S      | SIGNIFIC | CANCE   MINOR   MA   | JOR       | □ UNKNOWN FI                     | LE STATU | JS □ OPEN □ CLOSED |
| AGEI | NCY   | CONTACT NA     | ME                         | (      | CONTAC   | TTIME                |           | REMARKS                          |          |                    |
|      | ) AGENCY  |                |                            |        |          |                      |           |                                  |          |                    |
|      | T SUPPORT AGENCY  OND SUPPORT AGENCY                              |                |                            |        |          |                      |           |                                  |          |                    |
|      |   |                |                            |        |          |                      |           |                                  |          |                    |
| THIR | D SUPPORT AGENCY  |                |                            |        |          |                      |           |                                  |          |                    |



# Follow Up Report – February 2<sup>nd</sup> 2018 MEL-07 Treated Water Discharge

### **Description of Exceedance:**

On February 2nd, during an inspection of the exploration camp retention tanks it was noticed by a member of the Site Services team that water was flowing on to Meliadine Lake near the discharge area of the sewage treatment plant. The environment department and site services supervisor were notified immediately and an inspection was conducted to determine the source of the water. It was discovered that a valve at the base of one of the retention tanks had been left open, resulting in the draining of the contents of all four tanks, which are connected in series. Discharge from the sewage treatment plant had been suspended since November 2017 due to exceedances.

Samples were collected from a melt channel in the ice, and sent for laboratory analysis. A spill report was issued on February 2<sup>nd</sup> 2018 through the NT-NU Spill Report. As a response to the spill report issued, Christine Wilson (INAC) visited the Meliadine Exploration Camp on February 2<sup>nd</sup> 2018, and was unable to collect a representative sample, as there was no pooling on the surface of the ice.

Jeff Tulugak (KIA) also inspected the spill area on February 2<sup>nd</sup>, 2018. A telephone inquiry was received by Craig Broom (Environment Canada) and Dan Gorton provided an account of the spill information available to date on February 5<sup>th</sup>, 2018.



Picture 1: Channel formed by release water flowing through ice into Meliadine Lake.



Picture 2: Release valve left open causing the spill.



Picture 3: Discharge hose connected to retention tank release valve.

Samples were collected from the STP release valve on February 2<sup>nd</sup>, shortly after the release occurred. The samples did not arrive at the laboratory within the recommended 24 hours timeframe for fecal coliform analysis. The delay was due to the delivery not being picked up at the airport by the receiving party. Total coliforms were expressed in MPN as opposed to CFU, which are the recommended units in the water license. Although these are not the preferred units, they can be converted.

Table 1: Laboratory analysis of retention tank treated water samples collected at spill site.

| Sample Details/Parameters  | Result       | Qualifier* | D.L. | Units                  | Extracted | Analyzed               | Batch                |
|--|--------------|------------|------|------------------------|-----------|------------------------|----------------------|
| L2052826-1 RETENTION TANK Sampled By: CLIENT on 02-FEB-18 @ 01:45            |              |            |      |                        |           |                        |                      |
| Matrix: WATER Miscellaneous Parameters Fecal Coliforms                       | 244          |            | 1    | MDN/400                |           | 05 FFD 40              | Doores 4             |
| Heterotrophic Plate Count  | 214<br>>3000 |            | 10   | MPN/100mL<br>CFU/mL    |           | 05-FEB-18<br>05-FEB-18 | R3955854<br>R3956754 |
| Total Coliform and E.coli by MPN QT97<br>Total Coliforms<br>Escherichia Coli | >2420<br>285 |            | 1    | MPN/100mL<br>MPN/100mL |           | 05-FEB-18<br>05-FEB-18 | R3955855<br>R3955855 |

Table 2: Laboratory analysis of retention tank treated water in months leading up to the event.

| Station: STP-FINAL (MEL-7)                   |           | Dece       | ember      |            |          |          | Jan      | uary      |           |           | February |           |           |  |  |
|--|-----------|------------|------------|------------|----------|----------|----------|-----------|-----------|-----------|----------|-----------|-----------|--|--|
| DATE   | 12/4/2017 | 12/12/2017 | 12/14/2017 | 12/18/2017 | 1/2/2018 | 1/4/2018 | 1/8/2018 | 1/15/2018 | 1/22/2018 | 1/29/2018 | 2/5/2018 | 2/12/2018 | 2/19/2018 |  |  |
| Ammonia as N (mg/L)                          |           |            |            |            | 4.5      | 3.3      | 7.3      | 25        | 26        | 14        | 16       | 0.05      |           |  |  |
| Biochemical Oxygen Demand                    |           |            |            |            | 12       | 11       | 6        | 5         | 9         | 4         | 9        | 13        |           |  |  |
| Kjeldahl nitrogen                            |           |            |            |            | 6        | 3.7      | 7.4      | 25        | 29        | 15        | 17       | <2        |           |  |  |
| pH   |           |            |            |            | 6.94     | 7.15     | 7.49     | 6.87      | 7.72      | 7.18      | 6.75     | 6.82      |           |  |  |
| Phosphorus (P)-Total                         |           | 1          |            |            | 8.5      | 7.8      | 6.9      | 10        | 11        | 9.5       | 10       | 9.8       |           |  |  |
| Total Suspended Solids                       |           |            |            |            | 8        | 5        | 7        | 9         | 14        | 5         | 6        | 8         |           |  |  |
| Transmitance %                               |           |            |            |            | 37       | 37       | 39       | 31        | 20        | 36        | 37       | 34        |           |  |  |
| Nitrite-N                                    |           |            |            |            | 0.359    | 0.332    | 0.522    | 0.307     | 0.173     | 0.588     | 0.372    | 0.312     |           |  |  |
| Nitrate-N                                    |           |            |            |            | 22.5     | 20.8     | 23.5     | 33.8      | 36.1      | 39.5      | 47.2     | 41.4      |           |  |  |
| Nitrate and Nitrite as N                     |           |            |            |            | 22.9     | 21.2     | 24       | 34.1      | 36.3      | 40.1      | 47.6     | 41.8      |           |  |  |
| Oil & Grease-(IR)                            |           |            |            |            | 1.9      | 0.6      | < 0.50   | 0.6       | < 0.50    | 1.8       | 0.6      | < 0.50    |           |  |  |
| Total Nitrogen (N)                           |           |            |            |            | 8        |          | - 5      |           |           | -         | -        |           |           |  |  |
| Total Chemical Oxygen Demand (COD)           |           |            |            |            | 82       | 83       | 83       | 98        | 110       | 68        | 73       | 34        |           |  |  |
| Total Dissolved Solids                       |           |            |            |            | 430      | -        | 565      | 495       | 710       | 465       | 475      | 505       |           |  |  |
| Alkalinity                                   |           |            |            |            | 36       | 54       | 74       | 41        | 320       | 47        | 27       | 37        |           |  |  |
| Atypical                                     | 950       | 30         | 170        | 180        | 66000    |          | <10      | 1020      | 530       | 10        | 330      | 5800      | 490       |  |  |
| Fecal Coliforms (CFU/100mL)                  | 20        | <2         | <2         | <10        | <10      |          | <10      | <10       | <2        | <2        | <10      | <10       | <2        |  |  |
| Heterotrophic Plate Count (AAHB) (CFU/100mL) | 4,300     | 450        | 500.00     | 209        | 21,000   |          | 360      | 1,000     | 820       | 430       | 260      | 1,330     | 560       |  |  |
| Total Coliforms (CFU/100mL)                  | 30        | 90         | 70         | 90         | <1000    |          | <10      | 200       | 10        | 10        | <10      | <100      | <10       |  |  |

The sample collected from the retention tank discharge had **214 MPN/100mL fecals** and **285 MPN/100mL E.coli.** 

## **Spill Discharge Location:**

The MEL-07 effluent discharges to land at a location situated approximately 65 m from the ordinary high water mark of Meliadine Lake (see Figure 1). Once the effluent reaches the end of the pipe, it travels along a rock channel intended to reduce the flow and prevent erosion. The effluent will then follow the rock channel to Meliadine Lake. It is expected that with the extreme cold temperatures on February 2<sup>nd</sup>, and the fact that the effluent discharges to land first, the bacteria would likely not have survived.



Figure 1: View from above - MEL-07 discharge configuration with rock channel and flow path to Meliadine Lake

## Spill cause:

Investigation into the release was inconclusive. However, it is believed that a water truck operator failed to close the release valve after transferring water to a truck.

## **Spill response:**

The release was deemed to be caused by human error. The release valve is now fitted with a locking mechanism. A supervisor now keeps a register to record which operator is in possession of the key.

Dan Gorton, Environmental Coordinator, AEM





REPORT DATE: MONTH - DAY - YEAR

# **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

REPORT TIME

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| A    | 02-19-2018   |  |  | 17:00   |  | <b>IX</b> OR                         | ORIGINAL SPILL REPORT,   |                           | REPORT NUMBER   |
|------|--|--|--|---|--|--------------------------------------|--|---------------------------|---|
| В    | OCCURRENCE DATE: MONTH –   | - DAY – YEAR   |  | OCCURRE<br>16:45                                  | ENCE TIME  |                                      | JPDATE #<br>THE ORIGINAL SPILL REP   | ORT                       | 18 - 047  |
|      | LAND USE PERMIT NUMBER (IF   | F APPLICABLE)  |  | ,   | WATER LICENCE  2AM-MEL   | •                                    | APPLICABLE)  |                           |   |
| D    | GEOGRAPHIC PLACE NAME OF Meliadine Gold Pro  |  | FROM NAMED LO  | OCATION   | REGION   | <b>《</b> NUNAVUT                     | □ ADJACENT JURISDIC  | TION                      | OR OCEAN  |
| Е    |  |  | seconds 24   | ļ <u> </u>  | LONGITUDE DEGREES 92   |                                      | MINUTES 11   | SE                        | conds 7   |
| F    | Agnico Eagle Mine  |  |  |   | oress or offic<br>kin Inlet, N   |                                      | X0C 0G0  |                           |   |
| G    | ANY CONTRACTOR INVOLVED  None  |  | CONTRACTOR A   | ADDRESS (   | OR OFFICE LOC  | ATION                                |  |                           |   |
|      | PRODUCT SPILLED  Diesel Fuel   |  | QUANTITY IN LIT  | TRES, KILC  | OGRAMS OR CUE  | BIC METRES                           | U.N. NUMBER<br>1202  |                           |   |
| H    | SECOND PRODUCT SPILLED (II  None   | F APPLICABLE)  | QUANTITY IN LIT  | TRES, KILC  | OGRAMS OR CUE  | BIC METRES                           | U.N. NUMBER  |                           |   |
|      | SPILL SOURCE  GenSet (Generator  |  | SPILL CAUSE  Human E   | rror  |  |                                      | AREA OF CONTAMINATION TBD  | N IN                      | SQUARE METRES   |
| J    | FACTORS AFFECTING SPILL OF <b>NA</b>   | R RECOVERY   | DESCRIBE ANY   | ASSISTAN  | CE REQUIRED  |                                      | HAZARDS TO PERSONS,  | PROF                      | PERTY OR EQUIPMENT  |
| K    | that a flexible hose immediately the further than the Environment on the Actions Taken: Steam attentions to be Taken in a JHA, we did commend to the steam attention of the steam atten | nel transfer to the ne radio to have so opped fuel transform the spill trailer, en: As the cause reate a procedura | raise vent<br>support for<br>er, called E<br>proceeded<br>of the spill | ilation<br>the sp<br>Environ<br>I with<br>is an l | tank (link<br>oill remedi<br>nment Dep<br>pumping a<br>human eri<br>ssure that | ed to the ation.  partment and colle | e same pipe line<br>t, contained the<br>ecting spilled fu<br>ot respecting all<br>s are done and e | fue<br>el a<br>ste<br>xec | ichard called I spill with nd absorbent ps included suted correct |
| L    | REPORTED TO SPILL LINE BY  Jennifer Brown  | POSITION Environmenta  | al Coordit   | Agnic   | R<br>O Eagle   |                                      | cation calling from<br>leliadine Project   |                           | ELEPHONE<br>8198604515  |
| М    | ANY ALTERNATE CONTACT  Jessica Huza  | POSITION  General Supe   | rvisor   | EMPLOYE<br><b>Agnic</b>                           | R<br>O Eagle   |                                      | rernate contact<br><b>leliadine Projec</b> t<br>carion   |                           | LTERNATE TELEPHONE<br>819856-5097                                 |
|      |  | <u> </u>   | REPORT LINI  | E USE ON  | LY   |                                      |  |                           |   |
| Ν    | RECEIVED AT SPILL LINE BY  | POSITION STATION OPERATOR  |  | EMPLOYE   | R  |                                      | CATION CALLED<br>LLOWKNIFE, NT   |                           | EPORT LINE NUMBER<br>367) 920-8130                                |
| LEAD | AGENCY DEC DCCG DGN  |  | □ NEB □ TC   | SIGNII  | FICANCE   MIN  |                                      | ,  |                           | S □ OPEN □ CLOSED   |
| AGEN | NCY C  | CONTACT NAME   |  | CONT  | ACT TIME   |                                      | REMARKS  |                           |   |
| LEAD | AGENCY   |  |  |   |  |                                      |  |                           |   |
| FIRS | T SUPPORT AGENCY   |  |  |   |  |                                      |  |                           |   |
|      | OND SUPPORT AGENCY   |  |  |   |  |                                      |  |                           |   |
| THIR | D SUPPORT AGENCY   |  |  |   |  |                                      |  |                           |   |



# Follow Up Report: February 18, 2018 Fuel Tank Farm Spill

#### **Description of Exceedance:**

On February 18, 2018 a fuel spill was reported at the fuel tank farm. The spill occurred after the commissioning of the system, while transferring fuel to the Portal 1 fuel storage tank. A valve was left opened and not locked out at a connection that transferred fuel to the gas boy. Visual observations during the fuel transfer to the Portal 1 fuel storage tank showed that fuel was spilling out of the gas boy fuel line. Upon immediate observation of the spill, the system was shut down and no additional spill volumes occurred. During the fuel transfer, 1,022 liters of fuel were transferred to the Portal 1 fuel storage tank and approximately 6,500 liters were released to the environment in the area around the gas boy. This volume was calculated from instrumentation readings. No contaminants reached any water body.

#### **Spill response:**

E&I personnel were at the spill location during the occurrence. The Environment department was contacted immediately and straw logs and spill absorbent pads were mobilized to contain the fuel spill and to prevent the transport of contaminant away from the spill area. Due to the position of the fuel tanks located within the spill area near the gas boy, fuel spilled under the tanks was not easily accessed to be absorbed and disposed of as hazmat. There was extremely cold temperatures at this time (approximately -70 °C) and the ground where the spill occurred was frozen and the fuel also froze.

## **Spill Cleanup:**

Once control of the spill site was obtained, spill cleanup activities were initiated. Approximately 4,500 l of free product was collected by pump to storage drums and totes. The collected free product is planned to be recycled as fuel for operating the incinerator at Site. Approximately 140 m³ of snow and frozen fuel was removed and placed in the License A Landfarm. Since the area under the fuel tanks was not easily accessed for excavation, the tanks are currently being emptied so that they can be disconnected and removed so that equipment can access the area to complete the spill clean-up by excavating the area to remove any remaining fuel from the spill.

## **Spill Cause and Corrective Measures**

The operator failed to close and lock-out a valve prior to initiating the fuel transfer. The spill was caused by human error, by not respecting all steps included in a JHA. A procedural check list was drafted to ensure that all steps are completed and executed correctly during future fuel transfers.





# Canada NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| _    | REPORT DATE: MONTH - DAY -  | -YEAR  |  | REPORT                        | TIME  |  |   |                                   |                             |  |
|------|---|--|--|-------------------------------|---|--|---|-----------------------------------|-----------------------------|--|
| Α    | 06-15-2018  |  |  | 16:20                         | )   |  | XORIGINAL SPILL REF   | PORT,                             | REPORT NUMBER               |  |
| D    | OCCURRENCE DATE: MONTH -  | - DAY – YEAR   |  |                               | ENCE TIME                                       |  | UPDATE #  | L DEBORT                          | 18 - 231                    |  |
| В    | 05-27-2018  |  |  | 16:00                         | )   |  | TO THE ORIGINAL SPIL  | L REPORT                          |                             |  |
| С    | LAND USE PERMIT NUMBER (IF  | F APPLICABLE)  |  |                               |   |  | (IF APPLICABLE)   |                                   |                             |  |
|      | KVPL11D01   |  |  |                               | 2AM-ME  | L1631                                    |   |                                   |                             |  |
| D    | GEOGRAPHIC PLACE NAME OF  |  | N FROM NAMED L   | OCATION                       | REGION  |  |   |                                   |                             |  |
| _    | Meliadine Gold Pro  | ojeci<br>  |  |                               | □ NWT   | X NUNAVU                                 | T   | RISDICTION                        | OR OCEAN                    |  |
| Ε    | LATITUDE 62   | MINUTES 47   | E  | 0                             | LONGITUDE                                       | 12                                       | MINUTES 5   |                                   | 42                          |  |
|      | DEGREES <b>62</b> RESPONSIBLE PARTY OR VESS   |  | SECONDS 58   |                               | DEGREES OR OFF                                  |  |   | SE                                | ECONDS 42                   |  |
| F    | Agnico Eagle Mine   |  |  |                               |   |  | ut, X0C 0G0   |                                   |                             |  |
|      | ANY CONTRACTOR INVOLVED   |  |  |                               | OR OFFICE LO                                    |  | <b>,</b>  |                                   |                             |  |
| G    | None  |  |  |                               |   |  |   |                                   |                             |  |
|      | PRODUCT SPILLED   |  | QUANTITY IN LI   | ITRES, KIL                    | OGRAMS OR CI                                    | UBIC METRE                               | S U.N. NUMBER   |                                   |                             |  |
|      | Suspended Solids  | (TSS)  | 500 - 120  | )0 mg/                        | L   |  | NA  |                                   |                             |  |
| Н    | SECOND PRODUCT SPILLED (I   | F APPLICABLE)  | QUANTITY IN LI   | ITRES, KIL                    | OGRAMS OR C                                     | UBIC METRE                               | S U.N. NUMBER   |                                   |                             |  |
|      | None  |  |  |                               |   |  | NA  |                                   |                             |  |
| 1    | SPILL SOURCE  |  | SPILL CAUSE  |                               |   |  | AREA OF CONTAIN   | INATION IN                        | SQUARE METRES               |  |
| l    | Snow melt contain   | ning sediment  | Freshet  |                               |   |  |   |                                   |                             |  |
| J    | FACTORS AFFECTING SPILL OF  |  | DESCRIBE ANY   | ' ASSISTAI                    | NCE REQUIRED                                    |  | HAZARDS TO PER  | SONS, PROF                        | PERTY OR EQUIPMENT          |  |
|      | Access and ability  |  |  |                               |   |  |   |                                   |                             |  |
|      | ADDITIONAL INFORMATION, CO While conducting   |  |  |                               |   |  |   |                                   |                             |  |
| K    | As per the obligation pursuant to subset samples were colliquality parameters concentrations exwater body.  License Limit = 10 Analysis results = | ection 12(3) of the<br>ected for laborat<br>s. The laboratory<br>ceeded those ou<br>0 mg/L (maximu | e Nunavut voor analys<br>results we<br>atlined in the<br>m concent | Waters is to a ere rec ne Typ | s and Nur<br>ssess the<br>eived on<br>e A water | navut Se<br>TSS ce<br>June 19<br>Ticense | urface Rights<br>oncentration a<br>5th and showe<br>e for discharge | Tribuna<br>and other<br>ad that l | al Act.,<br>er water<br>ГSS |  |
|      | -   |  |  |                               |   |  |   |                                   |                             |  |
| ı    | REPORTED TO SPILL LINE BY   | POSITION   |  | EMPLOY                        |   |  | LOCATION CALLING FF   |                                   | ELEPHONE                    |  |
| _    | Dan Gorton  | Environment  | ai Coordit   |                               | co Eagle  |  | Meliadine Pro   | -                                 | 819.759.3555                |  |
| Μ    | ANY ALTERNATE CONTACT  Justin MacMillan   | POSITION  Sr. Environm   | ent Tech   | Agni                          | <sup>₌</sup> ∺<br>co Eagle                      |  | ALTERNATE CONTACT  Meliadine Pro                                    |                                   | 11 ATT                      |  |
|      |   |  | REPORT LIN   |                               |   |  | LOCATION  |                                   |                             |  |
|      | RECEIVED AT SPILL LINE BY   | POSITION   |  | EMPLOY                        |   |  | LOCATION CALLED   | R                                 | REPORT LINE NUMBER          |  |
| N    |   | STATION OPERATOR   |  |                               |   |  | YELLOWKNIFE, NT   | (8                                | 367) 920-8130               |  |
| LEAI | DAGENCY□EC□CCG□G  | <br>NWT □ GN □ ILA □ INAC  | C □ NEB □ TC   | SIGN                          | IFICANCE   M                                    | INOR 🗆 MA                                | JOR □ UNKNOWN   | FILE STATU                        | JS □ OPEN □ CLOSED          |  |
| AGE  |   | CONTACT NAME   | -  |                               | TACT TIME                                       |  | REMARKS   |                                   |                             |  |
|      |   | JOHN OF TANKE  |  | 1001                          |   |  | TEMATICO.   |                                   |                             |  |
| LEAI | D AGENCY  |  |  |                               |   |  |   |                                   |                             |  |
| FIRS | T SUPPORT AGENCY  |  |  |                               |   |  |   |                                   |                             |  |
| SEC  | OND SUPPORT AGENCY  |  |  |                               |   |  |   |                                   |                             |  |
| TUIC | D SUPPORT AGENCY  |  |  |                               |   |  |   |                                   |                             |  |



# Follow Up Report: #18-231 May 27, 2018 Itivia Surface Water Run-off

### **Description of Exceedance:**

While conducting a routine inspection of the Itivia construction site on May 27th, turbid surface water run-off was observed crossing over a roadway and through a culvert into Melvin Bay.

### **Spill response:**

As per the obligations under the Nunavut Water Board License 2AM-MEL1631, Part D, item 18 pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act., samples were collected for laboratory analysis to assess the TSS concentration and other water quality parameters. The laboratory results were received on June 15th and showed that TSS concentrations exceeded those outlined in the Type A water license for discharge/release into a water body.

### **Spill Cleanup:**

Clean up was not applicable as surface water run-off diluted into seawater.

## **Spill Cause and Corrective Measures**

Run-off was caused by snow melting inside and outside the site disturbance area. A sediment trap was created using gravel and straw logs prior to the run-off event being sampled. The sediment traps were not effective enough to reduce TSS below acceptable levels. Improving the snow management plan and following the procedure will help reduce run-off volumes in the future.



Picture 1: Sampling location between access road and Melvin Bay.



Picture 2: Sample location immediately after sediment controls at culvert.





# Canada NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| ^     | REPORT DATE: MONTH – DAY –   | -YEAR  |   | REPORT                                 | TIME  | TODIONAL ORILL PERORT                                |   |                                  |                                 |
|-------|--|--|---|--|---|--|---|----------------------------------|---------------------------------|
| Α     | 06-21-2018   |  |   | 17:20                                  | )   |  | XORIGINAL SPILL REF   | PORI,                            | REPORT NUMBER                   |
| D     | OCCURRENCE DATE: MONTH -   | - DAY – YEAR   |   |  | ENCE TIME                                       |  | UPDATE #  | L DEPORT                         | 18 - 247                        |
| В     | 06-03-2018   |  |   | 12:00                                  | )   |  | TO THE ORIGINAL SPIL  | L REPORT                         |                                 |
| С     | LAND USE PERMIT NUMBER (IF   | F APPLICABLE)  |   |  |   |  | (IF APPLICABLE)   |                                  |                                 |
|       | KVPL11D01  |  |   |  | 2AM-ME  | L1631  |   |                                  |                                 |
| D     | GEOGRAPHIC PLACE NAME OF   |  | N FROM NAMED L  | OCATION.                               | REGION  |  |   |                                  |                                 |
| _     | Meliadine Gold Pro   | ojeci<br>  |   |  | □ NWT   | X NUNAVU   | T   | RISDICTION                       | OR OCEAN                        |
| Ε     | LATITUDE 62  | MINUTES 47   | E   | •                                      | LONGITUDE                                       | 12   | MINUTES 5   |                                  | 40                              |
| _     | DEGREES <b>62</b> RESPONSIBLE PARTY OR VESS  |  | SECONDS 58  |  | DEGREES GROFF                                   |  |   | SE                               | ECONDS 48                       |
| F     | Agnico Eagle Mine  |  |   |  |   |  | ut, X0C 0G0   |                                  |                                 |
|       | ANY CONTRACTOR INVOLVED  |  |   |  | OR OFFICE LO                                    |  | ,   |                                  |                                 |
| G     | None   |  |   |  |   |  |   |                                  |                                 |
|       | PRODUCT SPILLED  |  | QUANTITY IN LI  | TRES, KIL                              | OGRAMS OR C                                     | UBIC METRE   | S U.N. NUMBER   |                                  |                                 |
|       | Suspended Solids   | (TSS)  | 420 mg/l  | _                                      |   |  | NA  |                                  |                                 |
| Н     | SECOND PRODUCT SPILLED (I  | F APPLICABLE)  | QUANTITY IN LI  | TRES, KIL                              | OGRAMS OR C                                     | UBIC METRE   | S U.N. NUMBER   |                                  |                                 |
|       | None   |  |   |  |   |  | NA  |                                  |                                 |
| ı     | SPILL SOURCE   |  | SPILL CAUSE   |  |   |  | AREA OF CONTAIN   | INATION IN                       | SQUARE METRES                   |
| ı     | Snow melt contain  |  | Freshet   |  |   |  |   |                                  |                                 |
| J     | FACTORS AFFECTING SPILL OF   |  | DESCRIBE ANY  | ASSISTA                                | NCE REQUIRED                                    |  | HAZARDS TO PER  | SONS, PROF                       | PERTY OR EQUIPMENT              |
|       | Access and ability   |  |   |  |   |  |   |                                  |                                 |
|       | ADDITIONAL INFORMATION, CO  While conducting   |  |   |  |   |  |   |                                  |                                 |
| K     | As per the obligation pursuant to subsest samples were colliquality parameters concentrations exwater body.  License Limit = 10 Analysis results = | ection 12(3) of the<br>ected for laborat<br>s. The laboratory<br>ceeded those ou<br>0 mg/L (maximu | e Nunavut V<br>ory analys<br>results we<br>tlined in th | Waters<br>is to a<br>ere rec<br>le Typ | s and Nur<br>ssess the<br>eived on<br>e A water | navut Se<br>TSS ce<br>June 2 <sup>2</sup><br>Iicense | urface Rights<br>oncentration a<br>1st and showe<br>e for discharge | Tribuna<br>and othe<br>ed that T | ll Act.,<br>er water<br>ΓSS     |
|       |  |  |   | I                                      |   |  |   |                                  |                                 |
| L     | REPORTED TO SPILL LINE BY  Dan Gorton  | POSITION Environment   | al Coordit  | EMPLOY<br>Agni                         | er<br>co Eagle                                  |  | Meliadine Pro   |                                  | ELEPHONE<br><b>819.759.3555</b> |
| _     | ANY ALTERNATE CONTACT  | POSITION   | ui occiuit  | EMPLOY                                 |   |  | ALTERNATE CONTACT   | -                                | LTERNATE TELEPHONE              |
| M     | Justin MacMillan   | Sr. Environm   | ent Tech  |  | co Eagle  |  | Meliadine Pro   |                                  | 819.759.3555                    |
|       |  |  | REPORT LIN  |  |   |  | EGO/MICIN   |                                  |                                 |
|       | RECEIVED AT SPILL LINE BY  | POSITION   |   | EMPLOY                                 | ER  |  | LOCATION CALLED   | R                                | EPORT LINE NUMBER               |
| N     |  | STATION OPERATOR   |   |  |   |  | YELLOWKNIFE, NT   | (8                               | 367) 920-8130                   |
| I FAI | DAGENCY□EC□CCG□G   | <br>NWT □GN □IIA □INAO   | C □ NEB □ TC  | SIGN                                   | IFICANCE □ M                                    | INOR 🗆 MA.   | JOR □ UNKNOWN   | FILE STATU                       | JS □ OPEN □ CLOSED              |
|       |  | CONTACT NAME   |   |  |   |  |   |                                  |                                 |
| AGE   | NCY C  | CONTACT NAME   |   | CON                                    | TACT TIME                                       |  | REMARKS   |                                  |                                 |
| LEAI  | D AGENCY   |  |   |  |   |  |   |                                  |                                 |
| FIRS  | T SUPPORT AGENCY   |  |   |  |   |  |   |                                  |                                 |
| SEC   | OND SUPPORT AGENCY   |  |   |  |   |  |   |                                  |                                 |
| ۱     | RD SUPPORT AGENCY  |  |   |  |   |  |   |                                  |                                 |



## Follow Up Report: #18-247 June 3rd, 2018 Itivia Surface Water Run-off

### **Description of Exceedance:**

While conducting a routine inspection of the Itivia construction site on June 3rd, turbid surface run-off water was observed flowing into Melvin Bay from the eastern entrance to the bypass road. This is an area of foreshore with a gentle gradient. The sampling location is referred to as SR11.



Figure 1: Sample location at Melvin Bay foreshore

## **Spill response:**

As per the obligations under the Nunavut Water Board License 2AM-MEL1631, Part D, item 18 pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act., samples were collected for laboratory analysis to assess the TSS concentration and other water quality parameters. The laboratory results were received on June 21<sup>st</sup> and showed that TSS concentrations exceeded those outlined in the Type A water license for discharge/release into a water body. The license limit for any grab sample is 100mg/L while the sample analysis reading was 420mg/L.

## **Spill Cleanup:**

Clean up was not appropriate as surface water run-off diluted into seawater.

## **Spill Cause and Corrective Measures**

Run-off was caused by snow melting inside and outside the site disturbance area. A sediment trap was created using straw logs prior to the run-off event being sampled. The sediment traps were not effective enough to reduce TSS below acceptable levels. Improving the snow management plan and following the procedure will help reduce run-off volumes in the future.

\*Add a map showing the area and where SR-11 was taken. I think Justin has already produced this map.



**Picture 1:** Straw log sediment trap between Bypass Road entrance at Itivia and Melvin Bay.



Picture 2: Run-off area from Bypass Road entrance at Itivia to Melvin Bay.



Picture 3: Run-off area from Bypass Road entrance at Itivia to Melvin Bay.





# **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| _                        | REPORT DATE: MONTH – DAY – YEAR REPORT TIME  |  |  |   |  |  |   |  |   |
|--------------------------|--|--|--|---|--|--|---|--|---|
| Α                        | June 08-2018   |  |  | 19:04   |  |  | □ ORIGINAL SPILL REF<br>DR  | PORT,  | REPORT NUMBER   |
| ח                        | OCCURRENCE DATE: MONTH – DA  | AY – YEAR  |  | OCCURR  | ENCE TIME  |  | □ UPDATE #  |  | 18 - 213  |
| В                        | Unknown  |  |  | Unkn  | own  | [ ]  | O THE ORIGINAL SPIL   | L REPORT                                       |   |
| С                        | LAND USE PERMIT NUMBER (IF AI  | PPLICABLE)   |  |   | WATER LICENCI  |  | IF APPLICABLE)  |  |   |
|                          | KVCL102J168  |  |  |   | 2AM-MEL  | .1631  |   |  |   |
| D                        | GEOGRAPHIC PLACE NAME OR D  MELIADINE GOLD P   |  | FROM NAMED L   | OCATION.  | REGION  NWT  | XNUNAVUT   | . □ ADJACENT JUI  | RISDICTION (                                   | OR OCEAN  |
| _                        | LATITUDE   |  |  | I   | LONGITUDE  |  |   |  |   |
| E                        |  |  | SECONDS 24   | 1   | DEGREES 92   | 2  | MINUTES 11  | SE   | CONDS 7   |
| F                        | RESPONSIBLE PARTY OR VESSEL  |  |  |   | DRESS OR OFFI  |  |   |  |   |
| <u>'</u>                 | Agnico Eagle Mines   | Liu  |  |   | · ·  |  | t, X0C 0G0  |  |   |
| G                        | ANY CONTRACTOR INVOLVED  Orbit Garant  |  |  |   | or office Loc  |  | ette, Val d'Or,   | OC .19P  | P 6Y6   |
|                          | PRODUCT SPILLED  |  | ·  |   | OGRAMS OR CU   |  |   | QO 031   | 010   |
|                          | Hydraulic Oil  |  | Unknowr  | ,   | Janaws on co   | DIC WILTHE   | O.N. NOMBER   |  |   |
| Н                        | SECOND PRODUCT SPILLED (IF A   | PPLICABLE)   |  | TRES, KILO  | OGRAMS OR CU   | BIC METRES   | U.N. NUMBER   |  |   |
|                          | NA   |  | NA   |   |  |  |   |  |   |
| ı                        | SPILL SOURCE  Hydraulic Oil Hose [   | Drin   | SPILL CAUSE <b>Equipme</b>   | nt Mal  | function   |  | AREA OF CONTAIN   | MINATION IN S                                  | SQUARE METRES   |
| •                        | FACTORS AFFECTING SPILL OR R   | •  | DESCRIBE ANY   |   |  |  |   | ISONS PROF                                     | PERTY OR EQUIPMENT  |
| J                        | THO TOTION IT ESTIMATOR ILLE STATE   | LOOVEITI   | DESCRIBE AILT  | 71001017111   | OL HEGOINED  |  | 17,12,111,130,101,1211  | 100110, 1 1101                                 | ETTT OTTEGOT MENT   |
|                          | ADDITIONAL INFORMATION, COMM   | MENTS, ACTIONS PROPOS  | LED OR TAKEN TO  | O CONTAIN   | N, RECOVER OR  | DISPOSE O  | F SPILLED PRODUCT   | AND CONTAIN                                    | MINATED MATERIALS   |
| K                        | the impact to B8 is e<br>planned as snow an<br>The drill will be insp<br>containment to be s<br>819-759-3555 ext. 39 | nown duration, heks prior to the see, it remains a note of the seed to be note the seed and repair ought to reduce | however, r<br>spill repor<br>non-contact<br>icted and l<br>minimal; h<br>his locatio<br>ired prior t | mainte<br>rt. Lake<br>ct wate<br>B8 bed<br>oweve<br>on (GP<br>to star | nance and<br>e B8 is a r<br>er body as<br>comes cor<br>er, ongoin<br>S UTM 83  | d a hose<br>non-fish<br>part of<br>ntainme<br>g spill o<br>Z015: 5 | e change was<br>a bearing lake<br>f Meliadine's<br>ent pond CP4.<br>elean up and 6<br>639096.07, 69 | conduce. Despit<br>Water M<br>At presobserva   | cted<br>te B8 being<br>lanagement<br>sent moment,   |
| L                        | REPORTED TO SPILL LINE BY  | T  |  |   | e drips. S <sub>l</sub>  | oill repo  | ort by Jennife  | r Brown  | 1, 1006.40).<br>condary<br>ı  |
| N 4                      | Jennifer Brown   | POSITION Sr. Env Coord   | inator   | EMPLOYE   | e drips. Sp  | oill repo  | ort by Jennife  | r Brown  | 1, 1006.40).<br>condary<br>1  |
| /                        | ANY ALTERNATE CONTACT  | Sr. Env Coord  |  | EMPLOYE<br>Agnic  | e drips. Sp  | oill repo  | ort by Jennife  OCATION CALLING FF  Meliadine  ALTERNATE CONTACT                                    | r Brown ROM TE                                 | 1, 1006.40). condary 1 ELEPHONE 819-759-3555 LTERNATE TELEPHONE   |
| M                        |  | Sr. Env Coord  |  | EMPLOYE<br>Agnic  | e drips. Sp  | oill repo  | ort by Jennife<br>ocation calling FF<br>Meliadine   | r Brown ROM TE                                 | 1, 1006.40).<br>condary<br>1<br>ELEPHONE<br>319-759-3555  |
| IVI                      | ANY ALTERNATE CONTACT  | Sr. Env Coord  |  | EMPLOYE<br>Agnic<br>EMPLOYE<br>Agnic                                  | e drips. Sp<br>co Eagle<br>co Eagle  | L A  | ort by Jennife  OCATION CALLING FF  Meliadine  ALTERNATE CONTACT  Mirabel                           | r Brown ROM TE                                 | 1, 1006.40). condary 1 ELEPHONE 819-759-3555 LTERNATE TELEPHONE   |
|                          | ANY ALTERNATE CONTACT  | Sr. Env Coord  | or   | EMPLOYE<br>Agnic<br>EMPLOYE<br>Agnic                                  | e drips. Sp<br>co Eagle<br>co Eagle  | L L  | ocation calling FF Meliadine  LITERNATE CONTACT Mirabel  OCATION CALLED                             | ROM THE SAME SAME SAME SAME SAME SAME SAME SAM | 1, 1006.40). condary 1 ELEPHONE 819-759-3555 LTERNATE TELEPHONE   |
| N                        | ANY ALTERNATE CONTACT Jessica Huza   | Sr. Env Coord POSITION Gen Superviso   | or   | EMPLOYE Agnic EMPLOYE Agnic   | e drips. Sp<br>co Eagle<br>co Eagle  | L L  | ort by Jennife  OCATION CALLING FF  Meliadine  ALTERNATE CONTACT  Mirabel                           | ROM TE   | 1, 1006.40).<br>condary<br>1<br>ELEPHONE<br>819-759-3555<br>LTERNATE TELEPHONE<br>819-759-3555                |
| N                        | ANY ALTERNATE CONTACT Jessica Huza   | Sr. Env Coord POSITION Gen Superviso POSITION STATION OPERATOR   | O <b>r</b><br>REPORT LIN   | EMPLOYE Agnic EMPLOYE E USE ON  | e drips. Specific ER Co Eagle Co Eagle   | L L  | ocation calling FF Meliadine  LITERNATE CONTACT Mirabel  OCATION CALLED                             | ROM TE   | 1, 1006.40). condary  ELEPHONE 819-759-3555  LTERNATE TELEPHONE 819-759-3555  EPORT LINE NUMBER               |
| N                        | ANY ALTERNATE CONTACT  Jessica Huza  RECEIVED AT SPILL LINE BY  D AGENCY   EC   CCG   GNW                            | Sr. Env Coord POSITION Gen Superviso POSITION STATION OPERATOR   | O <b>r</b><br>REPORT LIN   | EMPLOYE Agnic EMPLOYE EUSE ON EMPLOYE                                 | e drips. Specific ER Co Eagle Co Eagle   | L L  | OCATION CALLING FF Meliadine ALTERNATE CONTACT Mirabel OCATION CALLED CELLOWKNIFE, NT               | ROM TE   | 1, 1006.40). condary  ELEPHONE B19-759-3555  LTERNATE TELEPHONE B19-759-3555  EPORT LINE NUMBER B67) 920-8130 |
| N<br>LEAL<br>AGE         | ANY ALTERNATE CONTACT  Jessica Huza  RECEIVED AT SPILL LINE BY  D AGENCY   EC   CCG   GNW                            | Sr. Env Coord  POSITION  Gen Superviso  POSITION  STATION OPERATOR  /T GN GILA GINAC                               | O <b>r</b><br>REPORT LIN   | EMPLOYE Agnic EMPLOYE EUSE ON EMPLOYE                                 | e drips. Specific ER CO Eagle ER CO Eagle ILY ER COMMINISTRATION OF THE PROPERTY OF THE PROPER | L L  | OCATION CALLING FE Meliadine ALTERNATE CONTACT Mirabel OCATION CALLED VELLOWKNIFE, NT DR UNKNOWN    | ROM TE   | 1, 1006.40). condary  ELEPHONE B19-759-3555  LTERNATE TELEPHONE B19-759-3555  EPORT LINE NUMBER B67) 920-8130 |
| N<br>LEAL<br>AGE         | ANY ALTERNATE CONTACT  Jessica Huza  RECEIVED AT SPILL LINE BY  D AGENCY   EC   CCG   GNW  ENCY   CON                | Sr. Env Coord  POSITION  Gen Superviso  POSITION  STATION OPERATOR  /T GN GILA GINAC                               | O <b>r</b><br>REPORT LIN   | EMPLOYE Agnic EMPLOYE EUSE ON EMPLOYE                                 | e drips. Specific ER CO Eagle ER CO Eagle ILY ER COMMINISTRATION OF THE PROPERTY OF THE PROPER | L L  | OCATION CALLING FE Meliadine ALTERNATE CONTACT Mirabel OCATION CALLED VELLOWKNIFE, NT DR UNKNOWN    | ROM TE   | 1, 1006.40). condary  ELEPHONE B19-759-3555  LTERNATE TELEPHONE B19-759-3555  EPORT LINE NUMBER B67) 920-8130 |
| N<br>LEAL<br>AGE<br>LEAL | ANY ALTERNATE CONTACT  Jessica Huza  RECEIVED AT SPILL LINE BY  D AGENCY   EC   CCG   GNW  ENCY   CON  D AGENCY      | Sr. Env Coord  POSITION  Gen Superviso  POSITION  STATION OPERATOR  /T GN GILA GINAC                               | O <b>r</b><br>REPORT LIN   | EMPLOYE Agnic EMPLOYE EUSE ON EMPLOYE                                 | e drips. Specific ER CO Eagle ER CO Eagle ILY ER COMMINISTRATION OF THE PROPERTY OF THE PROPER | L L  | OCATION CALLING FE Meliadine ALTERNATE CONTACT Mirabel OCATION CALLED VELLOWKNIFE, NT DR UNKNOWN    | ROM TE   | 1, 1006.40). condary  ELEPHONE B19-759-3555  LTERNATE TELEPHONE B19-759-3555  EPORT LINE NUMBER B67) 920-8130 |



# Follow Up Report – #18-213 June 8<sup>th</sup> 2018 Drill 3 Hydraulic Oil Spill at B8

#### **Description of Exceedance:**

Drilling activities have been underway near Lake B8 and a small drip from a hydraulic hose in the drilling shack was observed when the drill was being demobilized from the location. The hose was dripping for an unknown duration, however, maintenance and a hose change was conducted approximately 3-weeks prior to the spill report. Lake B8 is a non-fish bearing lake. Despite B8 being non-fish bearing lake, it remains a non-contact water body as part of Meliadine's Water Management Plan until the dike D-CP4 is constructed and B8 becomes containment pond CP4. At present moment, the impact to B8 is expected to be minimal; however, ongoing spill clean-up and observations are planned as snow and ice thaws at this location (GPS UTM 83 Z015: 539096.07, 6988864.61, 1006.40).

#### **Spill response:**

Booms were placed around the spill area to prevent hydrocarbon flow to B8. Some contaminated soil was removed and placed in the landfarm.



Figure 1: Booms placed downstream of spill location.

## Spill Cleanup:

A shop-vac was used to remove hydraulic oil observed on surface and peat moss was placed to help remediate the area. The area was inspected on 22<sup>nd</sup> June, 2018. No flowing water was observed. Booms were removed and disposed of appropriately as Hazmat.

## **Spill Cause and Corrective Measures**

The drill will be inspected and repaired prior to starting at the next location and better secondary containment to be sought to reduce risks from hose drips.





# **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| ^                 | REPORT DATE: MONTH – DAY –   | -YEAR   |  | REPORT TIME   |   |   |   |                                       |                               |
|-------------------|--|---|--|---|---|---|---|---------------------------------------|-------------------------------|
| Α                 | 06-27-2018   |   |  | 16:40   |   | 0   | (ORIGINAL SPILL REPOR   | JHI,                                  | REPORT NUMBER                 |
| П                 | OCCURRENCE DATE: MONTH -   | - DAY – YEAR  |  | OCCURRE   | NCE TIME  |   | UPDATE #  |                                       | 18 - 251                      |
| В                 | 06-10-2018   |   |  | 09:20   |   | TC  | OTHE ORIGINAL SPILL   | . REPORT                              |                               |
| $\overline{}$     | LAND USE PERMIT NUMBER (IF   | F APPLICABLE)   | '  | V   | VATER LICENC  | E NUMBER (IF  | APPLICABLE)   |                                       |                               |
| C                 | KVPL11D01  |   |  |   | 2AM-ME  | L1631   |   |                                       |                               |
| $\overline{\Box}$ | GEOGRAPHIC PLACE NAME OF   |   | FROM NAMED LO  | OCATION   | REGION  |   |   |                                       |                               |
| D                 | Meliadine Gold Pro   | oject   |  |   | □ NWT   | X NUNAVUT   | ☐ ADJACENT JUR  | ISDICTION                             | OR OCEAN                      |
| Е                 | LATITUDE   |   |  |   | ONGITUDE.   |   |   |                                       |                               |
|                   |  | MINUTES 47  | SECONDS 58   |   | DEGREES 9   | 2   | MINUTES 5   | S                                     | ECONDS 42                     |
| F                 | RESPONSIBLE PARTY OR VESS  |   | RESPONSIBLE P  |   |   |   |   |                                       |                               |
| <u>'</u>          | Agnico Eagle Mine  | es Lta.   |  |   |   |   | , X0C 0G0   |                                       |                               |
| G                 | ANY CONTRACTOR INVOLVED  |   | CONTRACTOR A   | DDRESS C  | R OFFICE LO   | CATION  |   |                                       |                               |
| <u> </u>          | None   |   |  |   |   |   | 1   |                                       |                               |
|                   | PRODUCT SPILLED  Suspended Solids  | · (T99)   | QUANTITY IN LIT  |   |   | JBIC METRES   | U.N. NUMBER   |                                       |                               |
| Н                 | SECOND PRODUCT SPILLED (I  | ` '   | 160 mg/L   | •   |   | IDIO METDEO   | U.N. NUMBER   |                                       |                               |
| •                 | None   | F APPLICABLE)   | QUANTITY IN LIT  | RES, KILO   |   |   |   |                                       |                               |
|                   | SPILL SOURCE   |   | SPILL CAUSE  |   |   |   | NA AREA OF CONTAMI  | NIATIONI INI                          | SOLIABE METRES                |
|                   | Snow melt contain  | ning sediment   | Freshet  |   |   |   | AREA OF CONTAINI  | NATION IN                             | SQUARE METRES                 |
|                   | FACTORS AFFECTING SPILL OF   |   | DESCRIBE ANY   | ASSISTANO   | CE REQUIRED   |   | HAZARDS TO PERS   | ONS. PRO                              | PERTY OR EQUIPMENT            |
| J                 | Access and ability   |   |  |   |   |   |   |                                       |                               |
|                   | ADDITIONAL INFORMATION, CO   |   | <u>I</u><br>SED OR TAKEN TO  | ) CONTAIN   | , RECOVER OF  | R DISPOSE OF  | I<br>SPILLED PRODUCT A  | ND CONTA                              | MINATED MATERIALS             |
| K                 | run-off water was laboratory analysi laboratory results license limit of 100 water body. Disch A follow-up report  The exceedance is item 18 pursuant t License Limit = 10 | s to assess the T<br>were received or<br>0 mg/L TSS as ou<br>narge and flow ra<br>with additional c<br>s being reported to<br>so subsection 12( | SS concenty June 25th tlined in the were mire letails will lunder the Name 13) of the Name 15th 15th 15th 15th 15th 15th 15th 15th | tration<br>and 1<br>e Type<br>nimal, a<br>be prov<br>lunavu | and oth<br>60 mg/L<br>A water<br>and caus<br>vided.<br>It Water | er water<br>TSS was<br>license<br>sed by lig<br>Board Li<br>and Nun | quality parants measured. The for discharge ght rain and second cense 2AM-Mayut Surface | neters<br>his ex<br>e/releas<br>now m | The ceeds the se into a lelt. |
| ı                 | REPORTED TO SPILL LINE BY  | POSITION  |  | EMPLOYER  |   |   | OCATION CALLING FRO   |                                       | ELEPHONE                      |
| L                 | Dan Gorton   | Environmenta  |  |   | o Eagle   |   | Meliadine Pro   |                                       | 819.759.3555                  |
| M                 | ANY ALTERNATE CONTACT  Laura Hanson  | Environmenta  |  | Agnic Agnic   | ∘<br>o Eagle  |   | TERNATE CONTACT  Meliadine Pro  CATION  |                                       | 819.759.3555                  |
|                   |  |   | REPORT LINE  | USE ONI   | _Y  |   |   |                                       |                               |
| Ν                 | RECEIVED AT SPILL LINE BY  | POSITION  |  | EMPLOYER  | 3   | LC  | DCATION CALLED  | F                                     | REPORT LINE NUMBER            |
| 1 /               |  | STATION OPERATOR  |  |   |   | YI  | ELLOWKNIFE, NT  | (                                     | 867) 920-8130                 |
| LEA               | DAGENCY □ EC □ CCG □ GI  | NWT □ GN □ ILA □ INAC   | □ NEB □ TC   | SIGNIF  | ICANCE   MI   | NOR □ MAJO  | R 🗆 UNKNOWN   | FILE STATI                            |                               |
| AGE               | NCY  | CONTACT NAME  |  | CONTA   | CT TIME   |   | REMARKS   |                                       | JS □ OPEN □ CLOSED            |
|                   | D AGENCY   |   |  |   |   |   |   |                                       | JS □ OPEN □ CLOSED            |
| LEAL              | AGENOT   |   |  | - 1   |   |   |   |                                       | JS □ OPEN □ CLOSED            |
| FIRS              | l l  |   |  |   |   |   |   |                                       | JS □ OPEN □ CLOSED            |
|                   | T SUPPORT AGENCY   |   |  |   |   |   |   |                                       | JS □ OPEN □ CLOSED            |
| SEC               | T SUPPORT AGENCY  OND SUPPORT AGENCY   |   |  |   |   |   |   |                                       | JS □ OPEN □ CLOSED            |
|                   | +  |   |  |   |   |   |   |                                       | JS □ OPEN □ CLOSED            |



## Follow Up Report: #18-251 June 10, 2018 Itivia Surface Water Run-off

### **Description of Exceedance:**

While conducting a routine inspection of the Itivia construction site on June 10, 2018, surface run-off water was observed flowing through a culvert into Melvin Bay. Samples were collected for laboratory analysis to assess the TSS concentration and other water quality parameters. The laboratory results were received on June 25, 2018 and a concentration of 160 mg/L TSS was measured. This exceeded the water quality criteria of 100 mg/L TSS, as outlined in part D, item 18 of the NWB Water Licence 2AM-MEL1631 for TSS discharge/release into a water body. Discharge and flow rate were minimal, and caused by light rain and snow melt.

The sampling location is referred to as SR1 and is shown in Figure 1.



Figure 1: Sample location SR-1 shown at Itivia Laydown

## **Spill Cleanup:**

Straw logs were placed downstream of the culvert to reduce TSS.

## **Spill Cause and Corrective Measures**

Run-off was caused by snow melting inside and outside the site disturbance area. Due to changes in the topography of the quarry, surface water is directed back towards the approved disturbance area, away from the quarry boundary. The decantation sump down-stream of the culvert had been repaired to minimize additional TSS flow during possible future rain periods. Silt fences and straw logs have been installed upstream of the site and are inspected weekly. A third party consultant has inspected the area to recommend improvements to mitigate and reduce erosion and sediment control. A final report on the consultant findings will be issued on August 24<sup>th</sup>.





# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | REPORT DATE: MONTH – DAY – <b>06-13-2018</b>  | YEAR  |                      | 11:00                                | 1:00 XORIGINALS                                |                                  | XORIGINAL SPILL REI                            | PORT,       | REPORT NUMBER                 |
|------|---|---|----------------------|--------------------------------------|--|----------------------------------|--|-------------|-------------------------------|
| В    | OCCURRENCE DATE: MONTH – 6-12-2018  | DAY – YEAR  |                      | OCCURF<br>11:00                      | ENCE TIME                                      |                                  | □ UPDATE #<br>TO THE ORIGINAL SPIL             | L REPORT    | 18 - 223                      |
| С    | LAND USE PERMIT NUMBER (IF KVPL11D01  | APPLICABLE)   |                      |                                      | WATER LICENCE  2AM-ME                          |                                  | (IF APPLICABLE)                                |             |                               |
| D    | GEOGRAPHIC PLACE NAME OF Meliadine Gold Pro   |   | ROM NAMED L          | OCATION                              | REGION  NWT                                    | X NUNAVU                         | T □ ADJACENT JUI                               | RISDICTION  | OR OCEAN                      |
| Е    | LATITUDE  DEGREES 63  | MINUTES 1 SE  | econds 43            | 3                                    | LONGITUDE<br>DEGREES                           | 92                               | MINUTES 10                                     | SE          | econds 9                      |
| F    | RESPONSIBLE PARTY OR VESS Agnico Eagle Mine   |   |                      |                                      | bress or off<br>kin Inlet,                     |                                  | on<br>it, X0C 0G0                              |             |                               |
| G    | ANY CONTRACTOR INVOLVED  None   | С   | CONTRACTOR           | ADDRESS                              | OR OFFICE LO                                   | CATION                           |  |             |                               |
|      | PRODUCT SPILLED  Sewage   |   | QUANTITY IN LI       | TRES, KIL                            | OGRAMS OR C                                    | UBIC METRE                       | S U.N. NUMBER                                  |             |                               |
| H    | SECOND PRODUCT SPILLED (IF None   | F APPLICABLE)   | UANTITY IN LI        | TRES, KIL                            | OGRAMS OR C                                    | UBIC METRE                       | S U.N. NUMBER                                  |             |                               |
| I    | SPILL SOURCE  Retention Tank Lif  |   | PILL CAUSE  Ground t | haw                                  |  |                                  | AREA OF CONTAIN                                | INATION IN  | SQUARE METRES                 |
| J    | FACTORS AFFECTING SPILL OF <b>N/A</b>   | R RECOVERY  | ESCRIBE ANY          | ASSISTA                              | NCE REQUIRED                                   | )                                | HAZARDS TO PER                                 | RSONS, PROF | PERTY OR EQUIPMENT            |
| K    | connection for the level reached its p eventually leaked sewage treatment Sr. Environmental Sr. Environmental | reset level started<br>onto the ground. S<br>discharge.<br>Coordinator - Jeni<br>Technician - Justi | the pum<br>Sewage v  | ps and<br>vas re<br>wn: Ex<br>lan: E | d the efflu<br>moved w<br>kt 3996<br>xt 3903 o | ient disc<br>ith a hyd<br>r 3925 | charged insid<br>dro suction tr                | e the bu    | uilding and<br>I stored for   |
| L    | REPORTED TO SPILL LINE BY  Jennifer Brown   | Sr. Env Coordir   | nator                | Agni                                 | <sup>ER</sup><br>co Eagle                      |                                  | LOCATION CALLING FF Meliadine Pro              |             | ELEPHONE<br>8197593555        |
| М    | ANY ALTERNATE CONTACT  Justin MacMillan   | Sr. Env Technic   | cian                 | Agnie                                | <sup>≘R</sup><br>co Eagle                      | ,                                | ALTERNATE CONTACT<br>Meliadine Pro<br>LOCATION |             | LTERNATE TELEPHONE 8197593555 |
|      |   |   | REPORT LIN           | E USE OI                             | NLY  |                                  |  |             |                               |
| Ν    | RECEIVED AT SPILL LINE BY   | POSITION STATION OPERATOR   |                      | EMPLOY                               | ER   |                                  | LOCATION CALLED YELLOWKNIFE, NT                |             | EPORT LINE NUMBER             |
| LEAD | AGENCY□EC□CCG□GN  | L   | NEB □TC              | SIGN                                 | IFICANCE □ M                                   |                                  | OR UNKNOWN                                     |             | US □ OPEN □ CLOSED            |
| AGE  | NCY C   | ONTACT NAME   |                      | CON                                  | TACT TIME                                      |                                  | REMARKS  | •           |                               |
| LEAD | ) AGENCY  |   |                      |                                      |  |                                  |  |             |                               |
| FIRS | T SUPPORT AGENCY  |   |                      |                                      |  |                                  |  |             |                               |
| SEC  | OND SUPPORT AGENCY  |   |                      |                                      |  |                                  |  |             |                               |
|      | D SUPPORT AGENCY  |   |                      |                                      |  |                                  | 1  |             |                               |



# Follow Up Report – June 12<sup>th</sup> 2018 Sewage Spill #18-223

### **Description of Spill:**

As the ground started to thaw, the building sank into the ground which induced strain on the connection for the discharge line. This resulted in the line disconnecting and when the lift station level reached its preset level the pumps started and the effluent discharged inside the building and eventually leaked onto the ground. The impacted area is minimal and did not reach any water bodies.

### **Spill Location:**

The spill occurred at the Meliadine main camp sewage treatment plant. The fluid flowed from the lift station, pasted the sewage treatment plant, and ceased flowing approximately 20m from the source. The spill covered an area of approximately  $10m^2$ .



Figure 1: View from above – Main Camp: Location of lift station piping (source of leak) and spill area.

## Spill cause:

The building housing the STP sunk into the ground due to thawing ground conditions causing the discharge line to disconnect from the lift station.

## **Spill response:**

Sewage was removed with a hydro suction truck and stored for sewage treatment discharge.





# Canadä NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | REPORT DATE: MONTH – DAY 07-08-2018       | -YEAR  |   | 10:55  |                         | ORIGINAL SPILL REPORT,   | REPORT NUMBER                        |
|------|---|--|---|--|-------------------------|--|--------------------------------------|
| В    | OCCURRENCE DATE: MONTH                    | – DAY – YEAR   |   | 10:55  |                         | UPDATE #<br>THE ORIGINAL SPILL REPORT                            | 18 - 259                             |
| С    | LAND USE PERMIT NUMBER (  KVPL11D01       |  |   | 2AM-ME   | CE NUMBER (IF           | APPLICABLE)  |                                      |
| D    | GEOGRAPHIC PLACE NAME C Meliadine Gold Pi |  | N FROM NAMED LO   | □ NWT  | <b>X</b> NUNAVUT        | ☐ ADJACENT JURISDICTION  | OR OCEAN                             |
| Е    | LATITUDE DEGREES <b>62</b>                | MINUTES 47   | SECONDS 58  | 122011220  | 92                      |  | econds 48                            |
| F    | RESPONSIBLE PARTY OR VES                  |  |   | rty address or of<br>, Rankin Inlet,                     |                         |  |                                      |
| G    | ANY CONTRACTOR INVOLVED  None             | )  | CONTRACTOR AD   | DDRESS OR OFFICE LO                                      | OCATION                 |  |                                      |
|      | PRODUCT SPILLED  Suspended Solids         | s (TSS)  | QUANTITY IN LITE 670 mg/L                               | RES, KILOGRAMS OR C                                      | CUBIC METRES            | U.N. NUMBER  |                                      |
| Η    | SECOND PRODUCT SPILLED  None              | (IF APPLICABLE)  | QUANTITY IN LITE  | RES, KILOGRAMS OR C                                      | CUBIC METRES            | U.N. NUMBER  |                                      |
|      | SPILL SOURCE Snow melt contai             | ning sediment  | SPILL CAUSE<br>Freshet                                  |  |                         | AREA OF CONTAMINATION IN   | SQUARE METRES                        |
| J    | FACTORS AFFECTING SPILL O                 | OR RECOVERY  | DESCRIBE ANY A  | SSISTANCE REQUIRED                                       | )                       | HAZARDS TO PERSONS, PRO  | PERTY OR EQUIPMENT                   |
| K    | TSS concentratio                          | n and other water<br>centrations excee<br>nse 2AM-MEL163<br>It will be provided<br>ennifer Brown/ Da | r quality para<br>ded criteria<br>11, Part D, ite<br>I. | ameters. The<br>of 670 mg/L, a<br>em 18.<br>819-759-3555 | laborator<br>as per the | ooratory analysis to<br>y results were rece<br>obligations under | ived on July                         |
| L    | REPORTED TO SPILL LINE BY  Jennifer Brown | POSITION Env. Coordin  |   | MPLOYER Agnico Eagle                                     |                         | cation calling from  Meliadine Project                           | TELEPHONE<br>819.759.3555            |
| M    | ANY ALTERNATE CONTACT Randy Schwandt      | POSITION Environment   |   | MPLOYER Agnico Eagle                                     |                         | TERNATE CONTACT  Meliadine Project CATION                        | ALTERNATE TELEPHONE 819.759.3555     |
|      |   |  | REPORT LINE   | USE ONLY   |                         |  |                                      |
| Ν    | RECEIVED AT SPILL LINE BY                 | POSITION   | E   | MPLOYER  |                         |  | REPORT LINE NUMBER                   |
| LEA  | <br>DAGENCY□EC□CCG□C                      | STATION OPERATOR  GNWT GN GILA GINAC   | □ NEB □ TC  | SIGNIFICANCE   |                         |  | (867) 920-8130<br>US □ OPEN □ CLOSED |
| AGE  | NCY                                       | CONTACT NAME   |   | CONTACT TIME   |                         | REMARKS  |                                      |
| LEAI | D AGENCY                                  |  |   |  |                         |  |                                      |
| FIRS | ST SUPPORT AGENCY                         |  |   |  |                         |  |                                      |
| SEC  | OND SUPPORT AGENCY                        |  |   |  |                         |  |                                      |
|      |   |  |   |  |                         |  |                                      |



## Follow Up Report: #18-259 June 17, 2018 Itivia Surface Water Run-off

### **Description of Exceedance:**

While conducting a routine inspection on June 17th, surface run-off water was observed at sampling station MEL-SR9 east of the Itivia Laydown and Storage Facility Pad. Samples were collected for laboratory analysis to assess the TSS concentration and other water quality parameters. The laboratory results were received on June 20, 2018 and TSS concentrations were 670 mg/L and exceeded criteria of 100 mg/L, as per the obligations under the Nunavut Water Board License 2AM-MEL1631, Part D, item 18.

The sampling location is referred to as MEL-SR9 and is shown in Figure 1.



Figure 1: Sample location MEL-SR9 shown east of the Itivia Laydown

## Spill Cleanup:

Straw logs were installed downstream of the source to minimize TSS reaching Melvin Bay.

## Spill Cause and Corrective Measures

Run-off was caused by snow melting inside and outside the site disturbance area. Silt fences and straw logs have been installed upstream and downstream of the site and are inspected weekly. A third party consultant has inspected the area to recommend improvements to mitigate and reduce erosion and sediment control.





# **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α           | REPORT DATE: MONTH – DAY - <b>07-08-2018</b>   |   |  |   |  |  | ▼ORIGINAL SPILI  | L REPORT,  | REPORT NUMBER  |
|-------------|--|---|--|---|--|--|--|--|--|
| В           | OCCURRENCE DATE: MONTH   | – DAY – YEAR  |  |   | RENCE TIME   |  | ☐ UPDATE #<br>TO THE ORIGINAL  | SPILL REPORT   | 18 - 313   |
| ט           | 06-20-2018   | IE ADDI 10 ( = : = :  |  | 11:2  |  | -NOE   |  | . SI ILL IILI OIII   |  |
| С           | LAND USE PERMIT NUMBER (I  |   |  |   | 2BB-M  | EL1424   | (IF APPLICABLE)  |  |  |
| D           | GEOGRAPHIC PLACE NAME O  Meliadine Gold Pr   |   | D DIRECTION FROM NAMED L   | OCATION   | REGION   | I<br><b>X</b> NUNAVU                                       | T □ ADJACFN  | T JURISDICTION   | OR OCEAN   |
| _           | LATITUDE   |   |  |   | LONGITUDE  |  |  |  |  |
| Е           | DEGREES 63   | MINUTES 1   | SECONDS 2  |   | DEGREES  | 92   | MINUTES  | <b>11</b> s  | ECONDS 7   |
| F           | RESPONSIBLE PARTY OR VES Agnico Eagle Min  |   | RESPONSIBLE Meliadin   |   |  |  | on<br>ut, X0C 0G0  | )  |  |
| G           | ANY CONTRACTOR INVOLVED  None  | )   | CONTRACTOR   | ADDRESS   | OR OFFICE  | LOCATION   |  |  |  |
| Н           | PRODUCT SPILLED  TSS   |   | QUANTITY IN L<br>260 mg/l  |   | OGRAMS OF  | CUBIC METRE  | U.N. NUMBEF  | 3  |  |
| П           | SECOND PRODUCT SPILLED ( None  | (IF APPLICABLE)   | QUANTITY IN L  | ITRES, KIL  | OGRAMS OF  | CUBIC METRE  | S U.N. NUMBEF  | 3  |  |
|             | SPILL SOURCE Old Landfill  |   | SPILL CAUSE<br>Freshet I   | run-of  | f  |  | AREA OF CO   | NTAMINATION IN   | SQUARE METRES  |
| J           | FACTORS AFFECTING SPILL C  | OR RECOVERY   | DESCRIBE ANY   | ASSISTA   | NCE REQUIR   | ED   | HAZARDS TO   | PERSONS, PRO   | PERTY OR EQUIPMENT                                     |
| K           | While conducting of the old Landfill within the footprir laboratory analysi laboratory results per the obligation A follow-up report Please contact Je | . Flow did nt and wat is to asses s were rece s under th t will be po- nnifer Bro | not go into the re<br>er management in<br>ss the TSS concer<br>eived on July 6th a<br>le Nunavut Water<br>rovided. | eceiving<br>offrastr<br>ntration<br>and TS<br>Board | g environments generally g | onment a<br>of the m<br>ther wate<br>entration<br>e 2BB-MI | nd was obs<br>ine. Sample<br>er quality pa<br>s exceeded<br>EL1424, Pa | served to kes were co<br>arameters<br>dicriteria o<br>rt D, item | oe contained<br>ollected for<br>. The<br>f 15 mg/L, as |
| L           | REPORTED TO SPILL LINE BY  Jennifer Brown  |   | v Coordinator  | Agni  | <sup>ER</sup><br>co Eagl   | e  | Meliadine  |  | ELEPHONE<br>8197593555                                 |
| M           | ANY ALTERNATE CONTACT  Dan Gorton  | POSITION Env C  | oordinator   | EMPLOY<br><b>Agni</b>                               | <sub>ER</sub><br>co Eagl   |  | ALTERNATE CONT<br>Meliadine  |  | ALTERNATE TELEPHONE 8197593555                         |
|             |  | l   | REPORT LIN   | _   |  |  |  | <u> </u>   |  |
| N           | RECEIVED AT SPILL LINE BY  | POSITION  |  | EMPLOY  | ER   |  | LOCATION CALLE   | D F  | REPORT LINE NUMBER                                     |
| L' <b>'</b> |  | STATION O   | PERATOR  |   |  |  | YELLOWKNIFE, N   | г (  | 867) 920-8130  |
|             | AGENCY DEC DCCG DG   |   | ILA □ INAC □ NEB □ TC  |   |  | MINOR 🗆 MA   | JOR   UNKNOWN  | FILE STATE   | JS □ OPEN □ CLOSED                                     |
| AGE         | NCY  | CONTACT NAME  |  | CON   | TACT TIME  |  | REMARKS  |  |  |
| LEAD        | ) AGENCY   |   |  |   |  |  |  |  |  |
| FIRS        | T SUPPORT AGENCY   |   |  |   |  |  |  |  |  |
| SEC         | OND SUPPORT AGENCY   |   |  |   |  |  |  |  |  |
| THIR        | D SUPPORT AGENCY   |   |  |   |  |  |  |  |  |



## Follow Up Report: #18-313 June 20, 2018 Itivia Surface Water Run-off

### **Description of Exceedance:**

While conducting a routine inspection on June 20th, surface run-off water was observed at sampling station MEL-SR8 east of the Itivia Laydown and Storage Facility Pad. Samples were collected for laboratory analysis to assess the TSS concentration and other water quality parameters. The laboratory results were received on July 6, 2018 and TSS concentrations were 260 mg/L and exceeded the criteria of 100 mg/L, as per the obligations under the Nunavut Water Board License 2AM-MEL1631, Part D, item 18.

The sampling location is referred to as MEL-SR8 and is shown in Figure 1.



Figure 1: Sample location MEL-SR8 shown east of the Itivia Laydown

## **Spill Cleanup:**

Straw logs were placed downstream of the source to reduce TSS flow to Melvin Bay.

## Spill Cause and Corrective Measures

Run-off was caused by snow melting inside and outside the site disturbance area. Silt fences and straw logs have been installed upstream and downstream of the site and are inspected weekly. A third party consultant has inspected the area to recommend improvements to mitigate and reduce erosion and

| sediment control. The consultant's findings on August 24 <sup>th</sup> | will be summarized in | a final report and issued | to regulators |
|--|-----------------------|---------------------------|---------------|
|  |                       |                           |               |
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|  |                       |                           |               |
|  |                       |                           |               |





# Canadä NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α                    | REPORT DATE: MONTH – DAY <b>07-08-2018</b>  | -YEAR   |   | 1 10:50                                       |   | ORIGINAL SPILL REPORT,                    | REPORT NUMBER   |                                |  |
|----------------------|---|---|---|---|---|---|---|--------------------------------|--|
| В                    | OCCURRENCE DATE: MONTH  |   | 000U  |   | 1-6   |   | UPDATE #<br>THE ORIGINAL SPILL REPOR                            | 18 - <b>287</b>                |  |
| С                    | KVPL11D01   | IIT NUMBER (IF APPLICABLE)  01  |   |   | WATER LICENCE NUMBER (IF 2AM-MEL1631          |   | APPLICABLE)   |                                |  |
| D                    | Meliadine Gold P  | RAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION   REGION   REGION   NWT NUNAVUT   ADJACENT JURISDICTION OR OCEA |   |   |   |   | ON OR OCEAN   |                                |  |
| Ε                    | LATITUDE DEGREES <b>63</b>  | MINUTES 2   | LONGITUDE<br>DEGREES 9  | )2  | MINUTES 13                                    | SECONDS 34                                |   |                                |  |
| F                    | RESPONSIBLE PARTY OR VER  |   | RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION  Meliadine, Rankin Inlet, Nunavut, X0C 0G0 |   |   |   |   |                                |  |
| G                    | ANY CONTRACTOR INVOLVED  None   | D   | CONTRACTOR ADDRESS OR OFFICE LOCATION   |   |   |   |   |                                |  |
|                      | PRODUCT SPILLED  Sewage Sludge  |   | QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES U.N. NUMBER ~200 L                        |   |   |   |   |                                |  |
| Н                    | SECOND PRODUCT SPILLED  None  | (IF APPLICABLE)   | QUANTITY IN LIT   | QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES |   |   | U.N. NUMBER   |                                |  |
|                      | SPILL SOURCE Sewage Treatmer  | nt Plant (STP)  | SPILL CAUSE  Equipment failure  |   | AREA OF CONTAMINATION IN SQUARE METRES  10 m2 |   |   |                                |  |
| J                    | FACTORS AFFECTING SPILL C Caribou Migration   |   | OVERY DESCRIBE ANY ASSISTANCE REQUIRED  |   |   | HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT |   |                                |  |
| K                    | night a pump failed on the membrane train #2. Approximately 200 L outside the STP onto the ground. The membrane #1 continue running normally, but the recirculating sludge was backfilling the membrane #2 tank as there is no check valve on the three way junction for the activated sludge recirculating pipe. This action overfilled the tank and caused overflow. A check valve will be installed. The impacted area is with the footprint of the mine and did not reach any water bodies.  A follow-up report will be provided.  Please contact Jennifer Brown/ Dan Gorton @ 819-759-3555 EXT: 4603996 (or)  Meliadine Environmental Tech - Ext: 4603903 or 4603925 |   |   |   |   |   |   |                                |  |
| L                    | POSITION  Jennifer Brown  POSITION  Sr. Env. Coordinateo  |   | dinateor  |   |   | CATION CALLING FROM  Meliadine Project    | TELEPHONE<br>8197593555   |                                |  |
| M                    | ANY ALTERNATE CONTACT  Dan Gorton   |   |   | Agnic   | R<br>Co Eagle                                 |   | ternate contact<br><b>/leliadine Project</b>                    | ALTERNATE TELEPHONE 8197593555 |  |
| REPORT LINE USE ONLY |   |   |   |   |   |   |   |                                |  |
| Ν                    | RECEIVED AT SPILL LINE BY POSITION STATION OPERATOR   |   |   |   |   |   | DCATION CALLED REPORT LINE NUMBER ELLOWKNIFE, NT (867) 920-8130 |                                |  |
| LEAD                 | LEAD AGENCY   EC   CCG   GNWT   GN   ILA   INAC   NEB   TC  |   | SIGNI   | SIGNIFICANCE   MINOR   MAJOR   UNKNOWN        |   |   | ATUS   OPEN   CLOSED  |                                |  |
| AGE                  | AGENCY CONTACT NAME CO  |   | CONT  | CONTACT TIME REMARKS                          |   |   |   |                                |  |
| LEA                  | LEAD AGENCY   |   |   |   |   |   |   |                                |  |
| FIRS                 | T SUPPORT AGENCY  |   |   |   |   |   |   |                                |  |
| SEC                  | SECOND SUPPORT AGENCY   |   |   |   |   |   |   |                                |  |
| THIR                 | D SUPPORT AGENCY  |   |   |   |   |   |   |                                |  |



# Follow Up Report – 18-287 July 8<sup>th</sup> 2018 Sewage Spill

## **Description of Spill:**

On July 8, 2018, a sewage sludge spill occurred at the Main-STP at the Meliadine Site. During the night a pump failed on the membrane train #2. Approximately 200 L overflowed outside the STP onto the ground.

## **Spill Location:**

The spill occurred at the Meliadine main camp sewage treatment plant. The sewage flowed from the sewage treatment plant to the ground. The impacted area is within the footprint of the mine and did not reach any water bodies.



**Figure 1:** View from above – Main Camp: Location of Sewage Treatment Plant.

## Spill cause:

The membrane #1 continue running normally, but the recirculating sludge was backfilling the membrane #2 tank as there was no check valve on the three way junction for the activated sludge recirculating pipe. This action overfilled the tank and caused overflow.

## **Spill response:**

Sewage was removed with a hydro suction truck and stored for sewage treatment discharge.

## **Spill Mitigation:**

A check valve was installed.





REPORT DATE: MONTH – DAY – YEAR

07-16-2018

# **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

REPORT TIME

18:40

NT-NU 24-HOUR SPILL REPORT LINE

▼ORIGINAL SPILL REPORT,

OR

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

REPORT NUMBER

| В   | OCCURRENCE DATE: MONTH  | I – DAY – YEAR   |                                      |  |  | ☐ UPDATE #<br>TO THE ORIGINAL SPII     | UPDATE # O THE ORIGINAL SPILL REPORT      |                          |                                     |  |
|---|---|--|--------------------------------------|--|--|--|---|--------------------------|-------------------------------------|--|
|   | LAND USE PERMIT NUMBER  KVPL11D01   |  | WATER LICENCE NUMBER (IF 2AM-MEL1631 |  | R (IF APPLICABLE)  |  |   |                          |                                     |  |
| D   | GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION  Meliadine Gold Project  NWT XN   |  |                                      |  | <b>X</b> NUNAVU  | UNAVUT                                 |   |                          |                                     |  |
|   | LATITUDE  DEGREES 62 MINUTES 81 SECONDS 52  |  | 2                                    | LONGITUDE  DEGREES 92  MINUTES 14  SECON                                 |  |  | ECONDS 42                                 |                          |                                     |  |
|   | RESPONSIBLE PARTY OR VE Agnico Eagle Mir  | SSEL NAME  | RESPONSIBLE                          | PARTY AD   | DEGREES 92 MINUTES 14 SECONDS 42 TY ADDRESS OR OFFICE LOCATION  Rankin Inlet, Nunavut, X0C 0G0 |  |   |                          |                                     |  |
| G   | ANY CONTRACTOR INVOLVEI<br>Inukshuk Constr  | CONTRACTOR ADDRESS OR OFFICE LOCATION  |                                      |  |  |  |   |                          |                                     |  |
|   | PRODUCT SPILLED  Hydraulic Oil  | DDUCT SPILLED QUAN   |                                      | DUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES                            |  |  | ES U.N. NUMBER                            |                          |                                     |  |
| H   | SECOND PRODUCT SPILLED  None  | PILLED (IF APPLICABLE) QUANTITY IN LITRES, K   |                                      |  | OGRAMS OF  | CUBIC METRI                            | U.N. NUMBER                               |                          |                                     |  |
|   | spill source<br><b>Equipment - Roll</b> e   |  |                                      | AREA OF CONTAIN  | MINATION IN  | SQUARE METRES                          |   |                          |                                     |  |
| J   | FACTORS AFFECTING SPILL ( None  | OR RECOVERY  | DESCRIBE ANY                         | DESCRIBE ANY ASSISTANCE REQUIRED HAZARDS TO PERSONS, PROPERTY OR EQUIPME |  |  |   | PERTY OR EQUIPMENT       |                                     |  |
| K   | reported internall<br>explained that the<br>feeds into the bay<br>disperse into the<br>This spill is being<br>A follow-up report<br>Dan Gorton 8197<br>Jessica Huza 819 | oil from equipment spilled to road base material on the bypass road. The spill was cleaned up and reported internally as it was outside the 31m high water mark. After discussion with INAC it was explained that the spill should be reported as it was within 31m of a fish bearing waterway, which feeds into the bay. The volume was estimated at 5L. The spill was cleaned up before it had time to disperse into the road base.  This spill is being reported as per part H, item 9 of the 2AM-MEL1631 Water License.  A follow-up report will be issued.  Dan Gorton 819759-3555 x 4603996  Jessica Huza 819759-3555x 4608170 |                                      |  |  |  |   |                          |                                     |  |
| L   | REPORTED TO SPILL LINE BY  Dan Gorton  POSITION  Env. Coordinator   |  | inator                               |  |  | LOCATION CALLING FR<br>Meliadine Pro   |   | ELEPHONE<br>819.759.3555 |                                     |  |
| М   | ANY ALTERNATE CONTACT  Jessica Huza   | POSITION<br>Env. Superv  | visor                                | Agnic  | R<br>Co Eagle  | Э                                      | ALTERNATE CONTACT  Meliadine Pro LOCATION |                          | REPRINTE TELEPHONE 819.759.3555     |  |
|   |   |  | REPORT LIN                           | IE USE ON  | ILY  |  |   |                          |                                     |  |
| N   | RECEIVED AT SPILL LINE BY   | POSITION STATION OPERATOR  | 3                                    | EMPLOYE  | ER   |  | LOCATION CALLED YELLOWKNIFE, NT           |                          | REPORT LINE NUMBER<br>867) 920-8130 |  |
| LEAD AGENCY   EC   CCG   GNWT   GN   ILA   INAC |   | IAC □ NEB □ TC   | TC SIGNIFICANCE   MINOR   MAJOR      |  | JOR 🗆 UNKNOWN  | R □ UNKNOWN FILE STATUS □ OPEN □ CLOSE |   |                          |                                     |  |
| AGEN  | ICY   | CONTACT NAME   |                                      | CONTACT TIME   |  | REMARKS                                |   |                          |                                     |  |
| LEAD AGENCY                                     |   |  |                                      |  |  |  |   |                          |                                     |  |
| FIRS  | T SUPPORT AGENCY  |  |                                      |  |  |  |   |                          |                                     |  |
| SECC  | OND SUPPORT AGENCY  |  |                                      |  |  |  |   |                          |                                     |  |
| THIR  | D SUPPORT AGENCY  |  |                                      |  |  |  |   |                          |                                     |  |



# Follow Up Report: #18-279 July 11, 2018 Itivia Hydraulic Hose Failure

### **Description of Incident:**

While conducting an inspection of the Itivia construction site on July 11th, it was noted that hydraulic oil from equipment spilled to the road base material on the bypass road. The spill was cleaned up and reported internally as it was observed as outside the 31 m high water mark. After discussion with INAC it was explained that the spill should be reported as it was within 31 m of a fish bearing waterway, which feeds into Melvin Bay. The volume was estimated at 5 L.

## **Spill Cleanup:**

The spill was cleaned up with absorbent pads before it had time to disperse into the road base.

#### **Spill Cause and Corrective Measures**

The spill was caused by equipment failure. Maintenance is scheduled regularly for all equipment at Site and spill kits are required to be stored inside all vehicles. The Environment Department conducts quarterly vehicle spill kit inventory audits to ensure availability and quick response to a timely and efficient cleanup to mitigate spill migration.





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α   | <b>7-23-2018</b>                            | -YEAR                         |   | PORT TIME<br>8:30 |                                 | <b>IX</b> <sup>©</sup> | ORIGINAL SPILL REPORT,  |                                | REPORT NUMBER   |
|---|---|-------------------------------|---|-------------------|---------------------------------|------------------------|---|--------------------------------|---|
| В   | OCCURRENCE DATE: MONTH 7-20-2018            | – DAY – YEAR                  |   | CCURRENC<br>8:00  | ETIME                           |                        | UPDATE #<br>THE ORIGINAL SPILL REPO   | RT                             | <u> 18 - 289 </u>                                     |
| С   | LAND USE PERMIT NUMBER (  KVPL11D01         |                               |   | 2 <i>F</i>        | ER LICENCE NUMB<br>NM-MEL163    |                        | APPLICABLE)   |                                |   |
| D   | Meliadine Gold P                            | OR DISTANCE AND DIRECTION FRO | OM NAMED LOCA                           |                   | REGION<br>□ NWT <b>X</b> NUN    | IAVUT                  | ☐ ADJACENT JURISDICT  | ION C                          | OR OCEAN  |
| Ε   | LATITUDE DEGREES <b>63</b>                  | MINUTES 1 SEC                 | onds 43                                 |                   | GITUDE<br>IREES <b>92</b>       |                        | MINUTES 10  | SE                             | conds 9   |
| F   | RESPONSIBLE PARTY OR VES Agnico Eagle Min   |                               |   |                   | ss or office Loc<br>Inlet, Nuna |                        | X0C 0G0   |                                |   |
| G   | ANY CONTRACTOR INVOLVED  None               | CO                            | NTRACTOR ADD                            | RESS OR (         | OFFICE LOCATION                 |                        |   |                                |   |
|   | PRODUCT SPILLED  Treated Sewage E           |                               | ANTITY IN LITRE  3000L                  | ES, KILOGR        | AMS OR CUBIC ME                 | ETRES                  | U.N. NUMBER   |                                |   |
| Н   | SECOND PRODUCT SPILLED  None                | (IF APPLICABLE) QU.           | ANTITY IN LITRE                         | ES, KILOGR        | AMS OR CUBIC ME                 | TRES                   | U.N. NUMBER   |                                |   |
|   | SPILL SOURCE Water Truck                    |                               | <sub>LL CAUSE</sub><br><b>pen valve</b> | on tru            | ck                              |                        | AREA OF CONTAMINATION 500m2   | IN S                           | QUARE METRES  |
| J   | FACTORS AFFECTING SPILL C Seepage into road |                               | SCRIBE ANY AS                           | SISTANCE I        | REQUIRED                        |                        | HAZARDS TO PERSONS, F   | PROP                           | ERTY OR EQUIPMENT                                     |
| CP1. On his way a colleague contacted him informing that the truck we The truck driver stopped and found that the valve rear was opened, proportion Approximately 3000 L of treated effluent was spilled on the road between CP1 for an estimated distance of 500m. The treated effluent did not example and had evaporated or seeped into the road making it difficult to clear not flow outside of the site's managed water area or into any waterbook further details will be provided Environmental Coordinator - Dan Gorton: Ext 3996 Environmental Technician - Alex Gauthier: Ext 3903 or 3925 |   |                               |   |                   |                                 |                        | roceeded to clos<br>een the explorati<br>xtend beyond the<br>n it up. The treat | r.<br>ing<br>ion<br>e ro<br>ed | the valve.<br>camp and<br>oad surface<br>effluent did |
| L   | REPORTED TO SPILL LINE BY  Dan Gorton       | POSITION  Env Coordinator     |   | IPLOYER<br>Ignico | Eagle                           |                        | ocation calling from  Meliadine Project   |                                | ELEPHONE<br>3197593555                                |
| M   | ANY ALTERNATE CONTACT  Alex Gauthier        | POSITION Env Technician       |   | IPLOYER<br>Agnico | Eagle                           |                        | rernate contact<br><b>leliadine Project</b>                                     | LTERNATE TELEPHONE 3197593555  |   |
|   |   | F                             | EPORT LINE U                            | ISE ONLY          |                                 |                        |   |                                |   |
| Ν   | RECEIVED AT SPILL LINE BY                   | POSITION<br>STATION OPERATOR  | EM                                      | IPLOYER           |                                 |                        | CATION CALLED<br>LLOWKNIFE, NT  |                                | EPORT LINE NUMBER<br>67) 920-8130                     |
| LEA   | AGENCY DEC DCCG DC                          | GNWT GN GILA GINAC G          | IEB □TC                                 | SIGNIFICA         | NCE   MINOR                     |                        |   |                                | S □ OPEN □ CLOSED                                     |
| AGE   | NCY   | CONTACT NAME                  |   | CONTACT           | TIME                            |                        | REMARKS   |                                |   |
| LEA   | ) AGENCY                                    |                               |   |                   |                                 |                        |   |                                |   |
| FIRS  | T SUPPORT AGENCY                            |                               |   |                   |                                 |                        |   |                                |   |
| SEC   | OND SUPPORT AGENCY                          |                               |   |                   |                                 |                        |   |                                |   |
| THIR  | D SUPPORT AGENCY                            |                               |   |                   |                                 |                        |   |                                |   |



# Follow Up Report: #18-289 July 20, 2018 Treated Sewage Effluent

### **Description of Incident:**

On July 20th, after loading a water truck with treated water from the treated retention tank at the Exploration camp's Sewage Treatment Plant, the operator proceeded to drive towards the discharge location at CP1. During transport, the operator was advised by an observer that the truck was leaking water.

#### Spill Response & Cleanup:

The truck driver stopped and found that the valve rear was opened and closed the valve.

Approximately 3000 L of treated effluent had drained from the water truck to the road, between the exploration camp and CP1, an estimated distance of 500 m. The treated effluent did not extend beyond the road surface and had evaporated or seeped into the road making it difficult to clean it up. The effluent was treated and did not flow outside the Site's managed water area or into any water body.

## **Spill Cause and Corrective Measures**

The spill was caused by human error with the training and procedure not followed. The employee has been suspended from operating mobile equipment and is required to successfully complete additional equipment training prior to being assigned equipment operating tasks.





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α  | REPORT DATE: MONTH – DAY 10-01-2018        | – YEAR                  |                  | REPORT TII  | ИE                   |             | ▼ORIGINAL SPILL   | REPORT,  | REPORT NUMBER                   |
|--|--|-------------------------|------------------|-------------|----------------------|-------------|---|--|---------------------------------|
|  | OCCURRENCE DATE: MONTH                     | – DAY – YEAR            |                  | OCCURREN    | <br>ICE TIME         |             | OR  □ UPDATE #  |  | 18 - 409                        |
| В  | 07-23-2018                                 |                         |                  | 15:00       |                      |             | TO THE ORIGINAL   | SPILL REPORT                                       | 10 - 409                        |
| С  | LAND USE PERMIT NUMBER (                   | (IF APPLICABLE)         | ,                |             | ATER LICENCE  AM-MEI |             | (IF APPLICABLE)   |  |                                 |
| D  | GEOGRAPHIC PLACE NAME OF Meliadine Gold Pi |                         | ON FROM NAMED LO | OCATION     | REGION               |             |   |  |                                 |
|  | LATITUDE                                   | Toject                  |                  | 110         | □ NWT<br>ONGITUDE    | X NUNAVL    | JT □ ADJACENT   | JURISDICTION                                       | OR OCEAN                        |
| E  | DEGREES <b>63</b> RESPONSIBLE PARTY OR VES | MINUTES 2               | SECONDS 15       | D           | EGREES 9             |             |   | <b>13</b> SE                                       | ECONDS 06                       |
| F  | Agnico Eagle Min                           |                         |                  |             |                      |             | ut, X0C 0G0   |  |                                 |
| G  | ANY CONTRACTOR INVOLVED  None              | )                       | CONTRACTOR A     | ADDRESS O   | R OFFICE LOC         | CATION      |   |  |                                 |
|  | PRODUCT SPILLED  Treated effluent          |                         | 4.39 mg/l        | ,           |                      |             | U.N. NUMBER   |  |                                 |
| Η  | SECOND PRODUCT SPILLED  None               | (IF APPLICABLE)         | QUANTITY IN LIT  | TRES, KILOC | RAMS OR CU           | JBIC METRE  | S U.N. NUMBER   |  |                                 |
|  | SPILL SOURCE                               |                         | SPILL CAUSE      |             |                      |             | AREA OF CON   | TAMINATION IN                                      | SQUARE METRES                   |
|  | Mel-14                                     |                         | NWB Lice         |             |                      | ceede       |   |  |                                 |
| J  | FACTORS AFFECTING SPILL O                  | OH RECOVERY             | NA               | ASSISTANC   | E REQUIRED           |             | NA  | PERSONS, PRO                                       | PERTY OR EQUIPMENT              |
| mg/L which exceeded the permitted discharge limit of 2 mg/L. When the exceed the lab was requested to re-analyze the sample to determine if the result was a sample had been disposed of and re-analysis was not possible at the date of the This spill is being reported as per the 2AM-MEL1631 Nunavut Water Board Lica A follow up report will be issued.  Environmental Coordinator - Dan Gorton/Jennifer Brown: Ext 4603996 |  |                         |                  |             |                      |             | oncentration the exceed result was and the date of the Board Lice | n was fou<br>lance was<br>n outlier;<br>ne request | however, the<br>i.<br>F item 3. |
| L  | REPORTED TO SPILL LINE BY  Jennifer Brown  | POSITION  Sr.Environm   |                  |             |                      | Meliadine F |   | ELEPHONE<br>8198565097                             |                                 |
| M  | ANY ALTERNATE CONTACT  Dan Gorton          | POSITION<br>Environment | t Coord          | EMPLOYER    |                      |             | ALTERNATE CONTA<br>Meliadine I                                    | CT A   | RITERNATE TELEPHONE 8197593555  |
|  | ı  | <u> </u>                | REPORT LINE      | E USE ONL   | Y                    |             |   |  |                                 |
| Ν  | RECEIVED AT SPILL LINE BY                  | POSITION                |                  | EMPLOYER    |                      |             | LOCATION CALLED   | F  | REPORT LINE NUMBER              |
| 1 1  |  | STATION OPERATOR        |                  |             |                      |             | YELLOWKNIFE, NT   | (1   | 867) 920-8130                   |
| LEAI   | DAGENCY DEC DCCG DC                        | GNWT □ GN □ ILA □ INA   | C NEB TC         | SIGNIFI     | CANCE   MI           | NOR 🗆 MA    | JOR UNKNOWN   | FILE STATU   | JS □ OPEN □ CLOSED              |
| AGE  | NCY  | CONTACT NAME            |                  | CONTAC      | CT TIME              |             | REMARKS   |  |                                 |
| LEAI   | D AGENCY                                   |                         |                  |             |                      |             |   |  |                                 |
| FIRS   | T SUPPORT AGENCY                           |                         |                  |             |                      |             |   |  |                                 |
| SEC  | OND SUPPORT AGENCY                         |                         |                  |             |                      |             |   |  |                                 |
|  | 1  |                         |                  |             |                      |             |   |  |                                 |



## Follow Up Report: #18-409 July 23, 2018 MEL-14 Aluminum Concentration Criteria Exceeded

### **Description of Incident:**

A sample of treated water from MEL-14 (final effluent sampling port prior to discharge to Meliadine Lake) was collected on July 23, 2018. Upon review of the laboratory analysis results, the total aluminum concentration was found to be 4.39 mg/L which exceeded the permitted discharge limit of 2 mg/L. As per the obligations under the Nunavut Water Board License 2AM-MEL1631, Part F, item 3 pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act., samples were collected for laboratory analysis to assess the total metal concentrations and other water quality parameters during final effluent discharge at MEL-14. The laboratory results were received on August 8, 2018, however, the exceeded criteria for the total aluminum concentration was not observed at the initial time of the data review and data input. During the quarterly reporting for MDMER-EEM (RIIS) on October 1, 2018, the exceeded concentration was observed and reported immediately.

#### **Exceedance Cause and Corrective Measures**

The exceeded criteria for final effluent discharge criteria for total aluminum concentrations is assumed to be a laboratory error. When the exceeded criteria was observed, the lab was requested to re-analyze the sample to determine if the reported concentration was a result of laboratory error; however, the sample had been disposed of and re-analysis was not possible at the date of the request.

When comparing the total aluminum concentrations from a sample collected and analyzed on the same day from MEL-13 (the discharge location at Meliadine Lake), total aluminum concentrations were also elevated (6.64 mg/L). Results for total aluminum concentration were then compared to results from 2018 sampling events. The results from July 23, 2018 had the maximum concentrations for both MEL-13 and MEL-14. Table 1 presents a summary of laboratory analysis for MEL-13 and MEL-14 in 2018 and includes the minimum, maximum and average total aluminum concentrations for samples collected in 2018. Figure 1 shows the aluminum concentrations for MEL-13 and MEL-14 in 2018. No other samples collected and analyzed in 2018 have exceeded criteria concentrations for total aluminum at MEL-14.

The Environment Department at Meliadine is currently implementing a data management system for laboratory results. Once it has been fully commissioned, it should mitigate delays with reporting criteria exceedances and improve the timing for requests that may be made if re-analysis is required at the laboratory.

Table 1 Summary of MEL-13 and MEL-14 Total Aluminum Analysis:

| MEL 13                   |               |           |           |           |           |           |          |           |           |           |
|--------------------------|---------------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|
| Date                     | 23-Jul-18     | 20-Aug-18 | 26-Aug-18 | 4-Sep-18  |           |           |          |           |           |           |
| Total Aluminum<br>(mg/L) | 6.64          | 0.0118    | 0.0098    | 0.0083    |           |           |          |           |           |           |
| Average                  | 1.6675        |           |           |           |           |           |          |           |           |           |
| Мах                      | 6.64          |           |           |           |           |           |          |           |           |           |
| Min                      | 0.0083        |           |           |           |           |           |          |           |           |           |
|                          |               |           |           |           |           |           |          |           |           |           |
| MEL 14                   |               |           |           |           |           |           |          |           |           |           |
| Date                     | 24-Jun-<br>18 | 1-Jul-18  | 10-Jul-18 | 15-Jul-18 | 23-Jul-18 | 29-Jul-18 | 5-Aug-18 | 13-Aug-18 | 19-Aug-18 | 26-Aug-18 |
| Total Aluminum<br>(mg/L) | 0.134         | 1.22      | 0.518     | 1.23      | 4.39      | 0.811     | 0.784    | 0.705     | 1.03      | 0.005     |
| Average                  | 1.0827        |           |           |           |           |           |          |           |           |           |
| Max                      | 4.39          |           |           |           |           |           |          |           |           |           |
| Min                      | 0.005         |           |           |           |           |           |          |           |           |           |

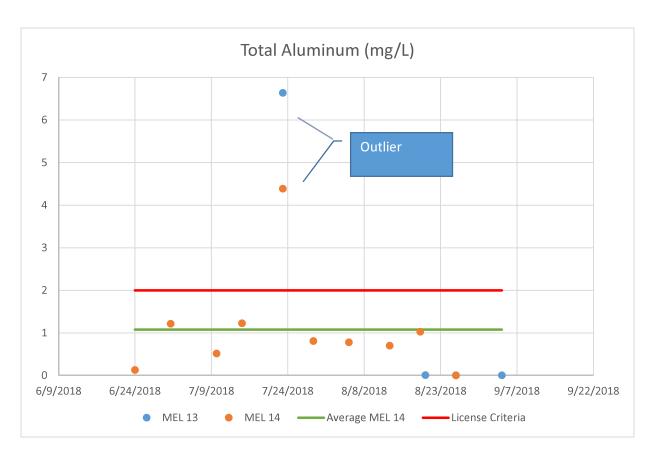


Figure 1: 2018 total aluminum concentrations at MEL-13 and MEL-14





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | REPORT DATE: MONTH – DAY 08-03-2018   | -YEAR   |  | 9:45   | I <b>X</b> ○                 | ORIGINAL SPILL REPORT,  | REPORT NUMBER                        |
|------|---|---|--|--|------------------------------|---|--------------------------------------|
| В    | OCCURRENCE DATE: MONTH  | – DAY – YEAR  |  | CCURRENCE TIME 9:25  |                              | UPDATE #<br>THE ORIGINAL SPILL REPORT                             | 18 - 308                             |
| С    | KVCL102J168   |   |  | water licence NU 2BB-MEL14   |                              | APPLICABLE)   |                                      |
| D    | Meliadine Gold P  | OR DISTANCE AND DIRECTION  roject   | FROM NAMED LOC   | □ NWT <b>X</b> N   | IUNAVUT                      | ☐ ADJACENT JURISDICTION   | I OR OCEAN                           |
| Ε    | DEGREES <b>63</b>   |   | SECONDS 24   | LONGITUDE DEGREES 92   |                              |   | ECONDS 7                             |
| F    | RESPONSIBLE PARTY OR VE Agnico Eagle Mir  |   |  | RTY ADDRESS OR OFFICE I  |                              |   |                                      |
| G    | ANY CONTRACTOR INVOLVED  None   | D   | CONTRACTOR ADD   | DRESS OR OFFICE LOCATION   | ON                           |   |                                      |
|      | PRODUCT SPILLED  Treated Water  |   | QUANTITY IN LITRE 1600 liters                                  | ES, KILOGRAMS OR CUBIC   | METRES                       | U.N. NUMBER   |                                      |
| Η    | SECOND PRODUCT SPILLED  None  | (IF APPLICABLE)   | QUANTITY IN LITRE  | ES, KILOGRAMS OR CUBIC   | METRES                       | U.N. NUMBER   |                                      |
|      | SPILL SOURCE Sewage Treatmen  |   | spill cause<br><b>Human Err</b>                                | or   |                              | AREA OF CONTAMINATION IN  | I SQUARE METRES                      |
| J    | FACTORS AFFECTING SPILL (   | OR RECOVERY   | DESCRIBE ANY AS  | SISTANCE REQUIRED  |                              | HAZARDS TO PERSONS, PRO   | PERTY OR EQUIPMENT                   |
| K    | Some water spille<br>No water migratic<br>cause of the incid<br>This spill is being | and the truck was ded down the bank to to Meliadine Lakedent. Upon complete greported as per particular and Brown/Daniel Gort | o the spillw<br>te was obse<br>tion, a follow<br>art H, item 4 | ay that was preversed. An investing up report will be of the 2BB-MEI | viously<br>gation<br>be issu | vused for the MEL-<br>is underway to de<br>ued.<br>Water Licence. | 07 discharge.<br>termine the         |
| L    | REPORTED TO SPILL LINE BY  Jennifer Brown   | POSITION Sr. Env. Coord   |  | IPLOYER<br>Agnico Eagle  |                              | cation calling from  leliadine Project                            | TELEPHONE<br>8197593555              |
| M    | ANY ALTERNATE CONTACT  Daniel Gorton  | POSITION Env. Coordina  |  | IPLOYER  Agnico Eagle  |                              | rernate contact<br>Reliadine Project                              | 8197593555                           |
|      | I   | 1   | REPORT LINE U  | SE ONLY  | 1                            | l   |                                      |
| Ν    | RECEIVED AT SPILL LINE BY   | POSITION  | EM   | MPLOYER  |                              | CATION CALLED   | REPORT LINE NUMBER                   |
| LEA  | L<br>DAGENCY□EC□CCG□(   | STATION OPERATOR  GNWT GN GILA INAC   | □ NEB □ TC   | SIGNIFICANCE   MINOR   |                              | LLOWKNIFE, NT   | (867) 920-8130<br>US □ OPEN □ CLOSED |
| AGE  | NCY   | CONTACT NAME  |  | CONTACT TIME   |                              | REMARKS   |                                      |
| LEA  | O AGENCY  |   |  |  |                              |   |                                      |
| FIRS | T SUPPORT AGENCY  |   |  |  |                              |   |                                      |
| SEC  | OND SUPPORT AGENCY  |   |  |  |                              |   |                                      |
| THIF | RD SUPPORT AGENCY   |   |  |  |                              |   |                                      |



## Follow Up Report: #18-308 August 2, 2018 Treated Sewage Effluent

### **Description of Incident:**

On August 2, 2018, the water truck operator was collecting the treated STP effluent from the retention tanks at MEL-07. The truck was overfilled and spilled out onto the road under the water truck. Some water spilled down the bank to the spillway that was previously used for the MEL-07 discharge.

## Spill Response & Cleanup:

When the truck operated observed that the treated effluent was overflowing, pumping was halted.

Approximately 1,600 liters of treated effluent water spilled to the access road behind wing "P" at the Exploration Camp and some observed spill towards the rock bed channel. No water migration to Meliadine Lake was observed and the treated water was quickly absorbed into the road or evaporated.

## **Spill Cause and Corrective Measures**

The spill was caused by human error with the training and procedure not followed. The supervisor of the employee has discussed corrective measure with the operator.





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | REPORT DATE: MONTH – DAY 09-15-2018       | –YEAR   |  | 15:0                    |   |         | RIGINAL SPILL REPORT,                 | REPORT NUMBER                      |
|------|---|---|--|-------------------------|---|---------|---------------------------------------|------------------------------------|
| В    | OCCURRENCE DATE: MONTH 8-19-2018          | – DAY – YEAR  |  | 000 8:00                | RENCE TIME  |         | IPDATE #<br>THE ORIGINAL SPILL REPORT | 18 - 378                           |
| С    | LAND USE PERMIT NUMBER (                  |   |  |                         | water licence numbe 2AM-MEL1631                               | R (IF / | APPLICABLE)                           |                                    |
| D    | GEOGRAPHIC PLACE NAME OF Meliadine Gold P |   | ECTION FROM NAMED L  | OCATION                 | □ NWT <b>X</b> NUNAV  | /UT     | ☐ ADJACENT JURISDICTION               | I OR OCEAN                         |
| Е    | DEGREES 63                                | MINUTES 2   | seconds 15   |                         | LONGITUDE DEGREES 92  |         | MINUTES 13                            | ECONDS 06                          |
| F    | RESPONSIBLE PARTY OR VES Agnico Eagle Min |   |  |                         | <sup>DDRESS</sup> OR OFFICE LOCA<br><b>nkin Inlet, Nuna</b> v |         | X0C 0G0                               |                                    |
| G    | ANY CONTRACTOR INVOLVED  None             | )   | CONTRACTOR   | ADDRES                  | S OR OFFICE LOCATION  |         |                                       |                                    |
|      | PRODUCT SPILLED  Treated effluent         |   |  |                         | LOGRAMS OR CUBIC METE<br>600 m3/d)                            | RES     | U.N. NUMBER                           |                                    |
| Η    | SECOND PRODUCT SPILLED  None              | (IF APPLICABLE)   | QUANTITY IN LI   | TRES, KI                | LOGRAMS OR CUBIC METF   | RES     | U.N. NUMBER                           |                                    |
|      | SPILL SOURCE Mel-14                       |   | SPILL CAUSE saline wa                                      | iter                    |   |         | AREA OF CONTAMINATION IN              | I SQUARE METRES                    |
| J    | FACTORS AFFECTING SPILL ON/A              | OR RECOVERY   | DESCRIBE ANY   | ASSISTA                 | ANCE REQUIRED   |         | HAZARDS TO PERSONS, PRO               | PERTY OR EQUIPMENT                 |
| K    | exceeded the per                          | mitted dischar<br>greported as p<br>t will be issue<br>al Coordinator | rge limit of 140<br>per the 2AM-MI<br>d.<br>- Dan Gorton/. | 00 mg<br>EL16:<br>Jenni | /L.<br>31 Nunavut Wate<br>fer Brown: Ext 3                    | er B    | ound to be 1430 n                     |                                    |
| L    | REPORTED TO SPILL LINE BY  Jessica Huza   |   | ervisor Env  | EMPLO'                  | rer<br>ico Eagle  |         | eliadine Project                      | TELEPHONE<br>8198565097            |
| M    | ANY ALTERNATE CONTACT  Dan Gorton         | POSITION Enviro Co  | ordinator  | EMPLO'                  | ren<br>ico Eagle  |         | ernate contact<br>eliadine Project    | 8197593555                         |
|      | I   | I   | REPORT LIN   | E USE C                 | DNLY  |         |                                       |                                    |
| Ν    | RECEIVED AT SPILL LINE BY                 | POSITION  |  | EMPLO'                  | YER   |         | CATION CALLED                         | REPORT LINE NUMBER                 |
| LEA  | AGENCY DEC DCCG DC                        | STATION OPERAT  |  | SIG                     | NIFICANCE   MINOR   M   |         | LOWKNIFE, NT  UNKNOWN FILE STAT       | (867) 920-8130<br>US  OPEN  CLOSED |
| AGE  | NCY                                       | CONTACT NAME  |  | cor                     | NTACT TIME  |         | REMARKS                               |                                    |
| LEA  | D AGENCY                                  |   |  |                         |   |         |                                       |                                    |
| FIRS | T SUPPORT AGENCY                          |   |  |                         |   |         |                                       |                                    |
| SEC  | OND SUPPORT AGENCY                        |   |  |                         |   |         |                                       |                                    |
| THIF | RD SUPPORT AGENCY                         |   |  |                         |   |         |                                       |                                    |



## Follow Up Report: #18-378 August 19, 2018 MEL-14 TDS Concentration Criteria Exceeded

#### **Description of Incident:**

A sample of treated water from MEL-14 (final effluent sampling port prior to discharge to Meliadine Lake) was collected on August 19, 2018. Upon review of the laboratory analysis results, the total dissolved solids (TDS) concentration was found to be 1,430 mg/L which exceeded the permitted discharge limit of 1,400 mg/L.

As per the obligations under the Nunavut Water Board License 2AM-MEL1631, Part F, item 3 pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act., samples were collected for laboratory analysis to assess TDS concentrations and other water quality parameters during final effluent discharge at MEL-14. The laboratory results were received on September 13, 2018 and reviewed and reported on September 15, 2018. With regards to your question on reporting delay, due to the remote location and the extensive list of parameters that we sample for the Mel-14 sample, the delay in receiving results from the lab is generally 3-4 weeks. This is because the lab sub-contracts part of the analysis to their sister lab in Burnaby BC, so it can take a while for the sample to be received and processed.

#### **Cause and Corrective Measures**

The sample was collected at 10:30 am on August 19, 2018. During this time, there was an unscheduled power outage and effluent release had stopped at the effluent water treatment plant (EWTP). Water was not pumped through the sampling port located at MEL-14 during this time. The person that conducted the sampling was a summer intern student who has returned to school and the sampling conditions and confirmation of the location that the sample was collected has not been verified. Based on the field parameter monitoring, the power outage, review of laboratory results from previous and post sampling events, the TDS concentrations reported from the laboratory analysis for MEL-14 on August 19, 2019 are assumed to be not representative for the final effluent discharged the sampling port for MEL-14 to Meliadine Lake. It is possible that it was sampled from a port that was not treated and not discharging to Meliadine Lake.

Table 1 presents the operational report, which summarizes the monitoring results at the EWTP on August 19, 2018. Table 2 presents the daily volume effluents discharged at MEL-14 to Meliadine Lake in August 2018.

Training for all personnel responsible has been conducted to ensure that future MEL-14 sampling is always collected from the same location, after treatment when the power and pumps are working. In addition,

the Environment Department at Meliadine is currently implementing a data management system for laboratory results. Once it has been fully commissioned, it should mitigate delays with reporting criteria exceedances and improve the timing for requests that may be made if re-analysis is required at the laboratory.

Agnico eagle understands the importance to meet water quality discharge criteria without exceedances. All departments involved discussed the EWTP changes or updates daily in a morning water management meeting and the monitoring and comparisons of data was an important part of a decision-making process.

**Table 1: August 19 EWT Operational Report:** 

| ay Shift Operator:   |       | J. Roussy |       | Date:             |         | Aug 19 20 | )18   |
|--|-------|-----------|-------|-------------------|---------|-----------|-------|
| light Shift Operator:  |       |           |       | Weather Condition | s D/S:  |           |       |
|  |       |           |       | Weather Condition | s N/S:  |           |       |
| CTIFLO #1  | 7:00  | 8:00      | 10:00 | 12:00             | 14:00   | 16:00     | 18:00 |
| lowrate (m3/hr)  | 400   | 400       | D     | 250               | 200     | 170       |       |
| Total Suspended Solids (TSS) (mg/l) Actiflo<br>ischarge ( limit 15 mg/l) | 3.43  | 4.25      | 0     | 3.7               | 3.6     | 4.44      |       |
| eed Turbidity (NTU)  | 50.93 | 43.9      | W     | 29.18             | 25.45   | 23.45     |       |
| Н  | 6.83  | 6.82      | N     | 6.77              | 6.67    | 6.68      |       |
| Turbidity (NTU) Actiflo discharge  | 3.68  | 3.83      |       | 4.83              | 3.4     | 4.51      |       |
| onductivity (ms/cm) EWTP Discharge<br>ump                                | 2073  | 2078      | D     | 2173              | 2098    | 2142      |       |
| ationic Polymer Set Point (mg/l)   | 1     | 1         | 0     | 1                 | 1       | 1         |       |
| oagulant Set Point (mg/l)  | 35    | 35        | W     | 37                | 42      | 50        |       |
| licro-Sand Quantity (g/l)  |       |           | N     |                   |         |           |       |
| roduction – ACTIFLO #1   | 6:00  |           |       | 18:00             | Varianc | es        |       |
| otaliser Flowrate (m3)   | 72670 | n         | -     | 729400 2700       |         |           |       |

Table 2: EWT Volume Compilation for August 2018

| CPT Total  | *  | EWIP DAIL            | EWIP DAILY OPERALIONAL REPORT | AL REPORT |                      |                     |           |         | 0              |  |  |
|--|--|----------------------|-------------------------------|-----------|----------------------|---------------------|-----------|---------|----------------|--|--|
| Dis Volume   | AGNICO EAGLE   |                      |                               |           |                      |                     |           |         |                |  |  |
| CPT 70th In Malacine (min)         CPT 10th Increcipated (min)         Medicate (min)         CPT 10th Increcipated (min)         Medicate (m  | TO THE PARTY OF TH |                      | D/S Volume                    |           |                      | N'S V               | /olume    | 31      | Day Total Volu |  |  |
| (m2) (m3) (m3) (m3) (m3) (m3) (m3) (m3) (m3  | Dav  | CP1 Total<br>Actiflo | CP1<br>recriculated           | Meliadine | CP1 Total<br>Actiflo | CP1<br>recriculated | Meliadine |         | culated        | dine Lake<br>ge                                |  |
| 7,397  |  | (m3)                 |                               | (m3)      | (m3)                 |                     | (m3)      | (m3)    |                | (m3)   |  |
| 6,658         7,086         14,990         14,590 <td>1-Aug</td> <td>7,397</td> <td></td> <td></td> <td>8,26</td> <td>'n</td> <td></td> <td>15,662</td> <td></td> <td>15,662</td> <td></td>   | 1-Aug  | 7,397                |                               |           | 8,26                 | 'n                  |           | 15,662  |                | 15,662   |  |
| 6,658 7,735 7,735 7,734 7,735 7,734  | 2-Aug  | 7,105                |                               |           | 7.88:                | 'n                  |           | 14,990  |                | 14,990   |  |
| 7 7075 7 758 7 7588 115043 115 | 3-Aug  | 8,658                | -                             |           | 6,25.                | 2                   |           | 12,910  |                | 12,910   |  |
| 6,752         7,314         14,846         14,846         14,846         14,846         14,846         14,846         11,2876         1,100  | 4-Aug  | 7,075                |                               |           | 7,96,7               | 69                  |           | 15,043  |                | 15,043   |  |
| 6,775  6,776  1,000  1,000  1,000  1,000  2,000  1, | 5-Aug  | 7,532                |                               |           | 7,31                 | 4                   |           | 14,846  |                | 14,846   |  |
| 1000   | 6-Aug  | 6,725                | 10                            |           | 6,15                 | 77                  |           | 12,876  |                | 12,876   |  |
| \$500 4 013 993 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 7-Aug  | 1,000                |                               |           | 7,16.                | 2                   |           | 8,162   |                | 8,162 Numbers are estimated from time running  | g at flow setpoints, Ran for 2 hours at ~ 500m3/hr   |
| \$ 5,006   | 8-Aug  | -                    |                               |           |                      | 0                   |           | 0       |                | 0  |  |
| 5,305         1,005         4,770         7,490         7,480         0         0         0,525           4,729         3,306         0         0         4,621         1,896         2,600         7,881         3,786           4,729         2,100            | 9-Aug  | 5,006                |                               | 99.       |                      |                     | 9 6       | 900'5   |                | 993 Total flow for the day was 5006m3 but or   | only 993m3 reported to Meliadine in the afternoon. There was a bit that was discharged in the morning but could not be r |
| 47.99         3.360         0         4.61         1.88         7.881         3.378           47.99         2.89         1.331         4.76         2.89         2.89         6.84           4.194         2.883         1.331         4.200         1.29         2.87         6.84           5.100         3.993         1.107         2.94         1.407         7.101         4.587           2.800         1.909         1.140         3.070         1.284         1.407         3.131           2.101         2.234         3.696         1.107         2.80         1.71         1.71           2.102         2.244         3.70         3.244         3.71         1.305         3.131           2.102         2.80         1.707         5.000         6.00         6.00         7.28         3.131           2.78         2.70         5.000         6.00         6.00         7.28         3.131         3.131           2.78         1.07         5.000         6.00         6.00         7.20         3.28         3.131           2.78         1.07         1.002         2.93         1.261         1.00         2.93         1.28         3.24  | 10-Aug   | 5,306                |                               | 4.27      |                      |                     | 9         | 12,795  |                | 4,270  |  |
| 4,172 4,148 2,881 4,756 2,886 2,080 8,485 6,844 4,949 4,149 2,883 1,137 4,200 1,327 2,97 1,894 4,082 2,080 3,089 1,989 1,137 2,001 1,289 2,97 1,994 4,082 2,039 1,190 2,27 1,190 2,97 1,190 2,234 4,082 2,234 1,407 2,242 6,128 1,282 2,97 1,190 2,139 1,190 2,27 1,29 1,190 2,27 1,190 2,27 1,29 1,190 2,27 1,190 2,27 1,29 1,190 2,27 1,190 2,27 1,29 1,190 2,27 1,29 1,29 1,29 1,29 1,29 1,29 1,29 1,29   | 11-Aug   | 3,360                |                               |           |                      |                     |           |         |                | 4,603  |  |
| 4,194 2,883 1,331 4,200 1,229 2,977 8,394 4,092 2,977 3,101 4,597 2,979 3,999 1,190 1,190 2,010 1,229 2,977 2,101 4,597 2,101 2,102 2,103  | 12-Aug   | 4,728                |                               |           |                      |                     |           |         |                | 2,641  |  |
| \$100 3,999 1,1907 2,001 554 1,407 7,101 6 55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5  | 13-Aug   | 4,194                |                               |           |                      |                     |           |         | 502            | 4,302  |  |
| 2 3099 1,9199 1,190 3,070 1,224 7,728 6,169 3,193 1,93 2,234 8,59 1,126 2,203 2,244 8,59 1,126 2,203 2,244 8,59 1,126 2,203 2,244 8,59 1,076 2,003 2,0 | 14-Aug   | 5,100                |                               |           |                      |                     | 120       |         |                | 2,514  |  |
| 2,000 2,234 5,96 11,06 887 223 5,956 3131 21,000 21 | 15-Aug   | 3,09%                |                               |           |                      |                     | •         |         |                | 2,976  |  |
| 2,756 7,28 8,22 6,46 2,2 6,364 6,511 7305 728  | 16-Aug   | 2,830                |                               |           |                      |                     |           |         |                | 825  |  |
| 2,758 728 2,770 5,000 616 5,000 7,758 728 728 728 728 728 728 728 728 728 72   | 17-Aug   | 2,105                |                               |           |                      |                     |           |         |                | 7,206  |  |
| 3.723         1,076         1,770         2,432         616         1,927         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         5,326         1,622         1,622         5,326         1,622         1,622         2,626         1,622         1,622         1,622         2,626         1,622         1,622         1,622         2,626         1,622         1,622         2,626         1,622         1,622         1,622         2,626         1,622         1,622         1,622         2,626         1,622         1,622         2,626         1,622         1,622         2,626         1,622         1,622         2,626         1,622         1,622         2,626         1,622         1,622         2,626         1,622         1,622         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2,627         2  | 18-Aug   | 2,798                |                               |           |                      |                     |           |         |                | 7,070  |  |
| 3.725         3.72         3.71         2.73         5.90         2.73         5.90         2.90         2.90         2.90         2.90         1.02         2.90         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.02         2.90         1.03         2.94         2.90         2.90         2.94         2.90 <t< td=""><td>19-Aug</td><td>2,783</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3,634</td><td></td></t<>  | 19-Aug   | 2,783                |                               |           |                      |                     |           |         |                | 3,634  |  |
| 2,708         3,009         3,000         1,062         2,104         3,000         1,062         2,104 <td< td=""><td>20-Aug</td><td>3,725</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>6,842</td><td></td></td<>   | 20-Aug   | 3,725                |                               |           |                      |                     |           |         |                | 6,842  |  |
| 2775         899         1876         2.929         1.25         1.707         3.573         2.150         3.573           1,772         1,192         560         1,775         1,775         891         3,947         2,299         1,190           1,772         1,192         590         1,775         1,775         1,775         991         3,947         2,999         1,190           1,772         1,192         590         1,775         1,775         1,775         891         3,947         2,999         1,190           1,772         1,192         590         0         0         0         3,247         2,997         1,190           1,773         1,175         1,775         1,775         0         0         0         3,277         2,997         1,190           1,947         1,947         3,947         2,947         2,947         2,997         1,190         1,117         1,117           1,947         1,947         1,117         1,117         1,117         1,117         1,140         1,127           1,948         1,947         1,277         1,277         1,140         1,52,134         1,52,104         152,104         152,104 <td>21-Aug</td> <td>3,081</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8</td> <td></td> <td>4,007 Flow totalizer now programmed to reset &amp;</td> <td>every morning. 24hr result taken from totalizer. Low production on D/S due to RO cleaning and conductivity riding the li</td>   | 21-Aug   | 3,081                |                               |           |                      |                     |           | 8       |                | 4,007 Flow totalizer now programmed to reset & | every morning. 24hr result taken from totalizer. Low production on D/S due to RO cleaning and conductivity riding the li |
| 1612   961   662   2.329   14.88   681   3.442   2.3299   11.5   17.5    | 22-Aug   | 2,778                |                               |           |                      |                     |           |         |                | 3,583 RO cleaning 5hrs, CP1 conductivity above | ve 2,300, need both RO's constantly for EWTP to discharge in Mei   |
| 1,72         1,192         880         1,75         1,75         1,75         0         3,47         2,967         2,967           764         325         439         0         0         0         764         325         434           597         434         103         0         0         0         764         325         434           192         434         103         0         0         0         764         436         4   | 23-Aug   | 1,613                |                               |           |                      |                     |           |         |                | 1,543 RO cleaning 5hrs, CP1 conductivity above | ve 2,300, Actiflow input flow down to 180m3/h  |
| 764         325         439         0         0         764         325         4           537         434         103         0         0         537         434         434           182         301         301         0         607         603         603         603           182         192         0         181         181         181         362         362         364         364           183         59         59         59         59         59         362   | 24-Aug   | 1,772                |                               |           |                      |                     | 3         | 3.547   |                | 580 CP1 conductivity 2400, very low permeats   | atte production from RO, windy, poor water quality at MF   |
| \$57         434         103         0         0         537         434           192         301         301         301         301         301         403           192         192         182         182         384         384         384           181         181         181         0         382         384         384           59         59         0         117         117         117         117           638.5         570         685         1,277         1,140         11         114           99,800         21,314         207,841         55,084         152,1   | 25-Aug   | 764                  |                               |           | 6                    | 0                   | 0         | 764     |                | 439 NO water from CP1, all water reporting to  | to lake is from RO discharge   |
| 10   | 26-Aug   | 537                  |                               |           | 60                   | 0                   | 0         | 537     |                | 103 RO to MEL 103m3/d, Changed to pump R       | RO to CP1 via EWTP pump. Waiting for samples on RO discharge toxicity  |
| 192   192   0   192   192   0   334   334   0   0   0   0   0   0   0   0   0  | 27-Aug   | 301                  |                               | 2         | 0 30                 |                     | 1         | 109     |                | 0 RO to CP1 using EWTP discharge pump (r       | (recirc) pipe  |
| 181   181   0   181   0   982   98   | 28-Aug   | 192                  |                               |           | 0 19.                |                     | 2         | 384     |                | 0 RO 2 down for ~14hrs,                        |  |
| 59         59         0         59         50         0         117         117         0           638.5         570         688.5         1,27         1,140         137         134         152,737           99,800         21,314         207,841         55,084         152,737  | 29-Aug   | 181                  |                               | Sec. Sec. | 0 18                 |                     | 1         | 362     |                | 0  |  |
| 638.5 570 68.5 638.5 570 68.5 1,777 1,140<br>99,800 21,314 207,841 55,084  | 30-Aug   | 35                   |                               |           |                      |                     | 9         | 117     |                | 0 Shutdow both RO 8am, permeate conduc-        | ctivity too high. Did not run overnight  |
| 99,800 21,314 55,084   | 31-Aug   | 638.5                |                               |           |                      |                     | .89       | -       |                | 137  |  |
|  | Total Volume (m  |                      |                               |           |                      | 21,314              | *         | 207,841 | 55,084         | 152,757 Both RO online 4:30pm, Both RO down at | at 8:30pm issues.  |





## NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α  | REPORT DATE: MONTH – DAY <b>08-26-2018</b> | -YEAR                   |                       | 18:00                    |               |             | XORIGINAL SPILI           | _ REPORT,      | REPORT NUMBER                  |
|--|--|-------------------------|-----------------------|--------------------------|---------------|-------------|---------------------------|----------------|--------------------------------|
| _  | OCCURRENCE DATE: MONTH                     | – DAY – YEAR            |                       |                          | ENCE TIME     |             | OR<br>☐ UPDATE #          |                | 18 - 344                       |
| В  | 8-25-2018                                  |                         |                       | 10:00                    |               |             | TO THE ORIGINAL           | SPILL REPORT   |                                |
| С  | LAND USE PERMIT NUMBER (  KVPL11D01        | (IF APPLICABLE)         |                       |                          | 2AM-ME        |             | (IF APPLICABLE)           |                |                                |
| D  | GEOGRAPHIC PLACE NAME OF Meliadine Gold Pi |                         | N FROM NAMED LO       | CATION                   | REGION        |             |                           |                |                                |
|  | LATITUDE                                   |                         |                       |                          | LONGITUDE     | X NUNAVU    | T   ADJACEN               | T JURISDICTION | OR OCEAN                       |
| Е  | DEGREES 63                                 | MINUTES 2               | SECONDS 23            |                          | DEGITEEO      | 92          | MINUTES                   | <b>13</b> si   | ECONDS 37                      |
| F  | Agnico Eagle Min                           |                         | Meliadine             |                          |               |             | on<br>ut, X0C 0G0         | )              |                                |
| G  | ANY CONTRACTOR INVOLVED  None              | )                       | CONTRACTOR A          | DDRESS                   | OR OFFICE LO  | CATION      |                           |                |                                |
|  | PRODUCT SPILLED  Sewage                    |                         | QUANTITY IN LIT       | RES, KILO                | OGRAMS OR C   | UBIC METRE  | S U.N. NUMBEF             | }              |                                |
| Н  | SECOND PRODUCT SPILLED  None               | (IF APPLICABLE)         | QUANTITY IN LIT       | RES, KILO                | OGRAMS OR C   | UBIC METRE  | U.N. NUMBER               | 3              |                                |
|  | SPILL SOURCE  Retention Tank Li            | ift Station             | SPILL CAUSE  Mechanic | al cou                   | upling loc    | sened       | AREA OF CO                | ntamination in | SQUARE METRES                  |
| J  | FACTORS AFFECTING SPILL C                  | OR RECOVERY             | DESCRIBE ANY          | ASSISTAN                 | ICE REQUIRED  | ı           | HAZARDS TO                | PERSONS, PRO   | PERTY OR EQUIPMENT             |
|  | ADDITIONAL INFORMATION, C                  | COMMENTS, ACTIONS PROPO | L<br>SED OR TAKEN TO  | CONTAIN                  | N, RECOVER OI | R DISPOSE ( | L<br>DF SPILLED PROD      | UCT AND CONTA  | MINATED MATERIALS              |
| the ground. The lift station was shut down and repaired. New flexible piping is being ordered for this application to prevent re-occurrence. Spilled sewage was cleaned up. No contaminants reached any water body. This spill is being reported as per the 2AM-MEL1631 Nunavut Water Board License, part H item 8.  A follow up report will be issued.  Sr. Environmental Coordinator - Dan Gorton/Jennifer Brown: Ext 3996 Environmental Technician - Laura Hanson: Ext 3903 or 3925 |  |                         |                       |                          |               |             | reached any               |                |                                |
| L  | REPORTED TO SPILL LINE BY  Jessica Huza    | POSITION  Gen. Supervi  |                       | EMPLOYE<br><b>Aani</b> a | R Eagle       |             | LOCATION CALLIN           |                | TELEPHONE 8198565097           |
| M  | ANY ALTERNATE CONTACT  Laura Hanson        | POSITION Env Technicia  |                       | EMPLOYE                  |               |             | ALTERNATE CONT  Meliadine | ACT A          | ALTERNATE TELEPHONE 8197593555 |
|  |  | l                       | REPORT LINE           |                          |               |             | •                         | <u> </u>       |                                |
| N  | RECEIVED AT SPILL LINE BY                  | POSITION                |                       | EMPLOYE                  | R             |             | LOCATION CALLE            | ) F            | REPORT LINE NUMBER             |
| 13   |  | STATION OPERATOR        |                       |                          |               |             | YELLOWKNIFE, N            | Г (            | 867) 920-8130                  |
| LEAD   | AGENCY DEC DCCG DC                         | GNWT □ GN □ ILA □ INAC  | □ NEB □ TC            | SIGNI                    | FICANCE   M   | INOR 🗆 MA   | JOR   UNKNOWN             | FILE STATE     | JS □ OPEN □ CLOSED             |
| AGE  | NCY  | CONTACT NAME            |                       | CONT                     | ACT TIME      |             | REMARKS                   |                |                                |
|  | AGENCY                                     |                         |                       |                          |               |             |                           |                |                                |
|  | T SUPPORT AGENCY  OND SUPPORT AGENCY       |                         |                       |                          |               |             |                           |                |                                |
|  |  |                         |                       |                          |               |             |                           |                |                                |
| THIR   | D SUPPORT AGENCY                           |                         |                       |                          |               |             |                           |                |                                |



## Follow Up Report: #18-344 August 25, 2018 Sewage Spill

## **Description of Incident:**

On August 25, 2018 at approximately 10:00, a sewage spill was observed and reported at the MSB sewage lift station. As sewage entered the lift station, pressure was applied on the fixed piping. The pressure caused the fixed piping to come uncoupled. This resulted in a spill of approximately 200 L at the lift station and onto the ground. No contaminants reached any water body.

### Spill Response & Cleanup:

The lift station was shut down and the sewage was removed from surface with a vacuum truck and surface soil was excavated and disposed of as HAZMAT.

#### **Corrective Measures**

Daily inspections were conducted at the lift station prior to receiving new parts to be installed. New flexible piping has been installed to prevent re-occurrence. Figures 1 and 2 show the flexible pipe installed and insulation of the piping that continues outside, respectively.



Figure 1: Newly installed flexible hose.



Figure 2: Insulated piping outside the MSB sewage lift station.





REPORT DATE: MONTH - DAY - YEAR

## **NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

REPORT TIME

NT-NU 24-HOUR SPILL REPORT LINE

XORIGINAL SPILL REPORT,

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | 09-21-2018  |   |                      | 14:30            |                       | OF                                 | ORIGINAL SPILL REPORT,                 |                               | REPORT NUMBER                            |
|------|---|---|----------------------|------------------|-----------------------|------------------------------------|--|-------------------------------|--|
| В    | OCCURRENCE DATE: MONTH  09-20-2018  | – DAY – YEAR  |                      | 000 <b>10:00</b> | NCE TIME              |                                    | UPDATE #<br>THE ORIGINAL SPILL REPO    | RT                            | 18 - 396                                 |
| С    | LAND USE PERMIT NUMBER (  | IF APPLICABLE)  |                      |                  | WATER LICENC  2BB-MEL | •                                  | APPLICABLE)                            |                               |  |
| D    | GEOGRAPHIC PLACE NAME C Meliadine Gold Pr   |   | N FROM NAMED L       | OCATION          | REGION                | <b>X</b> NUNAVUT                   | ☐ ADJACENT JURISDICT                   | ION (                         | OR OCEAN                                 |
| Е    | LATITUDE DEGREES 63   | MINUTES 1   | SECONDS 24           | _                | ONGITUDE DEGREES 9    | 2                                  | MINUTES 11                             | SE                            | conds 7                                  |
| F    | RESPONSIBLE PARTY OR VES Agnico Eagle Min   |   | RESPONSIBLE R        |                  |                       |                                    | , X0C 0G0                              |                               |  |
| G    | ANY CONTRACTOR INVOLVED  N/A  |   | CONTRACTOR A         | ADDRESS (        | OR OFFICE LOC         | CATION                             |  |                               |  |
|      | PRODUCT SPILLED  Treated Sewage S   | Sludge  | QUANTITY IN LIT      | TRES, KILC       | GRAMS OR CU           | BIC METRES                         | U.N. NUMBER                            |                               |  |
| Н    | SECOND PRODUCT SPILLED (  | IF APPLICABLE)  | QUANTITY IN LIT      | TRES, KILC       | GRAMS OR CU           | BIC METRES                         | U.N. NUMBER                            |                               |  |
|      | SPILL SOURCE  Sludge Holding Ta   |   | SPILL CAUSE  Human e | rror/co          | mmunica               | ation                              | AREA OF CONTAMINATION Unknown          | N IN S                        | SQUARE METRES                            |
| J    | FACTORS AFFECTING SPILL C Full tanks and sne  |   | DESCRIBE ANY N/A     | ASSISTAN         | CE REQUIRED           |                                    | ProperPPE req                          |                               |  |
| K    | are located at the up-gradient (0.919 distance, gradient spill material is not the spill is being The spill removal Contacts: Jennife | three separate tanks (100,000 L tanks) used for treated sewage sludge storage. The storage tanks e located at the old fuel farm used under Licence 2BB-MEL1424 and is 219 m and 394 m organient (0.91% 2.3%, receptively) from Lake J5 and Lake H20, respectively. Based on the stance, gradients and mine infrastructure located between the spill and the Lakes, migration of the stance is not anticipated to meet any water bodies.  The spill is being reported as per NWB Licence 2BB-MEL1424, Part H, item 4.  The spill removal and cleanup is planned and follow up report will be issued. |                      |                  |                       |                                    |  |                               | orage tanks<br>n<br>the<br>ration of the |
| L    | REPORTED TO SPILL LINE BY  Jennifer Brown   | Sr. Env. Coor   | dinator              |                  |                       |                                    | DCATION CALLING FROM Meliadine Project |                               | ELEPHONE<br>3197593555                   |
| М    | ANY ALTERNATE CONTACT  Dan Gorton   | Env. Coordinate   | ator                 | EMPLOYER AL      |                       | TERNATE CONTACT  Meliadine Project |  | LTERNATE TELEPHONE 8197593555 |  |
|      |   |   | REPORT LIN           | E USE ON         | LY                    |                                    |  |                               |  |
| Z    | RECEIVED AT SPILL LINE BY   | POSITION STATION OPERATOR   |                      | EMPLOYE          | R                     |                                    | OCATION CALLED<br>ELLOWKNIFE, NT       |                               | EPORT LINE NUMBER<br>67) 920-8130        |
| LEAD | AGENCY DEC DCCG DG  |   | D NEB □TC            | SIGNIF           | FICANCE   MII         | <b>I</b>                           |  |                               | S □ OPEN □ CLOSED                        |
| AGE  | NCY   | CONTACT NAME  |                      | CONTA            | ACT TIME              |                                    | REMARKS                                |                               |  |
| LEAD | AGENCY  |   |                      |                  |                       |                                    |  |                               |  |
| FIRS | T SUPPORT AGENCY  |   |                      |                  |                       |                                    |  |                               |  |
| SEC  | OND SUPPORT AGENCY  |   |                      |                  |                       |                                    |  |                               |  |
| THIR | D SUPPORT AGENCY  |   |                      |                  |                       |                                    |  |                               |  |



## Follow Up Report: #18-396 September 20, 2018 Treated Sewage Sludge

### **Description of Incident:**

On September 20, 2018 during a site inspection with INAC and ECCC personnel, a spill was observed at a storage tank (100,000 L tanks) used for treated sewage sludge storage. The spill occurred at one tank during filling, however, overspray was observed on two adjacent storage tanks. The storage tanks are located at the old fuel farm used under Licence 2BB-MEL1424 and is 219 m and 394 m up-gradient (0.91% 2.3%, receptively) from Lake J5 and Lake H20, respectively. Based on the distance, gradients and mine infrastructure located between the spill and the Lakes, migration of the spill material is not anticipated to meet any water bodies.

### Spill Response & Cleanup:

On the day of the spill observation, the ground froze and it snowed during the evening. Personnel were unable to excavate the material with a hand-shovel. Since the tanks are filled, the tanks cannot be mobilized to improve access for heavy equipment, until emptied. It is Agnico Eagle's intent is to empty the tanks and to discharge the material to the dry-stack tailings storage facility when operational (in compliance with the sludge disposal planning). The timeframe to have the tanks emptied is not defined at the moment.

## **Spill Cause and Corrective Measures**

The spill was caused by human error and miscommunication between the pump operator and the person filling the tank with the treated sewage sludge. Spill reporting procedures have been reviewed with the personnel involved, since the procedure to report was not followed. Additionally, a procedure has been modified for the discharge of effluent to a storage tank. This procedure has been delivered to personnel and will continue to be communicated. The spill located under the storage tank will be excavated (by hand shovel or with heavy equipment) and disposed of as HAZMAT once the ground is thawed and prior to freshet to mitigate transport migration with surface flow.





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α    | 10-05-2018   | -YEAR                                |                          | :30                                     | X OR              | PRIGINAL SPILL REPORT,                   |          | REPORT NUMBER                |
|------|--|--------------------------------------|--------------------------|---|-------------------|--|----------|------------------------------|
| В    | OCCURRENCE DATE: MONTH 10-04-2018  | – DAY – YEAR                         |                          | CCURRENCE TIME 6:00                     |                   | IPDATE #THE ORIGINAL SPILL RE            | PORT     | 18 - 417                     |
| С    | LAND USE PERMIT NUMBER (  KVPL11D01  |                                      |                          | WATER LICENCE  2AM-MEL                  | •                 | APPLICABLE)                              |          |                              |
| D    | GEOGRAPHIC PLACE NAME O  |                                      | N FROM NAMED LOC         |   | (NUNAVUT          | □ ADJACENT JURISDI                       | CTION C  | DR OCEAN                     |
| Е    | degrees <b>63</b>  | MINUTES 2                            | SECONDS 23               | LONGITUDE DEGREES 92                    |                   | MINUTES 13                               | SE       | conds 37                     |
| F    | RESPONSIBLE PARTY OR VES Agnico Eagle Min  |                                      |                          | RTY ADDRESS OR OFFIC<br>Rankin Inlet, N |                   | X0C 0G0                                  |          |                              |
| G    | ANY CONTRACTOR INVOLVED  Sarliag Fournier  | )                                    | CONTRACTOR ADD           | DRESS OR OFFICE LOCA                    | ATION             |  |          |                              |
|      | PRODUCT SPILLED  Diesel  |                                      | QUANTITY IN LITRE        | ES, KILOGRAMS OR CUB                    | BIC METRES        | U.N. NUMBER<br>1202                      |          |                              |
| Η    | SECOND PRODUCT SPILLED  None   | (IF APPLICABLE)                      | QUANTITY IN LITRE        | ES, KILOGRAMS OR CUB                    | BIC METRES        | U.N. NUMBER                              |          |                              |
| l    | SPILL SOURCE Fuel Truck  |                                      | SPILL CAUSE  Overfilling |   |                   | AREA OF CONTAMINAT                       | ION IN S | QUARE METRES                 |
| J    | FACTORS AFFECTING SPILL O  | DR RECOVERY                          | DESCRIBE ANY AS          | SISTANCE REQUIRED                       |                   | HAZARDS TO PERSONS                       | S, PROP  | ERTY OR EQUIPMENT            |
| K    | flow of fuel. No wallandfarm.  A follow up report Environmental Construction of the second se | t will be issued.<br>ompliance Couns | elor                     | ·                                       |                   |  | II be    | send to the                  |
| L    | REPORTED TO SPILL LINE BY  Martin Theriault  | POSITION Compliance                  |                          | nployer<br>Agnico Eagle                 |                   | cation calling from eliadine Projec      |          | ELEPHONE<br>8197593555       |
| M    | ANY ALTERNATE CONTACT  Dan Gorton  | POSITION Env Coordina                |                          | IPLOYER Agnico Eagle                    | ALT<br>L <b>V</b> | ernate contact<br><b>eliadine Projec</b> | et 8     | TERNATE TELEPHONE 3197593555 |
|      |  |                                      | REPORT LINE U            | ISE ONLY                                | <u> </u>          |  |          |                              |
| N    | RECEIVED AT SPILL LINE BY  | POSITION                             | EN                       | IPLOYER                                 | LO                | CATION CALLED                            | RE       | EPORT LINE NUMBER            |
| 1 7  |  | STATION OPERATOR                     |                          | T                                       | YEI               | LOWKNIFE, NT                             | (86      | 67) 920-8130                 |
| LEAI | DAGENCY DEC DCCG DC  | GNWT □ GN □ ILA □ INA                | C □ NEB □ TC             | SIGNIFICANCE   MINO                     | OR 🗆 MAJOR        | □ UNKNOWN FILE                           | STATUS   | S □ OPEN □ CLOSED            |
| AGE  | NCY  | CONTACT NAME                         |                          | CONTACT TIME                            |                   | REMARKS                                  |          |                              |
| LEAI | DAGENCY  |                                      |                          |   |                   |  |          |                              |
| FIRS | T SUPPORT AGENCY   |                                      |                          |   |                   |  |          |                              |
| SEC  | OND SUPPORT AGENCY   |                                      |                          |   |                   |  |          |                              |
| TUUE | RD SUPPORT AGENCY  |                                      |                          |   |                   |  |          |                              |



## Follow Up Report: #18-417 October 4th, 2018 Diesel fuel

#### **Description of Incident:**

On October 4<sup>th</sup>, while loading the fuel truck, excess volume of fuel was programmed to be loaded into the truck causing an overflow of Diesel. The fuel truck operator took a first dip and set the load to 8500L for the first sequence. The operator than carried out for the second sequence and reset a second load of 8500L without taking a second dip. The tanker started to overflow near the end of the second sequence.

The first estimation (400L) was a visual one during clean up to report as soon as possible the spill to the authority. During the investigation, the amount was corrected according to facts. A dip was performed prior to the first sequence showing 2800L remaining in the tanker. Two sequence of 8500L were set and 29L was left from the second sequence when the operator hit the emergency stop button. The fuel tank capacity is 18 927L which lead us towards a 844L spill

#### Spill Response & Cleanup:

As soon as the operator saw the overflow, he pressed the emergency stop button and called his supervisor. The supervisor immediately dispatched a grader and a loader for cleanup. Berms were established and absorbent pads deployed. The excess fuel was pumped to another truck. The grader and the loader began scrapping the surface material. Clean up efforts continued the next day, with an excavator excavating the contaminated material (10 to 12 inches deep). Approximately 20m3 of contaminated soil was taken to the landfarm A. Readings at the excavated site were taken following the completion of excavation with a MiniRAE Lite instrument. The values were below 25ppm and as such are deemed decontaminated.

## **Spill Cause and Corrective Measures**

It was found during the investigation process that the spill was caused by human error. The operator didn't follow the procedure for which he was trained and didn't carry out a second dip before setting the load for the second sequence. Also, no spotter was use while fueling the tanker. For the corrective measures, the supervisor will meet with all employees to review procedure and discuss criticality of being sure to follow all step of fuel loading procedure. A warning system for fuel truck will be installed for high level alarm. A secondary containment will be built in this area in 2019.



**Photo 1**: Contain the spill with berm and absorbent pads



**Photo 2**: Scrapping of the surface material



**Photo 3:** Excavation of the contaminated material



**Photo 4:** Contaminated material brought to the landfarm



Photo 5: Spill area after cleanup





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Λ    | REPORT DATE: MONTH - DAY   | -YEAR   |                     | REPORT  | TIME           |             | STODIOINAL COUL                            | DEDODT         |                                   |
|------|--|---|---------------------|---|----------------|-------------|--|----------------|-----------------------------------|
| Α    | 10-31-2018   |   |                     | 12:00   | )              |             | ▼ORIGINAL SPILL<br>OR                      | REPORT,        | REPORT NUMBER                     |
| D    | OCCURRENCE DATE: MONTH   | – DAY – YEAR  |                     |   | ENCE TIME      |             | UPDATE #                                   | CDILL DEDORT   | 18 - 440                          |
| В    | 10-30-2018   |   |                     | 15:00   |                |             | TO THE ORIGINAL                            | SPILL REPORT   |                                   |
| С    | LAND USE PERMIT NUMBER (   | IF APPLICABLE)  |                     |   |                |             | (IF APPLICABLE)                            |                |                                   |
|      | KVPL11D01  |   |                     |   | 2AM-ME         | L1631       |  |                |                                   |
| D    | GEOGRAPHIC PLACE NAME C  |   | N FROM NAMED L      | OCATION   | REGION         |             |  |                |                                   |
| _    | Meliadine Gold Pi  | Ojeci   |                     |   | □ NWT          | X NUNAVU    | T  | JURISDICTION   | OR OCEAN                          |
| Ε    | LATITUDE 62  | MINUTES 2   | 22                  | ,   | LONGITUDE      | 12          |  | <b>13</b> se   | 27                                |
|      | DEGREES <b>63</b> RESPONSIBLE PARTY OR VES                             |   | SECONDS 23          |   | DEGREES OF OFF |             |  | IJ SE          | ECONDS 37                         |
| F    | Agnico Eagle Min   |   |                     |   |                |             | ut, X0C 0G0                                |                |                                   |
|      | ANY CONTRACTOR INVOLVED  |   | CONTRACTOR          |   | •              |             | , 7.00 000                                 |                |                                   |
| G    | None   |   |                     |   |                |             |  |                |                                   |
|      | PRODUCT SPILLED  |   | QUANTITY IN LI      | TRES, KIL   | OGRAMS OR CI   | UBIC METRE  | S U.N. NUMBER                              |                |                                   |
|      | Sewage   |   | ~ 1000L             |   |                |             | NA   |                |                                   |
| Н    | SECOND PRODUCT SPILLED (   | (IF APPLICABLE)   | QUANTITY IN LI      | TRES, KIL   | OGRAMS OR C    | UBIC METRE  | S U.N. NUMBER                              |                |                                   |
|      | None   |   |                     |   |                |             |  |                |                                   |
| ı    | SPILL SOURCE   |   | SPILL CAUSE         |   |                |             | AREA OF CON                                | ITAMINATION IN | SQUARE METRES                     |
| ı    | Retention Tank Li  |   | Mechanio            | cal fail  | ure            |             |  |                |                                   |
| J    | FACTORS AFFECTING SPILL C  | OR RECOVERY   | DESCRIBE ANY        | ' ASSISTAN  | ICE REQUIRED   |             | HAZARDS TO                                 | PERSONS, PRO   | PERTY OR EQUIPMENT                |
|      | ADDITIONAL INFORMATION, C  | OMMENTS, ACTIONS PROP   | <br>OSED OR TAKEN T | O CONTAI  | N, RECOVER OF  | R DISPOSE ( | <br>DF SPILLED PRODU                       | JCT AND CONTA  | <br>MINATED MATERIALS             |
| K    | be disposed prop No water body wa A follow up repor The spill is being | s use to remove e<br>erly.<br>as impacted by th<br>t will be issued.<br>reported as per l | extra liquid        | extra liquid and the contaminated material was scrapped and wi<br>e spill, the closer water body is over 250 meters.<br>NWB Licence 2AM-MEL1631 Part H, item 8. |                |             |  |                |                                   |
| ı    | REPORTED TO SPILL LINE BY  |   |                     | EMPLOYE   |                |             | LOCATION CALLIN                            |                | ELEPHONE                          |
| _    | Martin Theriault   | Compliance  | counselor           |   | co Eagle       |             | Meliadine l                                | •              | 8197593555                        |
| Μ    | ANY ALTERNATE CONTACT  Dan Gorton                                      | Env Coordin   | ator                | Agnic   | eo Eagle       |             | ALTERNATE CONTA<br>Meliadine I<br>LOCATION |                | REPRESENTATE TELEPHONE 8197593555 |
|      |  | •   | REPORT LIN          | E USE ON  | ILY            |             |  | <u>'</u>       |                                   |
| NI   | RECEIVED AT SPILL LINE BY  | POSITION  |                     | EMPLOY  | ER             |             | LOCATION CALLED                            | ) F            | REPORT LINE NUMBER                |
| N    |  | STATION OPERATOR  |                     |   |                |             | YELLOWKNIFE, NT                            | (8             | 867) 920-8130                     |
| LEAD | DAGENCY DEC DCCG DG  | GNWT □ GN □ ILA □ INA   | C □ NEB □ TC        | SIGN  | IFICANCE   M   | INOR 🗆 MA   | JOR 🗆 UNKNOWN                              | FILE STATU     | JS □ OPEN □ CLOSED                |
| AGE  | NCY  | CONTACT NAME  |                     | CON   | TACT TIME      |             | REMARKS                                    |                |                                   |
| LEAD | D AGENCY   |   |                     |   |                |             |  |                |                                   |
| FIRS | T SUPPORT AGENCY   |   |                     |   |                |             |  |                |                                   |
| SEC  | OND SUPPORT AGENCY   |   |                     |   |                |             |  |                |                                   |
| THIR | RD SUPPORT AGENCY  |   |                     |   |                |             |  |                |                                   |



## Follow Up Report: #18-440 October 30th, 2018 Lift Station Sewage Spill

### **Description of Incident:**

On October 30<sup>th</sup>, pump #1 of the main lift station failed, causing untreated sewage to begin spilling out onto the gravel pad a few meters west of the main entrance of the camp. The current design of the lift station wiring works in such a way that when one pump goes into failure mode, the circuitry shuts off both pumps. Consequently, both pumps shut off within the effluent storage tank and it overfilled, resulting in sewage being released onto the ground.

## Spill Response & Cleanup:

Initially, an employee who was outside at the time noticed the water flowing and called the E&I supervisor over the radio. The system was then shut down and E&I began using gravel to contain/absorb the spill, and a vacuum truck to remove as much standing water as possible. Peat moss was then used to further absorb any more saturated ground and was left to sit overnight.

The following day the contaminated material was scraped up with a loader and brought to the License A Landfarm (approximately 6m³), and will later be spread over existing windrows to enhance the bioremediation process. INAC was first contacted to ensure that this was a suitable plan of action for disposing of the sewage-contaminated material.

## **Spill Cause and Corrective Measures**

An investigation was completed and the cause of the spill was determined to be a failed pump, which lead to an overflow of the effluent storage tank. A new pump is being brought in on a rush order to replace the broken one. The system's circuitry will be reconfigured so that when one pump fails, the other will remain operating. An alarm horn will be added to warn of high levels in the storage tank, and will send a signal advising central control.



Photo 1: Panorama showing the extent of the affected area.



**Photo 2**: Peat moss applied to contaminated area to absorb material.



**Photo 3:** Excavation of the contaminated material.



**Photo 4:** Contaminated material brought to the License A Landfarm (the dark material).





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| Α  | REPORT DATE: MONTH – DAY 11-18-2018                         | -YEAR                                      | 1                     | 9:30  | XORIGINAL SPILL REPORT,                              | REPORT NUMBER   |
|--|---|--|-----------------------|---|--|---|
| В  | OCCURRENCE DATE: MONTH                                      | – DAY – YEAR                               |                       | CCURRENCE TIME 1:00                               | ☐ UPDATE #<br>TO THE ORIGINAL SPILL REPO             | DRT   |
| С  | KVCL102J168   |  | ·                     | WATER LICENCE NUMBE 2BB-MEL1424                   | R (IF APPLICABLE)                                    |   |
| D  | Meliadine Gold P  | OR DISTANCE AND DIRECTION  roject          | FROM NAMED LOC        | □ NWT <b>X</b> NUNAV                              | 'UT □ ADJACENT JURISDIC                              | TION OR OCEAN   |
| Ε  | DEGREES <b>63</b>   |  | SECONDS 24            | DEGREES 92  | MINUTES 11   | SECONDS 7   |
| F  | RESPONSIBLE PARTY OR VER                                    |  |                       | RTY ADDRESS OR OFFICE LOCA<br>Rankin Inlet, Nunav |  |   |
| G  | ANY CONTRACTOR INVOLVED  None                               | )  | CONTRACTOR ADD        | DRESS OR OFFICE LOCATION                          |  |   |
|  | PRODUCT SPILLED  Treated Water                              |  | QUANTITY IN LITRE     | ES, KILOGRAMS OR CUBIC METF                       | RES U.N. NUMBER                                      |   |
| Η  | SECOND PRODUCT SPILLED NA                                   | (IF APPLICABLE)                            | QUANTITY IN LITRE     | ES, KILOGRAMS OR CUBIC METF                       | RES U.N. NUMBER                                      |   |
|  | SPILL SOURCE Sewage Treatmer                                | nt Plant                                   | SPILL CAUSE Other     |   | AREA OF CONTAMINATIO                                 | N IN SQUARE METRES  |
| J  | FACTORS AFFECTING SPILL OF Freezing Tempera                 |  | DESCRIBE ANY AS  None | SISTANCE REQUIRED                                 | HAZARDS TO PERSONS, None                             | PROPERTY OR EQUIPMENT   |
| the tank. Following the overflow, water to the Exploration Camp was temporarily shut down, the hos and valve was thawed and the retention tank was emptied. As a preventative measure, a plywood door with insulation applied was installed to the Sea-Can to prevent freezing in the future. Treated water was frozen in place below the Mel-7 pipeline. The spilled water will be removed with ice picks and transported to CP1. The last Mel-7 results pertaining to the November 5th sample date showed a fecal coliforms concentration of <2 CFU/100ml and a total coliform concentration of <10 CFU/100ml. Results of November 12th & November 19th sampling events will be supplied in the follow-up report. This spill is being reported as per part H, item 4 of the 2BB-MEL1424 Water Licence. |   |  |                       |   |  |   |
| L  | REPORTED TO SPILL LINE BY  Matt Gillman                     | POSITION  Hydrology Tec                    |                       | IPLOYER<br>Ignico Eagle                           | LOCATION CALLING FROM  Meliadine Project             | TELEPHONE   |
| M  | ANY ALTERNATE CONTACT                                       | POSITION                                   | EM                    | IPLOYER   | ALTERNATE CONTACT                                    | 8197593555  |
|  | Daniel Gorton   | LOCATION                                   |                       | gnico Eagle                                       | ALTERNATE TELEPHONE                                  |   |
| N  | Damei Gorton  | Env. Coordina                              | REPORT LINE U         | <u> </u>  | Meliadine Project                                    | ALTERNATE TELEPHONE   |
| N   ·························  |   |  | REPORT LINE U         | <u> </u>  | LOCATION CALLED                                      | ALTERNATE TELEPHONE 8197593555  REPORT LINE NUMBER                |
|  | RECEIVED AT SPILL LINE BY                                   | POSITION<br>STATION OPERATOR               | REPORT LINE U         | SE ONLY   | LOCATION CALLED YELLOWKNIFE, NT                      | ALTERNATE TELEPHONE 8197593555                                    |
| LEA  | RECEIVED AT SPILL LINE BY                                   | POSITION<br>STATION OPERATOR               | REPORT LINE U         | ISE ONLY IPLOYER                                  | LOCATION CALLED YELLOWKNIFE, NT                      | ALTERNATE TELEPHONE 8197593555  REPORT LINE NUMBER (867) 920-8130 |
| LEA  | RECEIVED AT SPILL LINE BY                                   | POSITION STATION OPERATOR GNWT GN ILA INAC | REPORT LINE U         | SIGNIFICANCE   MINOR   M                          | LOCATION CALLED YELLOWKNIFE, NT AJOR  UNKNOWN FILE S | ALTERNATE TELEPHONE 8197593555  REPORT LINE NUMBER (867) 920-8130 |
| AGE<br>LEA   | RECEIVED AT SPILL LINE BY D AGENCY DEC DCCG DC              | POSITION STATION OPERATOR GNWT GN ILA INAC | REPORT LINE U         | SIGNIFICANCE   MINOR   M                          | LOCATION CALLED YELLOWKNIFE, NT AJOR  UNKNOWN FILE S | ALTERNATE TELEPHONE 8197593555  REPORT LINE NUMBER (867) 920-8130 |
| AGE<br>LEAI  | RECEIVED AT SPILL LINE BY D AGENCY DEC DCCG DC NCY D AGENCY | POSITION STATION OPERATOR GNWT GN ILA INAC | REPORT LINE U         | SIGNIFICANCE   MINOR   M                          | LOCATION CALLED YELLOWKNIFE, NT AJOR  UNKNOWN FILE S | ALTERNATE TELEPHONE 8197593555  REPORT LINE NUMBER (867) 920-8130 |



## Follow Up Report: #18-455 November 17, 2018 Retention Tank Overflow

### **Description of Incident:**

Due to freezing of an outlet hose and valve at the Exploration Camp Sewage Treatment Plant retention tank, the retention tank could not be emptied. The tank overflowed treated sewage effluent within the Sea-can housing and made contact with the ground via a hole in the door. The flow extended less than 5m from the spill source and the nearest water body, Meliadine Lake is approximately 78m from the source.

## Spill Response & Cleanup:

Following the overflow, water to the Exploration Camp was temporarily shut down, the hose and valve was thawed and the retention tank was emptied. Treated effluent was frozen in place beneath the Mel-7 pipeline. The material was removed with ice picks and transported to CP1.

## **Spill Cause and Corrective Measures**

The Sea-Can containing the retention tank had shifted in such a way that the door was not able to be closed completely, and had been left slightly ajar. Although a heater runs inside the Sea-Can, the outside temperature was less than -30°C, which led to the freezing of the hose and valve. As a preventative measure, an insulated plywood door was installed on the Sea-Can so that it can be closed completely and prevent freezing in the future.

Treated water at this location is sampled and tested weekly (MEL-7 sampling location). At the time of the spill, the most recent results were that of the November 5<sup>th</sup> sample, which indicated a fecal coliform level of <2 CFU/100ml reported in the original spill report. Following the spill, two further sets of results showed all parameters were well below the former Type B (1424) water license discharge limits (Table 1).

Table 1: Results of lab analysis from MEL-7 treated effluent and corresponding license discharge limits.

| Parameter              | Type B 1424 License<br>Limits  | 2018-11-05 Results | 2018-11-12 Results | 2018-11-19 Results |  |
|------------------------|--------------------------------|--------------------|--------------------|--------------------|--|
| рН                     | 6.0 to 9.5                     | 6.91               | 7.08               | 7.61               |  |
| TSS                    | 100 mg/L                       | 2                  | 1                  | 4                  |  |
| Oil & Grease           | 5 mg/L                         | <0.50              | 0.90               | 1.6                |  |
| <b>Fecal Coliforms</b> | Fecal Coliforms 1000 CFU/100mL |                    | <2                 | 10                 |  |
| BOD5                   | 80 mg/L                        | <2                 | 3                  | 7                  |  |



Figure 1: 2018-11-17 – The day of spill, before clean up.



Figure 2: 2018-11-30 – After clean up with new door installed.





OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

| ^  | REPORT DATE: MONTH – DAY   | -YEAR  |   | REPORT T                          | IME          |                               | STODICINAL CDILL                           |   |                                |  |
|--|--|--|---|-----------------------------------|--------------|-------------------------------|--|---|--------------------------------|--|
| Α  | 11-12-2018   |  | 09:45   |                                   |              | ▼ORIGINAL SPILL REPORT,<br>OR |  | REPORT NUMBER                                   |                                |  |
| В  | OCCURRENCE DATE: MONTH – DAY – YEAR 11-12-2018   |  |   | OCCURRENCE TIME 13:30             |              |                               | □ UPDATE #<br>TO THE ORIGINAL SPILL REPORT |   | <u>18 - 477</u>                |  |
| _  | LAND USE PERMIT NUMBER (   | IF APPLICABLE)   |   |                                   | WATER LICENC | E NUMBER                      | (IF APPLICABLE)                            |   |                                |  |
| C  | KVPL11D01  |  |   | 2AM-MEL1631                       |              |                               |  |   |                                |  |
| D  | GEOGRAPHIC PLACE NAME C Meliadine Gold Pi  | CATION   | ON REGION  □ NWT MENUNAVUT □ ADJACENT JURISDICTION OR OCEAN |                                   |              |                               |  |   |                                |  |
| _  | LATITUDE   |  |   | L                                 | LONGITUDE    |                               |  |   |                                |  |
| Ε  | DEGREES 63   | MINUTES 1  | SECONDS 24  | [                                 | DEGREES 9    | 2                             | MINUTES                                    | <b>11</b> si                                    | ECONDS 7                       |  |
| F  | RESPONSIBLE PARTY OR VES   |  | RESPONSIBLE PA  |                                   |              |                               | ut, X0C 0G0                                |   |                                |  |
| G  | ANY CONTRACTOR INVOLVED  None  | NY CONTRACTOR INVOLVED CONTRACTOR ADDRESS OR OFFICE LOCATION |   |                                   |              |                               |  |   |                                |  |
|  | PRODUCT SPILLED  Boiler System Water  QUANTITY IN LI 200L  |  |   | TRES, KILOGRAMS OR CUBIC METRES   |              |                               | S U.N. NUMBER                              |   |                                |  |
| Н  | GEOGRAP (INCADED) (IN ATTEROADED)  |  | QUANTITY IN LITE  | LITRES, KILOGRAMS OR CUBIC METRES |              |                               | S U.N. NUMBER                              |   |                                |  |
|  |  |  | SPILL CAUSE   |                                   |              |                               |  | AREA OF CONTAMINATION IN SQUARE METRES          |                                |  |
|  | Boiler System Equipm   |  |   |                                   | re           |                               | 20   |   |                                |  |
| J  | •   · · · · · · · · · · · · · · · · · ·  |  |   | SSISTANCE REQUIRED                |              |                               | HAZARDS TO F                               | HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT  None |                                |  |
| K  | with corrosion inhibitor (Drewgard 4109) spilled to ground. The water froze 8m3 of snow mixed with spilled material was taken to P3, a containment pond with the sites managed water system. Last analysis of Drewgard concentration was 0.195ppm. No water body was impacted. The nearest body of water is >300m away.  Dan Gorton ext 4603996, Matt Gillman ext 4603172, Kevin Buck 8198604515 |  |   |                                   |              |                               |  |   |                                |  |
| ī  | REPORTED TO SPILL LINE BY  |  |   | EMPLOYE                           |              |                               | LOCATION CALLING                           |   | ELEPHONE                       |  |
|  | Matt Gillman   | Hydrology To   |   |                                   | o Eagle      |                               | Meliadine F                                | •   | 8197593555                     |  |
| M  | ANY ALTERNATE CONTACT  Daniel Gorton   | Env. Coordir   |   | Agnic                             | o Eagle      |                               | ALTERNATE CONTA<br>Meliadine F<br>LOCATION |   | ALTERNATE TELEPHONE 8197593555 |  |
|  |  |  | REPORT LINE   | USE ON                            | LY           |                               |  |   |                                |  |
| N  | RECEIVED AT SPILL LINE BY  | POSITION   | EMPLOY  |                                   | ŒR LC        |                               |  |   | REPORT LINE NUMBER             |  |
|  | STATION OPERATOR   |  |   |                                   | YE           |                               | ELLOWKNIFE, NT (                           |   | 867) 920-8130                  |  |
| LEAD AGENCY   EC   CCG   GNWT   GN   ILA   INAC   NEB   TC |  |  | C □ NEB □ TC  | SIGNIFICANCE □ MINOR □ MAJOR      |              |                               | JOR   UNKNOWN                              | R 🗆 UNKNOWN FILE STATUS 🗆 OPEN 🗆 CLOSED         |                                |  |
| AGENCY CONTACT NAME  |  |  |   | CONTACT TIME                      |              |                               | REMARKS                                    | REMARKS   |                                |  |
| LEAD AGENCY  |  |  |   |                                   |              |                               |  |   |                                |  |
| FIRST SUPPORT AGENCY                                       |  |  |   |                                   |              |                               |  |   |                                |  |
| SEC  | OND SUPPORT AGENCY   |  |   |                                   |              |                               |  |   |                                |  |
| THIRD SUPPORT AGENCY                                       |  |  |   |                                   |              |                               |  |   |                                |  |



## Follow Up Report: #18-477 December 11, 2018 Boiler Recirculation Loop Leak

### **Description of Incident:**

Due to failure of an expansion joint on the boiler recirculation system, approximately 200L of water with corrosion inhibitor (Drewgard 4109) spilled to ground. The coordinates of the spill were, 63° 2'19.52"N, 92°13'39.97"W. The water froze and 8m³ of snow and ice was transferred to P3, a containment pond within the site's managed water system. Most recently analyzed at 0.195ppm. No water body was impacted. The nearest body of water is >300m away.



## Spill Response & Cleanup:

Site personnel shut off values preventing further release of water from the boiler recirculation system. Water followed through the floor of the Arctic corridor to ground and froze. Frozen water from the system was cleaned up with heavy equipment. Material was transported and contained in P3, part of the site's water management system. A sample of the boiler system water was collected for analysis.

## **Spill Cause and Corrective Measures**

The release occurred due to the failure of an expansion joint in the boiler recirculation system. The cause of the failed component is unknown. The expansion joint was replaced and the system inspected for leaks.



Figure 1: Water from boiler recirculation system flowing to ground.



Figure 2: Frozen material cleaned up and transported to P3.