



Bureau of Air Pollution Control

901 South Stewart Street, Suite 4001 • Carson City, NV 89701-5249

phone: 775-687-9349 • www.ndep.nv.gov/air

Facility ID No. A2214

Permit No. AP1041-4682

MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: SOLIDUS RESOURCES, LLC – SPRING VALLEY MINE PROJECT (HEREINAFTER REFERRED TO AS *THE PERMITTEE*)

Mailing Address: 2000 VASSAR STREET, P.O. BOX 11340, RENO, NEVADA 89510

Physical Address: 21 MILES NORTHEAST OF LOVELOCK ON LOVELOCK-UNIONVILLE RD.

General Facility Location: SECTIONS 24-28, 33-36; T29N, R34E, MDB&M

SECTIONS 19-21, 28-32; T29N, R35E, MDB&M

SECTIONS 1-4; T28N, R34E, MDB&M

SECTIONS 4-6, T28N, R35E, MDB&M

HA 129 BUENA VISTA VALLEY AND 73A LOVELOCK VALLEY

PERSHING COUNTY

FRONT GATE 4,463,762 M NORTH, 401,328 EAST UTM ZONE 11, NAD 83

Driving Directions: FROM LOVELOCK, TAKE I-80 E FOR APPROXIMATELY 12.6 MILES. TAKE EXIT 119 TOWARDS NV-858 E AND TURN RIGHT ONTO NV-858 E. CONTINUE ONTO LOVELOCK-UNIONVILLE ROAD AND DRIVE APPROXIMATELY 14 MILES TO THE PROJECT LOCATION.

Emission Unit List: 6 total

A. System 01 – Carbon Kiln (System 21 in Class I AQOP AP1041-4681)

TU	4.001	Carbon Kiln (S2.041 in Class I AQOP)
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B. System 02 – Electrowinning Circuit (System 22 in Class I AQOP AP1041-4681)

TU	4.002	Electrowinning Cells (S2.042 in Class I AQOP)
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TU	4.003	Barren Tank (S2.043 in Class I AQOP)
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TU	4.004	Eluant Tank (S2.044 in Class I AQOP)
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C. System 03 – Retort (System 23 in Class I AQOP AP1041-4681)

TU	4.005	Retort (S2.045 in Class I AQOP)
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D. System 04 – Furnace (System 24 in Class I AQOP AP1041-4681)

TU	4.006	Furnace (S2.046 in Class I AQOP)
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Section I. General Conditions

The Permittee must comply with, but is not limited to, all conditions of Nevada Administrative Code (NAC) 445B.3611-3689 “Nevada Mercury Air Emissions Control Program”, inclusive.

A. Records Retention. NAC 445B.3679.2(a) and NAC 445B.3685.2(b)

The Permittee of a Mercury Operating Permit to Construct shall retain records of all required monitoring data and support information for (5) years after the date of the sample collection, measurement, report or analysis. Supporting information includes, without limitation, all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

B. Severability. NAC 445B.3679.2(b) NAC 445B.3685.2(c)

Each of the conditions and requirements of the Mercury Operating Permit to Construct is severable and, if any are held invalid, the remaining conditions and requirements continue in effect.

C. Compliance/Noncompliance. NAC 445B.3679.2(c) and NAC 445B.3685.2(d)

The Permittee must comply with all conditions of the Mercury Operating Permit to Construct. Any noncompliance constitutes a violation and is grounds for:

1. An action for noncompliance;
2. The revoking and reissuing, or the terminating of the Mercury Operating Permit to Construct by the Director; or
3. The reopening or revising of the Mercury Operating Permit to Construct by the holder of the Mercury Operating Permit to Construct as directed by the Director.

D. Defense to Noncompliance. NAC 445B.3679.2(d) and NAC 445B.3685.2(e)

The need to halt or reduce activity to maintain compliance with the conditions of the Mercury Operating Permit to Construct is not a defense to noncompliance with any conditions of the Mercury Operating Permit to Construct.

E. Cause. NAC 445B.3679.2(e) and NAC 445B.3685.2(f)

The Director may revise, revoke and reissue, reopen and revise, or terminate the Mercury Operating Permit to Construct for cause.

F. Property Rights/Exclusive Privilege. NAC 445B.3679.2(f) and NAC 445B.3685.2(g)

The Mercury Operating Permit to Construct does not convey any property rights or any exclusive privilege.

G. Information Request from Director. NAC 445B.3679.2(g) and NAC 445B.3685.2(h)

The Permittee shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revoking or terminating the Mercury Operating Permit to Construct or to determine compliance with the conditions of this Mercury Operating Permit to Construct.

H. Right to Entry. NAC 445B.3679.2(h) and NAC 445B.3685.2(i)

The Permittee shall allow the Director or any authorized representative of the Director, upon the presentation of credentials, to:

1. Enter upon the premises of *the Permittee* where:
 - a. The thermal unit that emits mercury is located;
 - b. Activity related to mercury emissions is conducted; or
 - c. Records are kept pursuant to the conditions of the Mercury Operating Permit to Construct.
2. Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the Mercury Operating Permit to Construct;
3. Inspect, at reasonable times, any facilities, practices, operations, or equipment, including any equipment for monitoring or controlling air pollution, that are regulated or required pursuant to the Mercury Operating Permit to Construct; and
4. Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of the Mercury Operating Permit to Construct or applicable requirements.



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Section I. General Conditions (continued)

I. Certify True and Accurate. NAC 445B.3679.2(i) and NAC 445B.3685.2(j)

A responsible official of the stationary source shall certify that, based on information and belief formed after reasonable inquiry, the statements made in any document required to be submitted by any condition of the Mercury Operating Permit to Construct are true, accurate and complete.

J. Yearly Reporting. NAC 445B.3679.3(b, c, d) NAC 445B.3685.3(b)(c)(e)

The Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, emissions and mercury co-product. These reports and supporting documentation (if applicable) will be submitted via the State and Local Emissions Inventory System (SLEIS) maintained by the Bureau of Air Quality Planning for all emission units/systems specified. The completed report must be submitted to the Bureau of Air Quality Planning no later than March 1 annually for the preceding calendar year.

K. Facilities Operation NAC 445B.227

The Permittee may not:

1. Operate a stationary source of air pollution unless the control equipment for air pollution that is required by applicable requirements or conditions of the Mercury Operating Permit to Construct are installed and operating.
2. Disconnect, alter, modify or remove any of the control equipment for air pollution or modify any procedure required by an applicable requirement or condition of the Mercury Operating Permit to Construct.

L. Excess Emissions NAC 445B.232

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive, must be approved by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. The Director must be notified in writing of the time and expected duration at least 24 hours in advance of any scheduled maintenance which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive.
3. The Director must be notified in writing or by telephone of the time and expected duration at least 24 hours in advance of any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive.
4. The Director must be notified of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during startup or shutdown of such equipment. E-mail to: enotify@ndep.nv.gov.
5. **The Permittee**, as the owner or operator of an affected facility, shall provide the Director, within 15 days after any malfunction, upset, startup, shutdown, or human error which results in excess emissions, sufficient information to enable the Director to determine the seriousness of the excess emissions. The information must include at least the following:
 - a. The identity of the stack or other point of emission, or both, where the excess emissions occurred.
 - b. The estimated magnitude of the excess emissions expressed in units of the applicable limitation on emission and the operating data and methods used in estimating the magnitude of the excess emissions.
 - c. The time and duration of the excess emissions.
 - d. The identity of the equipment causing the excess emissions.
 - e. If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunction.
 - f. The steps taken to limit the excess emissions.
 - g. Documentation that the equipment for controlling air pollution, process equipment, or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.



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Section I. General Conditions (continued)

M. Construction Requirements NAC 445B.250

The Permittee shall provide the Director written notification of:

1. The date that construction or reconstruction of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form.
2. The anticipated date of initial startup of an affected facility, postmarked not more than 60 days and not less than 30 days prior to such date.
3. The actual date of initial startup of an affected facility, postmarked within 15 days after such date.

N. Testing and Sampling NAC 445B.252

1. To determine compliance with NAC 445B.001 to 445B.3689, inclusive, before the approval or the continuance of an operating permit or similar class of permits, the director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the director determines necessary. Testing and sampling or either of them must be conducted and the results submitted to the director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial startup of the facility and at such times as may be required by the director.
2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the director:
 - a. Specifies or approves, in specific cases, the use of a method of reference with minor changes in methodology;
 - b. Approves the use of an equivalent method;
 - c. Approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific stationary source is in compliance; or
 - d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the director's satisfaction that the affected facility is in compliance with the standard.
3. Tests of performance must be conducted under such conditions as the director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the director such records as may be necessary to determine the conditions of the performance test. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a performance test unless otherwise specified in the applicable standard.
4. ***The Permittee*** shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures.
5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the director's approval.
6. All testing and sampling will be performed in accordance with recognized methods and as specified by the director.
7. The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power and other pertinent allied facilities as may be required and specified in writing by the director must be provided and paid for by the owner of the stationary source.
8. All information and analytical results of testing and sampling must be certified as to their truth and accuracy and as to their compliance with all provisions of NAC 445B.001 to 445B.3689, inclusive, and copies of these results must be provided to the director no later than 60 days after the testing or sampling, or both.

O. SIP Article 2.5.4 Federally Enforceable SIP Requirement

Breakdown or upset, determined by the Director to be unavoidable and not the result of careless or marginal operations, shall not be considered a violation of these regulations.



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Section I. General Conditions (continued)

P. Expiration and Extension NAC 445B.3687

1. If construction will occur in one phase, a mercury operating permit to construct for a new or modified thermal unit that emits mercury expires if construction is not commenced within 18 months after the date of issuance thereof or construction of the thermal unit that emits mercury is delayed for 18 months after initiated. The Director may extend the date on which the construction may be commenced upon a showing that the extension is justified.
2. If construction will occur in more than one phase, the projected date of the commencement of construction of each phase of construction must be approved by the Director. A mercury operating permit to construct expires if the initial phase of construction is not commenced within 18 months after the projected date of the commencement of construction approved by the Director. The Director may extend only the date on which the initial phase of construction may be commenced upon a showing that the extension is justified.

Q. Nevada Mercury Control Program Implementation NAC 445B.3679 and NAC 445B.3685

1. Construction on **Systems 01 - 04** must commence within 18 months after the issuance date of this permit. The issuance date for **Systems 01 - 04** is **XXX, 2025**. The NvMACT for **Systems 01 - 04**, each, must be implemented upon startup.
2. **The Permittee** shall provide the Director written notification of:
 - a. The date of implementation of NvMACT for **TU4.001 – TU4.006**, each.

R. Annual Reporting NAC 445B.3679 and NAC 445B.3685

The Permittee shall:

1. Report mercury co-product on an annual basis.
2. Report the level of mercury emissions on an annual basis which must be based on mercury emissions test data.

***** **End of General Conditions** *****



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Section II. Specific Operating Conditions

A. Emission Unit #TU4.001 Location North 4,467,538 m, East 409,088 m, UTM (Zone 11, NAD 83)

System 01 – Carbon Kiln		
TU	4.001	Carbon Kiln

1. Air Pollution Control Equipment

- a. Emissions from **TU4.001** shall be ducted to a control system with 100% capture consisting of:
 - (1) **Knockout Box (KB-001)** (*manufacturer by CGS*)
 - (2) **Condenser (CO-001)** (*manufactured by CGS*)
 - (3) **Carbon Bed (CB-001)** (*manufactured by CGS*)
- b. **Descriptive Stack Parameters**
Height: 25.0 feet
Diameter: 0.50 feet
Temperature: Approximately 100.0 °F
Exhaust gases from **TU4.001** shall have a maximum volume flow rate of approximately **400.0** actual cubic feet per minute (ACFM).

2. Construction Requirements (NAC 445B.250)

The **Permittee** shall provide the Director written notification of:

- a. The date that construction of **TU4.001** is commenced postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form.
- b. The anticipated date of initial startup of **TU4.001**, postmarked not more than 60 days nor less than 30 days prior to such date.
- c. The actual date of initial startup of **TU4.001**, postmarked within 15 days after such date.

3. Operating Requirements (NAC 445B.3685.3)

- a. Limitations of Operation
 - (1) The maximum allowable throughput of **process carbon** for **TU4.001** shall not exceed **0.50** ton per any one-hour period.
Process Carbon is defined by:
 - (a) Carbon utilized in the gold recovery process
 - (b) Carbon that is not utilized in any air pollution control device.
 - (2) Mercury emissions from **TU4.001** shall not exceed **1.0 x 10⁻⁴** grains per dry standard cubic foot (gr/dscf).
 - (3) Hours
TU4.001 may operate 24 hours per day.



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Section II. Specific Operating Conditions (continued)

A. Emission Unit #TU4.001 Location North 4,467,538 m, East 406,088 m, UTM (Zone 11, NAD 83)

3. Operating Requirements (NAC 445B.3685.3) (continued)

b. Work Practices

- (1) Carbon Kiln (**TU4.001**)
 - (a) The drum for **TU4.001** shall be visually inspected for structural damage and cracks annually.
 - (b) The temperature within **TU4.001** shall be kept below **850.0° Celsius**.
- (2) Knockout Box (**KB-001**)
 - (a) The differential pressure across **KB-001** shall be maintained at or above **15.0** in of water column.
- (3) Condenser (**CO-001**)
 - (a) The water flow rate to **CO-001** shall be maintained at or above **130.0** gallons per minute.
 - (b) The condensed mercury from **CO-001** shall be collected quarterly.
- (4) Carbon Bed (**CB-001**)
 - (a) The carbon bed **CB-001** shall contain no less than **1,500.0** pounds of sulfur-impregnated carbon.
 - (b) The exhaust temperature at the inlet to the carbon bed **CB- 001** shall not exceed **200.0° Fahrenheit**.
 - (c) The differential pressure across **CB- 001** shall not exceed **16.0** inches water column.
 - (d) Sample and replace the carbon in **CB- 001** according to the following schedule:
Sample the carbon at the inlet and outlet of the carbon bed **CB-001** and record the depth of the sample probe within **90** days after replacement of the carbon. The sampled carbon shall be analyzed for mercury and the average percentage of mercury, by weight, shall be calculated. The loading capacity of the sulfur-impregnated carbon is **20%** by weight. A sample of carbon shall be analyzed quarterly until **50%** of the carbon loading capacity is reached. Upon reaching **50%** of the carbon loading capacity, the sampling of carbon shall occur monthly until **90%** of the carbon loading capacity is reached. The carbon in the carbon bed **CB- 001** shall be replaced no later than **30** days after reaching **90%** of the carbon loading capacity. The required mercury analysis shall be performed utilizing one of the following methods:
 - (i) EPA Method 6020 – Inductively Coupled Plasma-Mass Spectrometry;
 - (ii) EPA Method 7471B – Mercury in Solid of Semi-solid Waste (Manual Cold Vapor Technique); or
 - (iii) An alternative test method as approved by the Director.
 - (e) On an annual basis, perform a total loading analysis on the mercury removal media in **CB- 001**.
 - (f) Any sulfur-impregnated carbon replaced in **CB- 001** shall be replaced with only the original manufacturer's design specification sulfur-impregnated carbon or with equivalent, or better performing mercury removal media.
 - (g) The original manufacturer's design specifications for the sulfur-impregnated carbon used in **CB- 001** shall be kept on site.

4. Compliance Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3685.3)

a. Compliance Testing

- (1) Within 60 days after achieving the maximum rate of production at which **TU4.001** will be operated, but not later than 180 days of initial startup of **TU4.001**, and annually thereafter, the Permittee shall conduct and record a performance test for mercury on the exhaust stack of **TU4.001** consisting of three valid runs utilizing US EPA Method 29 of 40 CFR Part 60 Appendix A. Each of the three test runs must collect a sample volume of **0.85** dry standard cubic meters (**30 dscf**).
- (2) Simultaneously, during the Method 29 compliance test, conduct and record a material assay from **System 01**. One representative sample shall be taken for each test run. Total mercury content shall be determined using EPA Method 7471B (cold vapor atomic adsorption analysis) (or alternative test method approved by the Director).
- (3) The Permittee shall comply with the requirements in Section I.N of this operating permit for all compliance testing.



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Section II. Specific Operating Conditions (continued)

A. Emission Unit #TU4.001 Location North 4,467,538 m, East 406,088 m, UTM (Zone 11, NAD 83)

4. Compliance Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3685.3) (continued)

b. Monitoring

The Permittee shall:

- (1) Install, operate, calibrate, and maintain instrumentation to continuously measure and record the following for **TU4.001**.
 - (a) The temperature of the **Carbon Kiln** in degrees Celsius.
 - (b) The differential pressure of **KB-001** in inches of water column.
 - (c) The water flow rate to **CO-001**, in gallons per minute.
 - (d) The exhaust gas temperature entering **CB-001**, in degrees Fahrenheit.
- (2) Install, operate, calibrate, and maintain an exhaust gas temperature interlock that will shut off **TU4.001** if the Carbon Kiln temperature reaches **850°C** or if the exhaust gas temperature entering **CB-001** is **200°F** or greater.
- (3) Monitor the daily batch weight of **process carbon**, in tons, for each batch.
- (4) Monitor the daily hours for each batch, during each day of operation.
- (5) Monitor the water flow rate for **CO-001**, continuously during operation. The hourly average water flow rate readings, determined from each successive 15-minute period, shall be recorded for the corresponding date.
- (6) Monitor the amount of mercury drained from **CO-001** quarterly.
- (7) Monitor the inlet exhaust temperature for the carbon bed **CB-001** continuously during operation. The hourly average inlet exhaust temperature readings, determined from each successive 15-minute period, shall be recorded for the corresponding date.
- (8) Monitor the differential pressure of **CB-001** once per batch, during each day of operation.
- (9) Monitor the percentage of mercury, by weight, on the carbon in the carbon bed **CB-001** quarterly until reaching 50% of the loading capacity, and then monthly until reaching 90% of the loading capacity.
- (10) Monitor the date and time of the annual inspection of the drum for **TU4.001**.



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Section II. Specific Operating Conditions (continued)

A. Emission Unit #TU4.001 Location North 4,467,538 m, East 406,088 m, UTM (Zone 11, NAD 83)

4. Compliance Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3685.3) (continued)

c. Recordkeeping

The required monitoring established in Section A.4.b above, shall be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:

- (1) The calendar date of any required monitoring.
- (2) The total daily throughput of **process carbon**, in tons, for the corresponding date.
- (3) The total daily hours of operation for the corresponding date.
- (4) The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput rate and the total daily hours of operation recorded in Section A.4.c.(2) through Section A.4.c.(3) above.
- (5) The temperature within the **Carbon Kiln** in degrees Celsius.
- (6) The differential pressure across **KB-001** in inches of water column.
- (7) The water flow rate to **CO-001**, in gallons per minute, for the corresponding date.
- (8) The amount of mercury drained from **CO-001**, in pounds, for the corresponding date.
- (9) The inlet exhaust temperature entering **CB-001**, in degrees Fahrenheit, for the corresponding date.
- (10) The differential pressure across **CB-001**, in inches water column, for the corresponding date.
- (11) The percentage of mercury by weight of the sulfur-impregnated carbon in **CB-001** from the mercury analysis, for the corresponding date.
- (12) The depth of the sample probe from the carbon sampling on **CB-001** for the corresponding date.
- (13) The date and weight of each sulfur-impregnated carbon replacement for **CB-001**, for the corresponding date.
- (14) The date and corrective action taken for an interlock shut-down, for the corresponding date.
- (15) The date and results of the annual drum inspections of TU4.001 for structural damage and/or cracks.

e. Reporting

- (1) The date and description of any interlock event and corresponding corrective action.
- (2) **The Permittee** shall promptly report to the Director any emissions and or throughput exceedances from **System 01**. The report to the Director shall include probable cause and any action taken to correct the exceedance. For this Operating Permit to Construct, prompt is defined as submittal of a report within 15 days of said deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under condition I.L of this operating permit.
- (3) **The Permittee** will report annually to the Director the amount of mercury collected from the condenser (**CO-001**), in pounds for the reporting year.



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Section II. Specific Operating Conditions (continued)

B. Emission Units #TU4.002 – TU4.004 Location North 4,467,521 m, East 409,082 m, UTM (Zone 11, NAD 83)

System 02 – Electrowinning Circuit		
TU	4.002	Electrowinning Circuit (Six cells configured in parallel, EW-001 through EW-006)
TU	4.003	Barren Tank (BT-001)
TU	4.004	Eluant Tank (ET-001)

1. Air Pollution Control Equipment

- a. Emissions from TU4.002 – TU4.004 shall be ducted to a control system with 100% capture consisting of:
 - (1) **Carbon Bed (CB-002)** (*manufactured by CGS*)
- b. **Descriptive Stack Parameters**
Height: 25.0 feet
Diameter: 1.25 feet
Temperature: Approximately 146.0° F
Exhaust gases from TU4.002 – TU4.004 shall have a maximum volume flow rate of approximately **4,000.0** actual cubic feet per minute (ACFM).
TU4.002 – TU4.004 share a single exhaust stack.

2. Construction Requirements (NAC 445B.250)

The **Permittee** shall provide the Director written notification of:

- a. The date that construction of TU4.002 – TU4.004 is commenced postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form.
- b. The anticipated date of initial startup of TU4.002 – TU4.004, postmarked not more than 60 days nor less than 30 days prior to such date.
- c. The actual date of initial startup of TU4.002 – TU4.004, postmarked within 15 days after such date.

3. Operating Requirements (NAC 445B.3685.3)

- a. **Limitations of Operation**
 - (1) The maximum allowable throughput of **precious metal bearing solution** for TU4.002 – TU4.004, each shall not exceed **200.0 gallons per minute of precious metal bearing solution**.
 - (2) Mercury emissions from TU4.002 – TU4.004, **combined** shall not exceed **5.0 x 10⁻⁵** grains per dry standard cubic foot (gr/dscf).
 - (3) **Hours**
 - (a) TU4.002 – TU4.004, each, may operate **24** hours per day



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Section II. Specific Operating Conditions (continued)

B. Emission Units #TU4.002 – TU4.004 Location North 4,467,521 m, East 409,082 m, UTM (Zone 11, NAD 83)

3. Operating Requirements (continued)

b. Work Practices

(1) Electrowinning Cells (TU4.002)

(a) The lids on **TU4.002** shall be closed during operation.

(2) Barren and Eluant Tanks (TU4.003 – TU4.004)

(a) **TU4.003** and **TU4.004**, each, shall be inspected every six months for leaks and corrosion.

(3) Carbon Bed (CB-002)

(a) The carbon bed **CB-002** shall contain no less than **11,000.0** pounds of sulfur-impregnated carbon.

(b) The exhaust temperature at the inlet to the carbon bed **CB-002** shall not exceed **200.0° Fahrenheit**.

(c) The differential pressure across **CB-002** shall not exceed **16.0** inches of water column.

(d) Sample and replace the carbon in **CB-002** according to the following schedule:

Sample the carbon at the inlet and outlet of the carbon bed **CB-002** and record the depth of the sample probe within **90** days after replacement of the carbon. The sampled carbon shall be analyzed for mercury and the average percentage of mercury, by weight, shall be calculated. The loading capacity of the sulfur-impregnated carbon is **20%** by weight. A sample of carbon shall be analyzed quarterly until **50%** of the carbon loading capacity is reached. Upon reaching **50%** of the carbon loading capacity, the sampling of carbon shall occur monthly until **90%** of the carbon loading capacity is reached. The carbon in the carbon bed **CB-002** shall be replaced no later than **30** days after reaching **90%** of the carbon loading capacity. The required mercury analysis shall be performed utilizing one of the following methods:

(i) EPA Method 6020 – Inductively Coupled Plasma-Mass Spectrometry;

(ii) EPA Method 7471B – Mercury in Solid or Semi-solid Waste (Manual Cold Vapor Technique); or

(iii) An alternative test method as approved by the Director.

(e) On an annual basis, perform a total loading analysis on the mercury removal media in **CB-002**.

(f) Any sulfur-impregnated carbon replaced in **CB-002** shall be replaced with only the original manufacturer's design specification sulfur-impregnated carbon or with equivalent, or better performing mercury removal media.

(g) The original manufacturer's design specifications for the sulfur-impregnated carbon used in **CB-002** shall be kept on site.

4. Compliance Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3685.3)

a. Compliance Testing

(1) Within 60 days after achieving the maximum rate of production at which **System 02** will be operated, but not later than 180 days of initial startup of **System 02**, and annually thereafter, *the Permittee* shall conduct and record a performance test for mercury on the exhaust stack of **System 02** consisting of three valid runs utilizing US EPA Method 29 of 40 CFR Part 60 Appendix A. Each of the three test runs must collect a sample volume of **0.85** dry standard cubic meters (**30 dscf**).

(2) Simultaneously, during the Method 29 compliance test, conduct and record a material assay from **System 02**. One representative sample shall be taken for each test run. Total mercury content shall be determined using EPA Method 7471B (cold vapor atomic adsorption analysis) (or alternative test method approved by the Director).

(3) *The Permittee* shall comply with the requirements in Section I.N of this operating permit for all compliance testing.



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Permit No. AP1041-4682

MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

B. Emission Units #TU4.002 – TU4.004 Location North 4,467,521 m, East 409,082 m, UTM (Zone 11, NAD 83)

4. Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3679.3) (continued)

b. Monitoring

The Permittee shall:

- (1) Install, operate, calibrate, and maintain instrumentation to measure and record the following for **TU4.002, TU4.003, and TU4.004**:
 - (a) The **precious metal solution** throughput rate of **TU4.002, TU4.003 and TU4.004, each**, in gallons per minute.
 - (b) The inlet exhaust temperature for **CB-002** in degrees Fahrenheit.
 - (c) The differential pressure across **CB-002**, in inches of water.
- (2) Monitor the total daily hours of operation for **TU4.002**.
- (3) Monitor the throughput rate of **precious metal solution** for **TU4.002** in gallons per minute, once per day, during operation.
- (4) Monitor the total daily hours of operation for **TU4.003**.
- (5) Monitor the throughput rate of **precious metal solution** for **TU4.003** in gallons per minute, once per day, during operation.
- (6) Monitor the total daily hours of operation for **TU4.004**.
- (7) Monitor the throughput rate of **precious metal solution** for **TU4.004** in gallons per minute, once per day, during operation.
- (8) Monitor the inlet exhaust temperature for the carbon bed **CB-002** continuously during operation. The hourly average exhaust temperature readings, determined from each successive 15-minute period, shall be recorded for the corresponding date.
- (9) Monitor the differential pressure of **CB-002** once per day, during operation.
- (10) Monitor the percentage of mercury, by weight, on the carbon in the carbon bed **CB-002** quarterly until reaching 50% of the loading capacity, and then monthly until reaching 90% of the loading capacity.

c. Recordkeeping

The required monitoring established in Section B.4.b above, shall be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:

- (1) The calendar date of any required monitoring.
- (2) The total daily hours of operation for **TU4.002**, for the corresponding date.
- (3) The throughput rate of **precious metal solution** for **TU4.002** in gallons per minute, once per day, during operation, for the corresponding date.
- (4) The total daily hours of operation for **TU4.003**, for the corresponding date.
- (5) The throughput rate of **precious metal solution** for **TU4.003** in gallons per minute, once per day, during operation, for the corresponding date.
- (6) The total daily hours of operation for **TU4.004**, for the corresponding date.
- (7) The throughput rate of **precious metal solution** for **TU4.004** in gallons per minute, once per day, during operation, for the corresponding date.
- (8) The differential pressure across **CB-002** in inches of water, once per day, during operation for the corresponding date.
- (9) The inlet exhaust temperature to **CB-002**, in degrees Fahrenheit, continuously, for the corresponding date, based on a one hour period.
- (10) The percentage of mercury by weight of the sulfur-impregnated carbon in **CB-002** from the mercury analysis, for the corresponding date.
- (11) The depth of the sample location in **CB-002** from the mercury analysis, for the corresponding date.
- (12) The date and weight of each sulfur-impregnated carbon replacement for **CB-002**, for the corresponding date.
- (13) The results of the inspections for **TU4.002 - TU4.004**, for the corresponding date.



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MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

B. Emission Units #TU4.002 – TU4.004 Location North 4,467,521 m, East 409,082 m, UTM (Zone 11, NAD 83)

4. Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3679.3) (continued)

e. Reporting

The Permittee shall promptly report to the Director any emissions and or throughput exceedances from **System 02**. The report to the Director shall include probable cause and any action taken to correct the exceedance. For this Operating Permit to Construct, prompt is defined as submittal of a report within 15 days of said deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under condition I.L of this operating permit.

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MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

C. Emission Unit #TU4.005 Location North 4,467,525 m, East 409,080 m, UTM (Zone 11, NAD 83)

System 03 - Retort		
TU	4.005	Retort

1. Air Pollution Control Equipment

- a. Emissions from **TU4.005** shall be ducted to a control system with 100% capture consisting of:
 - (1) **Condenser (CO-002)** (*manufactured by CGS*)
 - (2) **Carbon Bed (CB-003)** (*manufactured by CGS*)
- b. **Descriptive Stack Parameters**
Height: 25.0 feet
Diameter: 0.33 feet
Temperature: approximately 150.0° F
Exhaust gases from **TU4.005** shall have a maximum volume flow rate of approximately 60.0 actual cubic feet per minute (ACFM).

1. Construction Requirements (NAC 445B.250)

The **Permittee** shall provide the Director written notification of:

- a. The date that construction of **TU4.005** is commenced postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form.
- b. The anticipated date of initial startup of **TU4.005**, postmarked not more than 60 days nor less than 30 days prior to such date.
- c. The actual date of initial startup of **TU4.005**, postmarked within 15 days after such date.

3. Operating Requirements (NAC 445B.3685.3)

- a. **Limitations of Operation**
 - (1) The maximum allowable throughput of **precious metal concentrate** for **TU4.005** shall not exceed **1.50** ton of **precious metal concentrate** per batch and **547.5 tons** of **precious metal concentrate** per year. **Precious metal concentrate** is defined by
 - (a) Material loaded with precious metals such as gold and silver, along with various other metals that is produced by electrowinning, the Merrill-Crowe process, flotation and gravity separation processes, and other gold concentration or precipitation processes.
 - (b) Material collected from the wash-down of any equipment or surfaces contacted with precious metals that have been concentrated through the various concentration methods employed by precious metal mines.
 - (2) Mercury emissions from **TU4.005** shall not exceed **1.0 x 10⁻⁴** grains per dry standard cubic foot (gr/dscf).
 - (3) **Hours**
 - (a) **TU4.005** may operate **24** hours per day.



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Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

C. Emission Unit #TU4.005 Location North 4,467,525 m, East 409,080 m, UTM (Zone 11, NAD 83)

3. Operating Requirements (NAC 445B.3685.3) (continued)

b. Work Practice

(1) Retort (TU4.005)

- (a) During heating of **TU4.005**, the negative gauge pressure shall be maintained at or above **200.0** millimeters of mercury (mm Hg).
- (b) **TU4.005** shall automatically shut off via interlock if the negative gauge pressure is less than **200.0** mm Hg.

(2) Condenser (CO-002)

- (a) Exhaust gas temperature at the discharge of **CO-002** shall be maintained at or below **200°F**.
- (b) The condensed mercury from **CO-002** shall be collected monthly.
- (c) **TU4.005** shall automatically shut off via interlock if the exhaust gas temperature at the discharge of **CO-002** is above **200.0°F**.
- (d) **TU4.005** shall automatically shut off via interlock if the **CO-002** water flow rate falls below **5.00** gallons per minute.
- (e) The water temperature entering **CO-002** shall be maintained at or below **50.0°F**.

(3) Carbon Bed (CB-003)

- (a) **CB-003** shall contain no less than **500.0** pounds of sulfur-impregnated carbon.
- (b) The differential pressure across **CB-003** shall not exceed **16.0** inches of water.
- (c) Sample and replace the carbon in **CB-003** according to the following schedule:
Sample the carbon at the inlet and outlet of the carbon bed **CB-003** and record the depth of the sample probe within **90** days after replacement of the carbon. The sampled carbon shall be analyzed for mercury and the average percentage of mercury, by weight, shall be calculated. The loading capacity of the sulfur-impregnated carbon is **20%** by weight. A sample of carbon shall be analyzed quarterly until **50%** of the carbon loading capacity is reached. Upon reaching **50%** of the carbon loading capacity, the sampling of carbon shall occur monthly until **90%** of the carbon loading capacity is reached. The carbon in the carbon bed **CB-003** shall be replaced no later than **30** days after reaching **90%** of the carbon loading capacity. The required mercury analysis shall be performed utilizing one of the following methods:
 - (i) EPA Method 6020 – Inductively Coupled Plasma-Mass Spectrometry;
 - (ii) EPA Method 7471B – Mercury in Solid or Semi-solid Waste (Manual Cold Vapor Technique); or
 - (iii) An alternative test method as approved by the Director.
- (d) On an annual basis, perform a total loading analysis on the mercury removal media in **CB-003**.
- (e) Any sulfur-impregnated carbon replaced in **CB-003** shall be replaced with only the original manufacturer's design specification sulfur-impregnated carbon or with equivalent performing mercury removal media.
- (f) The original manufacturer's design specifications for the sulfur-impregnated carbon used in **CB-003** shall be kept on site.



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Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

C. Emission Unit #TU4.005 Location North 4,467,525 m, East 409,080 m, UTM (Zone 11, NAD 83)

4. Compliance Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3685.3)

a. Compliance Testing

- (1) Within 60 days after achieving the maximum rate of production at which **TU4.005** will be operated, but not later than 180 days of initial startup of **TU4.005**, and annually thereafter, *the Permittee* shall conduct and record a performance test for mercury on the exhaust stack of **TU4.005** consisting of three valid runs utilizing US EPA Method 29 of 40 CFR Part 60 Appendix A. Each of the three test runs must collect a sample volume of **0.85** dry standard cubic meters (**30 dscf**).
- (2) Simultaneously, during the Method 29 compliance test, conduct and record a material assay from **System 03**. One representative sample shall be taken for each test run. Total mercury content shall be determined using EPA Method 7471B (cold vapor atomic adsorption analysis) (or alternative test method approved by the Director).
- (3) *The Permittee* shall comply with the requirements in Section I.N of this operating permit for all compliance testing.

b. Monitoring

The Permittee shall:

- (1) Install, operate, calibrate, and maintain instrumentation to measure and record the following for **TU4.005**.
 - (a) The negative gauge pressure of **TU4.005**, in mmHg.
 - (b) The outlet gas temperature **CO-002**, in degrees Fahrenheit.
 - (c) The differential pressure across **CB-003**, in inches of water.
 - (d) The water flow rate through **CO-002** in gallons per minute.
 - (e) The water temperature in **CO-002** in degrees Fahrenheit.
- (2) Install, operate, calibrate and maintain an interlock that will shut off **TU4.005**'s heating element if the negative gauge pressure is less than **200.0 mmHg**.
- (3) Install, operate, calibrate and maintain an interlock that will shut off when the water flow is below **5.00 gallons per minute** in **CO-002**.
- (4) Install, operate, calibrate and maintain an exhaust gas temperature interlock that will shut off the **TU4.005** heating element if the exhaust gas from the condenser is **200.0° F** or greater in **CO-002**.
- (5) Monitor the batch weight of **precious metal concentrate** for **TU4.005** in pounds, for each batch.
- (6) Monitor the total throughput of **precious metal concentrate** for **TU4.005** in tons, annually.
- (7) Monitor the daily hours of operation per batch for **TU4.005**, during each day of operation.
- (8) Monitor the negative vacuum gauge pressure for **TU4.005** in mmHg, continuously during operation.
- (9) Monitor the outlet gas temperature **CO-002** in degrees Fahrenheit, continuously during operation.
- (10) Monitor the mercury drained from **CO-002** in pounds, monthly.
- (11) Monitor the differential pressure across the **CB-003** in inches of water, once per day during operation.
- (12) Monitor the sulfur-impregnated carbon in **CB-003** for percentage of mercury by weight, quarterly until reaching 50% of the carbon loading capacity and then monthly until reaching 90% of the carbon loading capacity.

c. Recordkeeping

The required monitoring established in Section C.4.c above, shall be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:

- (1) The calendar date of any required monitoring.
- (2) The total batch weight of **precious metal concentrate** for **TU4.005** in tons, for the corresponding date.
- (3) The total throughput of **precious metal concentrate** for **TU4.005** in tons for a calendar year.
- (4) The daily hours of operation per batch for **TU4.005** for the corresponding date.
- (5) The negative vacuum gauge pressure for **TU4.005** in mmHg, continuously during operation, based on a one hour period, for the corresponding date.



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- (6) The outlet gas temperature from **CO-002** in degrees Fahrenheit, continuously during operation, based on a one hour period for the corresponding date.
- (7) The water temperature in **CO-002** in degrees Fahrenheit, continuously during operation, based on a one hour period for the corresponding date.
- (8) The water flow rate through **CO-002** in gallons per minute, continuously during operation, based on a one hour period for the corresponding date.
- (9) The mercury drained from **CO-002** in pounds, monthly, for the corresponding date.
- (10) The differential pressure across **CB-003** in inches of water, once per day for the corresponding date.
- (11) The percentage of mercury by weight of the sulfur-impregnated carbon in **CB-003** from the mercury analysis, for the corresponding date.
- (12) The depth of the sample probe from the carbon sampling on **CB-003** for the corresponding date.
- (13) The date and weight of each sulfur-impregnated carbon replacement for **CB-003**, for the corresponding date.
- (14) The date and corrective action taken for an interlock shut-down, for the corresponding date.

e. Reporting

- (1) The date and description of any interlock event and corresponding corrective action.
- (2) **The Permittee** shall promptly report to the Director any emissions and or throughput exceedances from **System 03**. The report to the Director shall include probable cause and any action taken to correct the exceedance. For this Operating Permit to Construct, prompt is defined as submittal of a report within 15 days of said deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under condition I.L of this operating permit.
- (3) **The Permittee** will report annually to the Director the amount of mercury collected from the condenser (**CO-002**), in pounds for the reporting year.



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Section II. Specific Operating Conditions (continued)

D. Emission Unit #TU4.006 Location North 4,467,525 m, East 409,076 m, UTM (Zone 11, NAD 83)

System 04 - Furnace		
TU	4.006	Furnace

1. Air Pollution Control Equipment

a. Emissions from TU4.006 shall be ducted to a control system with 100% capture consisting of:

- (1) Baghouse (BH-001)
- (2) Carbon Bed (CB-004) (manufactured by CGS)

b. Descriptive Stack Parameters

Height: 25.0 feet

Diameter: 1.25 feet

Temperature: approximately 100.0° F

Exhaust gases from TU4.006 shall have a maximum volume flow rate of approximately 4,000.0 actual cubic feet per minute (ACFM).

2. Construction Requirements (NAC 445B.250)

The Permittee shall provide the Director written notification of:

- a. The date that construction of TU4.006 is commenced postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form.
- b. The anticipated date of initial startup of TU4.006, postmarked not more than 60 days nor less than 30 days prior to such date.
- c. The actual date of initial startup of TU4.006, postmarked within 15 days after such date.

3. Operating Requirements (NAC 445B.3685.3)

a. Limitations of Operation

- (1) The maximum allowable throughput rate of **retorted precious metal concentrate** for TU4.006, shall not exceed **0.50 ton per batch** and **547.5 tons of precious metal concentrate** per year. **Retorted precious metal concentrate** shall consist only of the following:
 - (a) Material loaded with precious metals such as gold and silver, along with various other metals that is produced by electrowinning, the Merrill-Crowe process, flotation and gravity separation processes, and other gold concentration or precipitation processes.
 - (b) Material collected from the wash-down of any equipment or surfaces contacted with precious metals that have been concentrated through the various concentration methods employed by precious metal mines.
 - (c) Material containing precious metals collected from the baghouse.
- (2) The mercury emission limit for TU4.006 shall not exceed **1.0 x 10⁻⁵ grains per dry standard cubic foot (gr/dscf)**.
- (3) Hours
TU4.006 may operate a total of **24 hours** per day.



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MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

D. Emission Unit #TU4.006 Location North 4,467,525 m, East 409,076 m, UTM (Zone 11, NAD 83)

3. Operating Requirements (continued)

b. Work Practices

(1) Baghouse (BH-001)

- (a) The bags in **BH-001** shall be inspected quarterly.
- (b) The differential pressure across **BH-001** shall be maintained between **1.00** and **15.0** inches of water column.

(2) Carbon Bed (CB-004)

- (a) The maximum exhaust gas temperature at the inlet to **CB-004** shall not exceed **200.0°F**.
- (b) **CB-004** shall contain no less than **11,000.0** pounds of sulfur-impregnated carbon.
- (c) The differential pressure across **CB-004** shall not exceed **16.0** inches of water.
- (d) Sample and replace the carbon in **CB-004** according to the following schedule:
Sample the carbon at the inlet and outlet of the carbon bed **CB-004** and record the depth of the sample probe within **90** days after replacement of the carbon. The sampled carbon shall be analyzed for mercury and the average percentage of mercury, by weight, shall be calculated. The loading capacity of the sulfur-impregnated carbon is **20%** by weight. A sample of carbon shall be analyzed quarterly until **50%** of the carbon loading capacity is reached. Upon reaching **50%** of the carbon loading capacity, the sampling of carbon shall occur monthly until **90%** of the carbon loading capacity is reached. The carbon in the carbon bed **CB-004** shall be replaced no later than **30** days after reaching **90%** of the carbon loading capacity. The required mercury analysis shall be performed utilizing one of the following methods:
 - (i) EPA Method 6020 – Inductively Coupled Plasma-Mass Spectrometry;
 - (ii) EPA Method 7471B – Mercury in Solid of Semi-solid Waste (Manual Cold Vapor Technique); or
 - (iii) An alternative test method as approved by the Director.
- (e) On an annual basis, perform a total loading analysis on the mercury removal media in **CB-004**.
- (f) Any sulfur-impregnated carbon replaced in **CB-004** shall be replaced with only the original manufacturer's design specification sulfur-impregnated carbon or with equivalent performing mercury removal media.
- (g) The original manufacturer's design specifications for the sulfur-impregnated carbon used in **CB-004** shall be kept on site.



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Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

D. Emission Unit #TU4.006 Location North 4,467,525 m, East 409,076 m, UTM (Zone 11, NAD 83)

4. Compliance Testing, Monitoring, Recordkeeping and Reporting (NAC 445B.3685.3)

a. Compliance Testing

- (1) Within 60 days after achieving the maximum rate of production at which **TU4.006** will be operated, but not later than 180 days of initial startup of **TU4.006**, and annually thereafter, *the Permittee* shall conduct and record a performance test for mercury on the exhaust stack of **TU4.006** consisting of three valid runs utilizing US EPA Method 29 of 40 CFR Part 60 Appendix A. Each of the three test runs must collect a sample volume of **0.85** dry standard cubic meters (**30 dscf**).
- (2) Simultaneously, during the Method 29 compliance test, conduct and record a material assay from **System 04**. One representative sample shall be taken for each test run. Total mercury content shall be determined using EPA Method 7471B (cold vapor atomic adsorption analysis) (or alternative test method approved by the Director).
- (3) *The Permittee* shall comply with the requirements in Section I.N of this operating permit for all compliance testing.

b. Monitoring

The Permittee shall:

- (1) Install, operate, calibrate, and maintain instrumentation to measure and record the following for **TU4.006**.
 - (a) The differential pressure of **BH-001** in inches of water.
 - (b) The exhaust gas temperature prior to **CB-004** in degrees Fahrenheit.
 - (c) The differential pressure across **CB-004** in inches of water.
- (2) Monitor the total batch weight of **retorted precious metal concentrate** for **TU4.006** in tons, per batch.
- (3) Monitor the total weight of retorted precious metal concentrate for **TU4.006** in tons per year.
- (4) Monitor the daily hours of operation per batch for **TU4.006**.
- (5) Monitor the differential pressure across **BH-001** in inches of water once per batch during operation.
- (6) Monitor the exhaust gas temperature prior to **CB-004** in degrees Fahrenheit once per batch during operation.
- (7) Monitor the differential pressure across **CB-004** in inches of water once per batch during operation.
- (8) Monitor the sulfur-impregnated carbon in **CB-004** for percentage of mercury by weight, quarterly until reaching 50 percent of the carbon loading capacity and then monthly until reaching 90 percent of the carbon loading capacity.



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Issued to: Solidus Resources, LLS

Section II. Specific Operating Conditions (continued)

D. Emission Unit #TU4.006 Location North 4,467,525 m, East 409,076 m, UTM (Zone 11, NAD 83)

d. Recordkeeping

The required monitoring established in Section D.4.c above, shall be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:

- (1) The calendar date of any required monitoring.
- (2) The total batch weight of **retorted precious metal concentrate** for **TU4.006**, in tons, for the corresponding date.
- (3) The total annual weight of **retorted precious metal concentrate** for **TU4.006**, in tons, for the corresponding year.
- (4) The daily hours of operation per batch for **TU4.006**, during each day of operation.
- (5) The results of the quarterly bag inspection in **BH-001**.
- (6) The differential pressure across **BH-001**, in inches of water once per batch, during operation, for the corresponding date.
- (7) The outlet gas temperature prior to **CB-004**, in degrees Fahrenheit once per batch, during operation, for the corresponding date.
- (8) The differential pressure across **CB-004**, in inches of water once per batch during operation, for the corresponding date.
- (9) The percentage of mercury by weight of the sulfur-impregnated carbon in **CB-004** from the mercury analysis, for the corresponding date.
- (10) The depth of the sample location in **CB-004**, from the mercury analysis, for the corresponding date.
- (11) The date and weight of each sulfur-impregnated carbon replacement for **CB-004**, for the corresponding date.

e. Reporting

The Permittee shall promptly report to the Director any emissions and or throughput exceedances from **System 04**. The report to the Director shall include probable cause and any action taken to correct the exceedance. For this Operating Permit to Construct, prompt is defined as submittal of a report within 15 days of said deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under condition I.L of this operating permit.

******* End of Specific Operating Conditions *******



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MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Solidus Resources, LLS

Section III. Amendments

Aircase 12114 – RC – Dec 2025: New MOPTC application.

DRAFT

This permit:

1. Is non-transferable (NAC 445B.287.3).
2. Shall be posted conspicuously at or near the stationary source (NAC 445B.318.5).
3. Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action (NRS 445B.340).

Signature: _____

Issued by: Tanya Soleta, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone: (775) 687-9540 **Date:** _____