EXPLORATION LTD.
AURCHEM

Mill and Operation Plan

November 2012

Contents

MILL DEVELOPMENT AND OPERATIONS PLAN

1.0 Introduction

Aurchem Exploration Ltd., is pleased to submit this Mill Development and Operations Plan,

Aurchem Exploration Ltd will operate a small, 50t/day, flotation mill and grinding circuit at its Vic property near Mount Nansen, Carmacks, Yukon. The figure attached, entitled Mill Process diagram, shows the mill circuit. Aurchem will be processing ore from open veins on site, using a back-hoe to break up rock at surface, Blasting is not required. Ore will be crushed on site and processed in a mobile mill facility. Details of the mill process and crushing circuit are included below.

2.0 History

The Mount Nansen Property is in the southern portion of the Tintina Gold belt which extends from Donlin Creek in Alaska, through the Fairbanks District, the Pogo Deposit, and across the Yukon border where it incorporate such major producing deposits as the Brewery Creek Mine and Dublin Gulch.

Aurchem has a 100% interest in 389 quartz mineral claims and 7 mineral leases covering approximately 7,543 hectares (18,640 acres) in the Yukon Territories of Canada, 65km west of the town of Carmacks.

Previous exploration of the Vic area was completed by Skyline Exploration in the mid-70's, Kerr Addison (1985-86), and Chesbar Resources (1987-88). Skyline conducted surface sampling, Kerr Addison completed trenching, diamond drilling, float and soi geochem, and a ground magnetic survey. Chesbar followed up on the Kerr Addison drill results with further drilling. Although the results were spotty, the drilling by Kerr Addison / Chesbar in 1986-88 had produced a few good gold intersections that indicated the presence of a highgrade mineralized system.

Aurchem conducted extensive trenching, reverse circulation and diamond drilling on the Vic claims between 2004 and 2006, and specifically the Maverick Zone during the 2004 & 2005 field seasons (29 ddh/2,755m) producing a preliminary ore resource estimate of 23,720 tonnes at 12.63 g/t Au. The high grade nature of the mineralization is evident in such drill intersections as 2.44m @ 48 g/t Au. Trenching in 2006 produced a sample of mineralized float grading 45.4 g/t Au, located on strike, 180m east of the drilled resource.

2.1 Geology and Seismicity

The Mount Nansen property is located in the Dawson range of the Yukon Tanana Terrane underlain by early Mississippian metamorphic rocks and intruded by several plutonic suites. Genetically related sub-volcanic feldspar porphyry dykes and plugs intrude all rock types. The late cretaceous Carmacks volcanic suite is genetically related to the Prospector Mountain Plutonic suite. Mineralized structures on the Mount Nansen property consist of fault-shear-hosted veins and associated clay rich and bleached alteration zones in felsic hypabyassal rocks. The vein zones range from narrow, simple quartz veins to complex, anastamosing and braided systems or breccia pipe-like structures that crosscut all rock types. The veins and associated felsic dykes or faults trend in a variety of directions and are steeply dipping. The structures are interpreted as a dilational fracture systems peripheral to the middle cretaceous intrusive bodies. There are

distinctive mineralogical assemblages associated with the various vein orientations. The most prominent and longest recognized veins are composed of dark grey, very fine grained quartz-sphalerite-galenapyrite- stibnite veins. The quartz-sulfide veins generally trend northwesterly and are closely associated with fine grained buff weathering feldspar porphyry dykes. The veins yield highgrade gold and proportionately higher silver grades. Gold-rich light grey quartz veins trending east-northeasterly contain only incidental fine grained disseminated pyrite. Silver and base metal values are low. Quartz-pyrite rich breccia zones form irregular pipe-like bodies. Central to the Mount Nansen mineral camp is a central porphyry system referred to as the Mount Nansen Porphyry complex. The complex is exposed within an uplifted block or an erosional remnant that resulted from post depositional faulting. The faulting has produced an apparent northwest trend for the mineralization referred to as the Mount Nansen Trend. A large area of copper-molybdenum porphyry style mineralization occurs with the Mount Nansen Porphyry complex.

2.3 Hydrology and Groundwater

There are no groundwater wells on site or near the property. In July 2012, flow measurements were calculated for both Iron Creek and Klaza. Results are included below:

A. Water Quality Sampling and Flow Measurements

On July 1, 2012, Jillian Chown, Project Manager of Aurchem Explorations ltd., conducted water quality sampling and flow measurement on site at the Aurchem Vic property. Below is a summary of the sampling event:

1. **Sampling Site: Iron Creek up 08 0386414 6893774**

Iron Creek Up is downstream of the project. It is located at the creek crossing approximately 2 km downstream of the site.

Temp- 3.7 C
TDS- 9 ppm
pH- 7.78
Conductivity – 8 uS
Flow rate- 0.02 m3/s or 20L/s

A culvert should be installed just down from sampling site to provide better access to site, and prevent vehicles from driving through creek. A culvert would also allow for more erosion protection on the road.

Water Quality samples were collected and were analyzed for Total Metals, Dissolved Metals, WAD Cyanide, Total Suspended Solids, Total Organic Carbon, and General Chemistry and Nutrients . Flow measurements were taken as well. Water quality results are appended.

Sampling site Iron Creek Up

Proposed Culvert Insert

2. Iron Creek (a)- this sampling site is located on Iron Creek approximately 300 m downstream of the Overburden Dump. 08 0387332 6893205

Water quality samples were collected and analyzed for Total Metals, Dissolved Metals, WAD Cyanide, Total Suspended Solids, Total Organic Carbon, and General Chemistry and Nutrients . Flow measurements were not taken at this site. Water quality results are appended.

Temp- 4.3 C
TDS- 13 ppm
pH- 7.3
Conductivity – 27 uS

3. **Iron Creek (b)**- 08 0383927 6892983

This sampling station is approximately 2 km downstream of Iron Creek Up. Wetted banks for this station were at 1.4 m and .14m, making the channel approximately 1.5 metres wide. Creek is very shallow and was difficult to get a cross sectional area of the creek due to the amount of rocks and boulders.

Temp- 9.0 C
TDS- 3 ppm
pH- 7.34
Conductivity – 7 uS
Flow- .01 m3/s or 10L/s

Water Quality samples were collected and analyzed for Total Metals, Dissolved Metals, WAD Cyanide, Total Suspended Solids, Total Organic Carbon, and General Chemistry and Nutrients . Flow measurements were taken as well. Water quality results are appended.

4. **Klaza- 08 0384095 6890725**

Temp- 5.4 C
TDS- 20 ppm
pH- 7.69
Conductivity – 34 uS
Flow- .26m3/s or 260 l/s

Klaza is located near previous camp site area. Klaza creek crossing should have a culvert installed as well.

Water Quality samples were collected and analyzed for Total Metals, Dissolved Metals, WAD Cyanide, Total Suspended Solids, Total Organic Carbon, and General Chemistry and Nutrients . Flow measurements were taken as well. Water quality results are appended.

2.4 Water Quality

In July 2012, water quality samples were collected and analyzed for Total Metals, Dissolved Metals, WAD Cyanide, Total Suspended Solids, Total Organic Carbon, and General Chemistry and Nutrients.

There are no groundwater wells on site, therefore there is no groundwater quality data.

To date, there has been no mine production work on site, and water quality samples collected have been for baseline purposes. Aurchem will continue collecting baseline water quality samples, with the next sampling event in May 2013. Currently, there is not enough baseline water quality data to identify trends or make any significant comparisons.

3.0 General Environmental Conditions

The project is located above tree line (above 6,000 feet) in the Mount Nansen area, near Carmacks, Yukon. The area is comprised primarily of exposed rock and willows and small low lying bush. There are two water bodies located close the project area, they are Iron creek and the Klaza Creek. These creeks are small, Iron Ceek is less than a meter in some sections and spans to 1.5 meters wide in its widest section. Klaza Creek is roughly 2-2.5 meters wide. Moose and grizzly bears have been spotted at the project location, but sporadically and in small numbers. The site is in an area that has been historically mined and for many years. There are placer miners and mining exploration camps near our mine site.

4.0 Site Preparation

The portable mill Aurchem plans to operate requires no site clearing. The mill is housed on a platform that can be wheeled in by truck. Because the mill is portable it will not require any foundation installation or clearing. Any clearing to be done will be to simply level the area where the mill platform will be located.

5.0 Operations and Reclamation Plan

5.1 Operations Plan

Aurchem plans to mill approximately 50t/d ore and to take a 10,000 tonne bulk sample over a five year period. Estimated volumes of ore that will be milled each year are 5000t.

Over the life of the project 20,000 tonnes of solid waste rock will be deposited as a slurry of approximately 80% solids and will at the end of the project be replaced into the excavations for reclamation. All tailings will be tested for ML prior to deposition into the excavations. All concentrate will be shipped off site. Aurchem will be using 3-5 above ground swimming pools to

store tailings from its milling process. Each pool has a capacity of approximately 8200 US gal (approx. 32,000L). Tailings will be deposited into these pools. There is enough capacity in these pools to contain tailings for one season of milling. Once the operating season ends, tailings will be tested chemically for disposal back into the open trenches on site, should results indicate they are benign. Tailings will only be disposed of at the end of the operating season. If they do not meet discharge limits, they will be reprocessed. Should water or tailings from our tailings ponds not meet discharge standards (after it has settled), tailings water will be sent back through the floatation circuit in an attempt to float any residual heavy metals and solids out of the water. The concentrate will then be collected, sampled and sent to an outside lab for analysis to ensure it meets CSR standards. It will either be disposed of in the trenches on site or, if it does not meet CSR standards, will be hauled off site to a certified contaminated waste disposal facility.

Figure 1 depicts the portable mill that can be trucked to site. Figure 2, below, provides a schematic of the Mill and Flotation process, plus an updated Water Balance. This figure is also appended to this report for further reference.

Figure 1. Portable Mill

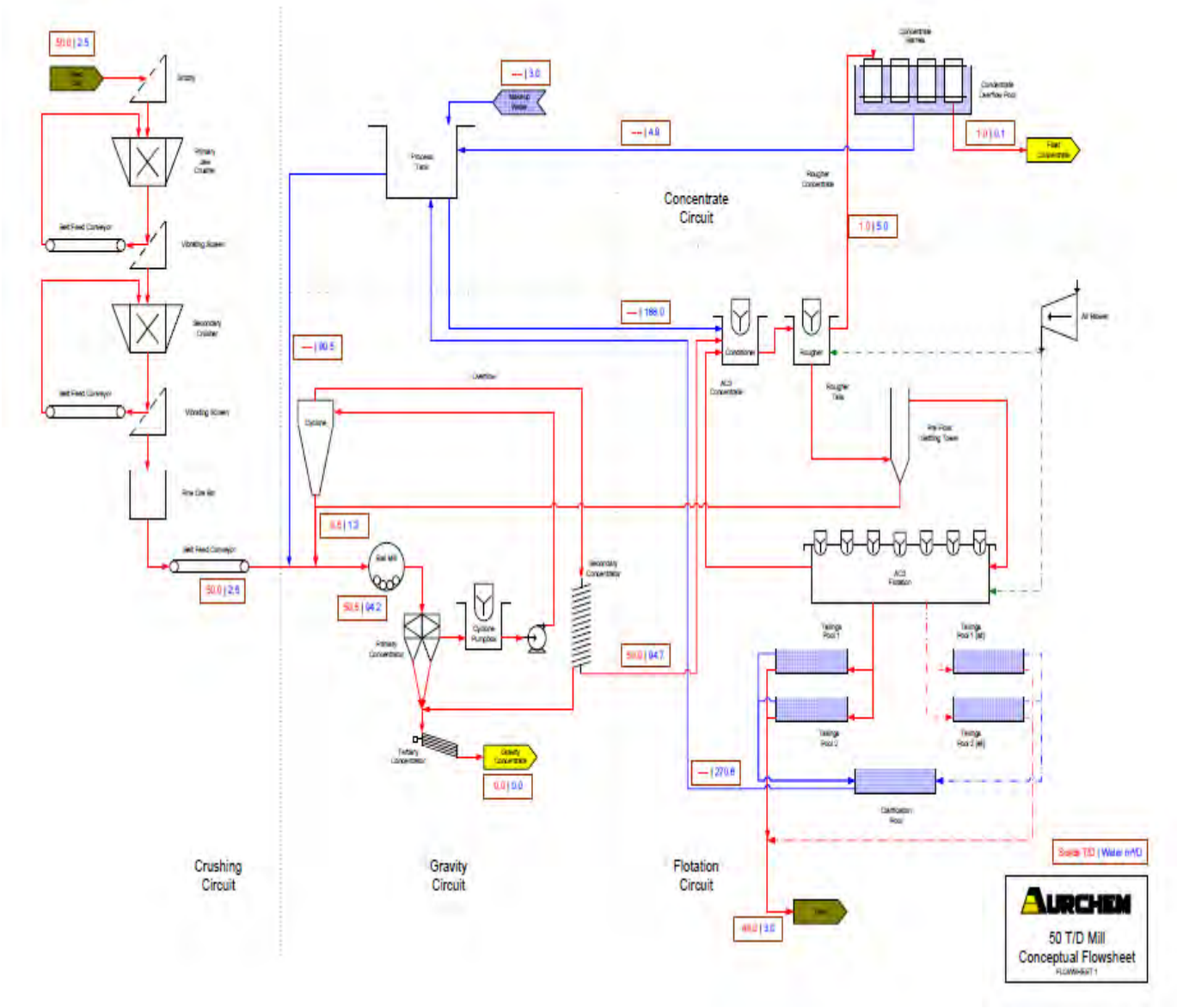


Figure 2. Conceptual Mill and Flotation process

As per the mill process diagram (above, Figure 2), tailings are released into a series of lined pools (above ground swimming pools). Water is decanted from the pools and sent to the clarifier pool, where it is re-used. There are many areas within the mill and floatation process whereby water is reclaimed. This system does not lose water, and recycles 100 %. There is no need for addition of water, but we have included it in our Water Use Licence application as a contingency. We do not anticipate large volumes of tailings, as the floatation circuit is capable of operating at 97-98 % recovery. Because this is a "pilot" project, the mill and floatation circuit needs to be operational before data such as effluent characteristics can be attained.

5.1.1 Process Overview

The pilot mill project is based around a gravitational flotation model that uses no leaching. The flow sheet (above, Figure 2) has three distinct circuits; crushing, gravity and flotation. The mill will be completely portable with no permanent structures.

5.1.2 Water Supply

The mill will require an initial seasonal charge of water of approximately 500m^3 to operate the 3- 5 settling ponds and the mill itself. Water will be pumped from open trenches on site that collect melt waters, as well Aurchem has identified Iron Creek as a back-up water source if there is insufficient water from trenches for start-up.

5.1.3 Crushing Circuit

The ore will be feed through a primary and secondary jaw crushing circuit with recycle (closed circuit) and will exit at roughly 10mm.

5.1.4 Gravity Circuit

The gravity circuit includes a ball mill and 3 gravity concentrators (spiral, table and Knelson). The final gravity concentrate will contain nominal water and will be shipped off site for further processing. The ore will be exiting the ball mill at roughly 60 micron.

5.1.5 Flotation Circuit

The flotation circuit consists of 4 high efficiency proprietary flotation cells that will use a minimal amount of reagents and energy to achieve 95% gold recovery. The concentrate will be captured (settled) into barrels and will be shipped off site at approximately 60% solids taking with it about 2m3/d water. All of the remaining process slurry will be sent to tailings ponds for settling, clarification and re-use. The settling circuit is twinned and will be alternated after approximately 50% storage capacity is reached. The unused tailings stream will settle for 5 days then stored in a tailings ponds. The water from this circuit will be re-cycled.

5.1.6 Tailings

The tailings of the project will be removed from the settling ponds at approximately 80% solids and will be sent back to open trenches on site or removed from site should it not meet environmental quality criteria. None of the tests on the ore nor host rock have indicated any potential for ARD. Tails can be easily removed by shovel and placed into drums for disposal into open trenches. Final cleaning of the tailings ponds can be done by vacuums.

5.1.7 Reagents

The maximum projected rate of usage of the 3 reagents is as follows:

AP208 (Aerofloat 208) – 200g/t of solids (10mg/L)

PAX (Aero 350 Xanthate) – 200g/t of solids (10mg/L)

MIBC – 40 g/t (2mg/L)

By the nature of the flotation process almost all of these flotation reagents (95%+) leave the process with the concentrate. The percent of the chemicals that remain are 100% soluble and will be recycled and not settle out with the tails except for trace amounts. In a worst case scenario, with the initial concentration of approx 40 ppm of water (based on a percent solids of 20% - although probable operating conditions will be 5% or a concentration of 10 mg/L) even if as much as 2% remains in the tails this leaves a concentration of <1 ppm. Aurchem has proposed to the Yukon Water Board that weekly tests be conducted on the tails and water in the tailings ponds in order to ensure that the tails and water are suitable for discharge back into the open trenches on site.

5.1.8 Excavation

Excavation will be accomplished by mechanical means, either a front-end loader or excavator. The excavator or loader will load a truck which will bring ore to the crusher. The distance between ore body and mill is minimal, as the mill is portable and will be located near the mining area. Haul distances are short, the project expects to use off-road haul trucks, probably of approximately 35 ton capacity, which will be loaded at the excavation site and will dump into a stockpile at the processing plant.

5.1.9 Reagent Handling and Preparation:

The chemicals for the mill will be stored in double lined containers and there will be less than 100kg on site. All reagents for the milling process will be stored in a locked, ventilated container on site, and next to the mill. This container is steel and is stand-alone. Mill operations will require that personnel wear PPE's while handling reagents, which includes gloves and eye wear. Should a reagent spill occur, it will be cleaned up immediately. Soils will be placed in an approved container. Should a spill occur, arrangements will be made to dispose of the material at an appropriate facility.

5.1.10 Concentrate Production

Below is a table that summarizes the trials that were performed on our pilot mill in 2006. Included in the table are estimated concentrate productions.

PILOT PLANT EQUIPMENT SUMMARY

Equipment	Description
Primary Mill	20" x 30" Mild Steel Rod Mill, 3HP installed
Knelson Concentrator	3" 100 g cone operated at 1.4 psi
Rougher Flotation	6 - 11 litre cells, 30 minute retention time
Cleaner Flotation	Laboratory D12 Denver with 8.8 litre cell.

PILOT PLANT CONCENTRATE PRODUCTION SUMMARY

Product	Weight		Assay - g/t			Distribution - percent		
	kg	%	Ag	Au	Bi	Ag	Au	Bi
Mill Discharge	119.0	100.0	7	32	195	100	100	100
Knelson Concentrate	**0.4**	**0.3**	**395**	**4648**	**2656**	**19.2**	**46.4**	**4.3**
Flotation Feed	118.6	99.7	5	17	188	80.8	53.6	95.7
Rougher Concentrate	19.0	15.9	28	82	759	67.9	41.2	61.9
Final Concentrate	**4.3**	**3.6**	**82**	**273**	**2539**	**45.1**	**30.9**	**46.4**
Cleaner Tail	14.7	12.4	12	27	244	22.8	10.4	15.4
Rougher Tailings	99.7	83.7	1	5	79	12.9	12.4	33.8

Note a) Concentrate masses are estimated dry weights.
b) Additional assay data is located in Appendix III.

5.1.11 Concentrate Storage and Haulage

Concentrate will be shipped off site to a potential buyer in a plastic drums supplied by purchaser. We will hire a trucking company to transport the concentrate.

5.1.12 Power Plant:

Power for the mill operations will be provided by diesel generators. One 100KW diesel generator will be used on site.

5.1.13 Fuel Storage

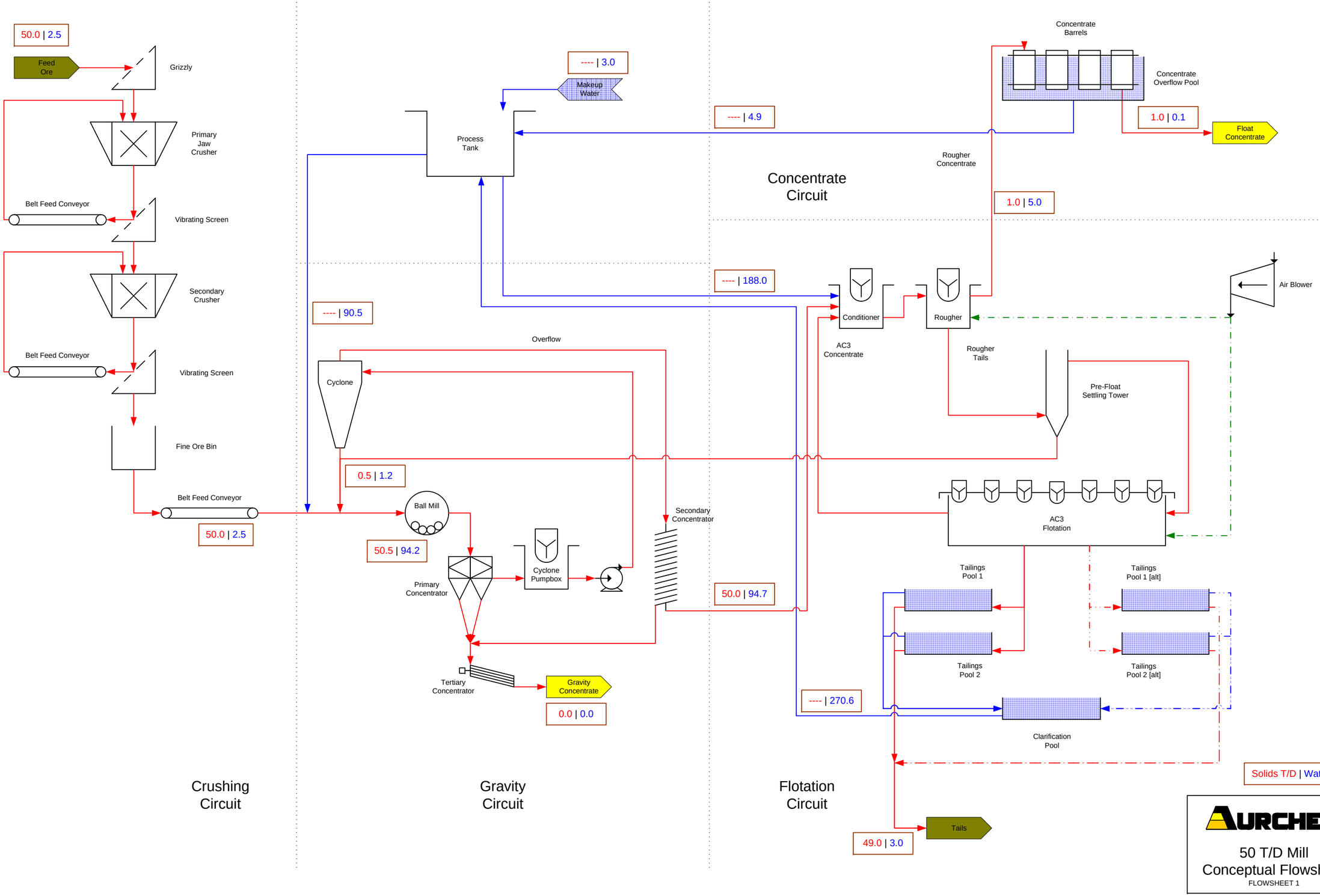
Diesel Storage

One 1000gal, double walled enviro tank will be used on site to store diesel. Location to be determined.

Gasoline Storage

One 1000gal, double walled enviro tank will be used on site to store gasoline. Location to be determined.

Appendix A Additional Figures


50.0 | 2.5
Feed Ore
Grizzly
Primary Jaw Crusher
Belt Feed Conveyor
Vibrating Screen
Secondary Crusher
Belt Feed Conveyor
Vibrating Screen
Fine Ore Bin
Belt Feed Conveyor
50.0 | 2.5
---- | 3.0
Makeup Water
Process Tank
---- | 90.5
Overflow
Cyclone
0.5 | 1.2
Ball Mill
50.5 | 94.2
Primary Concentrator
Cyclone Pumpbox
Secondary Concentrator
50.0 | 94.7
Tertiary Concentrator
Gravity Concentrate
0.0 | 0.0
---- | 4.9
Concentrate Barrels
Concentrate Overflow Pool
1.0 | 0.1
Float Concentrate
Rougher Concentrate
1.0 | 5.0
Concentrate Circuit
---- | 188.0
Conditioner
Rougher
Air Blower
AC3 Concentrate
Rougher Tails
Pre-Float Settling Tower
AC3 Flotation
Tailings Pool 1
Tailings Pool 1 [alt]
Tailings Pool 2
Tailings Pool 2 [alt]
---- | 270.6
Clarification Pool
Tails
49.0 | 3.0
Crushing Circuit
Gravity Circuit
Flotation Circuit
Solids T/D | Water m³/D
AURCHEM
50 T/D Mill
Conceptual Flowsheet
FLOWSHEET 1