

**GEOLOGIC REVIEW AND RESERVE EVALUATION
EUREKA MINE CLAIM
39599 BOURNE ROAD
SUMPTER, OREGON**

Prepared
for

Eureka Mining, LLC.

8 Boxwood Drive
Monroe, NJ 08831

Gerald T. Ladd

Professional Geologic Consulting Services

1078 W. Spur Ct.
Gilbert, AZ 85233
425.445.2076

November 1, 2010
Revision D

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INTRODUCTION AND PURPOSE

The Eureka Mine Claim is a combination of two placer mining claims, the Cracker Creek Claim and the eastern portion of the Sumpter Deep Gravel Placer Mining Claim currently being operated by Eureka Mining Company. The claim is about two miles northeast of Sumpter, Oregon specifically described as the NW/4 NE/4 NW/4 of Section 29, Township 9 South, Range 37 East, Baker County, Oregon.

The total operating area is 1298 feet long and 957 feet across encompassing approximately 20 acres. Cracker Creek flows north to south through the eastern portion of the site. The original claims of Cracker Creek and Sumpter Deep Gravel Placer Mine were separated by an east-west property line that now bisects the Eureka Claim into a north section and south section. This old boundary is the separation between the two pits that are currently being mined, the Looney Pit on the northern end of the claim and the Gold Camp Pit on the southern end of the claim. The pits will be mined to their full extent eventually meeting up at the center of the claim.

Figure 1 is a portion of Bourne 7.5 minute USGS quadrangle topographic map that shows the Eureka Placer Claim location. Figure 2 illustrates the claim boundaries and existing features, the two existing mining pits and reconnaissance test pits.

The purpose of this report is to review the geology of the property by conducting site reconnaissance, pit explorations and geologic research. The conclusions contained in this report are based on our understanding of the current use of the project site, as derived from written information, maps and verbal information supplied to us.

SURFACE CONDITIONS

Regionally the site is located within the Cracker Creek Valley approximately 2 miles north of Sumpter, Oregon (Figure 1). The topography of the site slopes gently downward to the south encompassing the river valley floor and both east and west valley walls. The elevation change across the site east to west is about 120 feet from an elevation high of 4600 feet to a low of 4480 feet on the valley floor. The valley floor portion of the site is void of vegetation due to early 20th Century gold dredge mining of Cracker Creek as well as the current mining activities. Up slope from Cracker Creek, Ponderosa Pines and Tamarack cover the hillsides with sparse understory vegetation consisting of grasses and shrubs. Tributaries into Cracker Creek were not observed across the claim.

Bourne Road runs directly through the site bisecting the Eureka Claim (Figure 2). A haul road into the mine plant spurs off of Bourne Road for access to two buildings that are at the mine plant entrance; a job trailer and a tool storage conex. The production plant, tailings piles and two settling ponds exist near Cracker Creek on the eastern portion of the claim.

CURRENT MINING ACTIVITY

In April 2010, Eureka Mining LLC. began mining the Eureka Placer Mine Claim. Two mine pits have been excavated into the western valley wall of the claim. The northern pit is called Looney Pit and the southern pit is called Gold Camp Pit (Figure 2). These pits have been excavated using general construction equipment including a D-7 bulldozer, 325 excavator, 960 loader, and a 735- 30 cubic yard dump truck.

The excavated host material is placed into the dump truck and hauled to the production plant less than 1/4 mile away. There is about a seven minute turnaround from pit to plant and back to pit. The host material is dumped at a staging area to be processed at the plant. Once 300 cubic yards of host material is collected, the excavator is assigned to send it through the production plant.

The mine production plant consists of a series of stages that the lead goes through to extract the free gold from the host material. The production plant is sequenced as follows:

- The mined host material is taken from the deck by the excavator and placed into a de-rocker which separates out 4 inch minus material that is sent across double-deck screen outfitted with a 1.5 inch screen over a 3/8 inch screen.
- Anything that passes over the 1.5 inch screen is sent to the tailings pile. Anything that is between 3/8 inch and the 1.5 inch screen is sent by a conveyer belt to a Stedmond crusher and then back over the screens. If not crushed to size the first time the host material is recycled a second time through the 3/8 inch minus screen. Once the host material is to the proper size, it drops into the bottom hopper.
- From the hopper the host material is pumped out via slurry pump to the vortex finder and dewatered. Once passed the vortex finder it gravity drops to a true "Y" that sends the host material to two 42-inch Pan-American jigs.
- From the jigs any waste rock goes out the end into a sand screw that de-waters and sends wastes back to the tailing piles. The heavies or "cons" then drop out of the jigs and are sent through a reverse helix separator which pulls out the gold and other heavy minerals, the wastes from the helix goes into a sluice box as a secondary separator to collect any un-recovered gold. The waste from the sluice goes to the sand screw.

Free gold has been found throughout the claim except for the top 3 feet of forest surface soil material (Forest Duff) which is stripped off as overburden and not processed. From a depth of 3 feet below surface to the bedrock, host material is mined and processed through the mine plant. The average depth to bedrock at the Looney Pit is approximately 50 feet and at Gold Camp Pit is approximately 60 feet. The mining continues into the bedrock for about 4 feet to gather any free product that has settled into the fractures and uneven contact.

Gerald T. Ladd, Professional Geologic Consulting Services, did not analyze samples or send samples away for separate analysis. Bulk test samples have been analyzed onsite by Eureka Mining, LLC to assess the amount of free gold at each mine pit at various depth intervals. Assays as well as 40 element and rare earth elements have been analyzed by a third party lab. The discussion and reporting of these results are beyond the scope of this report. However, free gold collected through out the claim averages 80% gold and 20% silver. Table 1 and 2 below have been prepared to show the Eureka Mining, LLC bulk test results for the Looney and Gold Camp Pits.

Table 1 shows the Looney Pit bulk-sample gold-recovery results. The top three feet (0 - 3 ft) is stripped off the site without processing and bedrock is encountered at approximately 50 feet below ground surface.

Depth from Surface (ft)	Amount of Material Tested (Cu. Yds)*	Total Au Yield (oz.)	Au Yield per Yard of Material (oz.)
3 - 10	100	0.532	0.0053
10 - 20	100	1.372	0.014
20-30	2500	38.535	0.016
30 - 50	1874	35.945	0.019
50 - 54	1	0.322	0.322
*1 cubic yard = 1980 - 2200 pounds, average 1 cu. yd = 1 ton			
Table 1: Looney Pit bulk sample results			

The cubic yard weighted-average gold-recovery for the Looney Pit amounts to 0.017 oz/cu yd.

Table 2 shows the Gold Camp Pit bulk sample gold recovery results. The top three feet (0 - 3 ft.) is stripped off the site without processing and bedrock is encountered at approximately 60 feet below ground surface.

Depth from Surface (ft)	Amount of Material Tested (Cu. Yds)*	Total Au Yield (g)	Au Yield per Yard of Material (oz.)
3-10	169	1.978	0.012
10-30	159	2.188	0.014
30-60	100	1.754	0.018
60 - 64	60	3.375	0.056
*1 cubic yard = 1980 - 2200 pounds, average 1 cu. yd = 1 ton			
Table 2: Gold Camp Pit bulk sample results			

The cubic yard weighted-average gold-recovery for the Gold Camp Pit amounts to 0.019 oz/cu yd. The combined weighted average for both Pits equals 0.017 oz/cu yd.

GEOLOGY REVIEW

The geologic units within the Eureka Placer Mine Claim boundary are based on published geologic maps (references 1, 2 and 3). The units from the most recent of the published maps (1982) (Figure 3) are Quaternary Alluvium (Qal) and Quaternary Terrace Gravels (Qtg) and the Elkhorn Ridge Argillite (TPerm). These units are described in detail in order of youngest to oldest.

Quaternary Alluvium (Qal) - Unconsolidated, poorly sorted fluvial deposits consisting of gravel, sand and silt in channels and flood plains of the present drainage system.

Quaternary Terrace Gravels (Qtg) - Unconsolidated to weakly consolidated, poorly sorted fluvial deposits of gravel, sand, and silt situated at higher levels than the flood plains of present streams. These deposits can include

glacial deposits and fluvial deposits that pre-date the present drainage system.

Elkhorn Ridge Argillite (TPerm) (Permian-Triassic) - Metamorphosed shale, sandstone and lavas, highly fractured and folded containing deposits of limestone, chert and quartz veins. Some areas of the deposit are black due to its high carbon content and other lighter grey areas are more siliceous.

The terrace gravels indicate that the Cracker Creek drainage system pre-dates the glaciation of the Pleistocene. These deposits show consolidation from the load of glaciers advancing and receding over time. Any evidence of glacial history, such as end moraines and lateral moraines, appear to have been destroyed by either the present Cracker Creek drainage system or mine dredging activities during the early 20th Century.

The age of the western valley wall deposits on the Eureka Mine Claim are unknown; however the geologic maps indicate pre-glacial and glacial deposits of the Quaternary. Along the valley floor post-glacial deposits of Holocene alluvium deposited by Cracker Creek occur on the eastern portion of the Eureka Claim.

FIELD RECONNAISSANCE

A site reconnaissance was conducted at the Eureka Mine Claim on October 10, 2010, that included Looney Pit, Gold Camp Pit and three test pit excavations between the Looney Pit and Gold Camp Pit (Figure 2).

The current mining activity at the Eureka Mine Claim has occurred in two locations of which Eureka Mining, LLC has named Looney Pit at the northwest end of the claim and Gold Camp Pit at the southwest end of the claim. We observed five distinct lithological changes throughout the deposit. In general these five layers can be described as follows. 1) The top layer is the 3-foot forest duff mantling. 2) Next is a 7-foot unconsolidated brown SAND. Below the unconsolidated brown SAND is 3) 20 feet of consolidated oxidized orange sandy GRAVEL over 4) 20 to 30 feet of grey sandy GRAVEL. The GRAVEL deposits contain mostly sub-

angular to sub-rounded gravels and an abundance of sub-rounded boulders up to 4 feet in diameter. The final layer observed in the mine pit excavations is 5) bedrock.

Bedrock is between 50 to 85 feet below ground surface at its deepest point and about 20 to 40 feet at its shallowest. The bedrock contact appears to be irregular across the site. Without further investigation an accurate depth to bedrock across the claim can not be determined. Each mine pit was excavated about 4 feet into the fractured bedrock until conventional excavation methods could not penetrate further into the rock. The grey GRAVEL layer thinned out to the east until it disappeared about 30 feet before reaching the valley wall where the oxidized orange sandy GRAVEL directly overlies the bedrock about 20-40 feet below ground surface.

The contact between the oxidized orange sandy GRAVEL and the grey sandy GRAVEL is very distinct. The contact is relatively straight in cross-section perpendicular to Cracker Creek Valley and contains about a 1-foot zone of angular to sub-angular gravels as well as a higher concentration (approximately 10-15%) of rip up clasts of localized bedrock and grey colored material. Trace amounts, less than 5%, localized bedrock rip-up clasts were seen within the grey GRAVEL and the oxidized orange GRAVEL deposits. This contact was only observed at the Looney and Gold Camp Mining Pits.

The test pits excavated between the Looney and Gold Camp Pits were in areas that have not been mined. They were scattered somewhat equally spaced across the claim north to south. The test pits were excavated with the 325 excavator to as far as the machine was capable of reaching or the material was too dense to penetrate deeper.

In the test pits the same layering present in the mined pits was observed. First, 3 feet of forest duff mantling, then 4 to 6 feet of unconsolidated brown SAND with gravel over oxidized orange sandy GRAVEL was measured. The excavations did not encounter the layers observed below the oxidized orange GRAVEL layer in the mine pits due to the lack of penetration of the highly consolidated nature of this gravel deposit.

Table 3 below summarizes the approximate thicknesses and depths of the layers observed while on site.

Pit # (In order from N-S)	Location (GPS Latitude/ Longitude)	Thickness of Forest Duff (feet)	Thickness of Brown SAND (feet)	Thickness of Oxidized Sandy GRAVEL (feet)	Thickness of Grey Sandy GRAVEL (feet)	Depth to Bedrock (feet)
Looney Mine Pit	44°45'34.1"N 118°12'25.7"W	3	7	20	20	50
Looney Test Pit 1	44°45'31.5"N 118°12'26.8"W	2	2	8	NDE	NDE
Gold Camp Test Pit 1	44°45'28.3"N 118°12'28.2"W	2	6	12	NDE	NDE
Gold Camp Test Pit 2	44°45'27.5"N 118°12'31.7"W	2	4	9	NDE	NDE
Gold Camp Mine Pit	44°45'25.5N 118°12'29.6"W	3	7	20	30	60
NDE - Not Deep Enough to encounter during exploration due to the excavating machine not able to dig deeper						
Table 3: Approximate Thicknesses and Depths of Fluvial Layers						

Detailed lithologic descriptions of the rock layers are enclosed in Appendix A. Relevant site photographs are included in Appendix B.

Groundwater seepage was not observed while visiting the site. We were informed that groundwater seepage had not been encountered throughout the duration of mining the claim. A water well drilled and installed about 100 to 150 feet west of the Eureka Mine Claim property for a private residence encountered groundwater at about 400 feet below ground surface producing about 10 gallons per minute.

RESERVE EVALUATION

In review of the geology and available quantitative data, the following is a discussion of the estimated gold reserve for the Eureka Mine Claim.

Author's Note - Mineral Resource and Reserve: Minerals are naturally occurring chemical elements of compounds which are the basic building blocks of rocks and soil. All land is mineral property by definition. An intuitive definition of mineral property is a parcel of land which is more valuable for what it contains than for what can be constructed upon it. The minerals occurring on a mineral property may be classified as a mineral resource or mineral reserve.

For the purpose of mineral property evaluation, a mineral **resource** is properly considered to be the physical quantity of mineral material of a certain level of quality contained in the ground without consideration of its physical extractability, cost of production or quantity and price for which the mineral can be sold. A mineral **reserve** is the proper term to use when describing that portion of a resource that is also capable of being legally and physically extracted, processed, recovered, transported and sold at a profit. It should be noted that both resources and reserves are estimates based on geologic, engineering and/or economic assumptions and are therefore, overtime, subject to modification.

A mineral resource is further qualified by the terms, measured, indicated and inferred. The qualifiers are used only to reflect the level of geologic confidence in the resource estimate. A mineral reserve can be further qualified by the terms, proven, probable and possible which reflect on the level of engineering, economic and legal confidence in addition to the geologic confidence.

For the purpose of this report the mineral is gold and is classified as a proven gold reserve.

The Eureka Mine Claim is approximately 20 acres. An estimated 16 acres appear to remain as mineable placer. Table 4 summarizes the gold reserve calculations.

Estimated Mineable Material - Upper 65 feet			
Acres	16		
sq ft/acre	42560	sq ft	680,960
Depth ft	65	cu ft	44,262,400
cu ft/cu yd	27	cu yd	1,639,348

Gold oz. per cu yd	0.017
Gold Total oz.	27,869
Table 4: Estimated Gold Reserve Upper 65 feet	

Using the calculated cubic yard weighted-average gold-recovery of 0.017 oz/cu yd and a 65 foot placer thickness of upper material, the gold reserve is estimated to be 27,869 oz for the 20-acre claim.

Additional Testing of Deeper Placer Deposit

The Looney and Gold Camp Mine Pits were excavated another 20 feet below the depth we observed on site during reporting. This basal 20 feet only covers an estimated 8 acres of the property. Table 5 illustrates the estimated gold reserve in the basal 20 foot placer thickness. The bulk sample testing performed on this deeper material has a total Au yield of 0.25 oz/yd from a 26 cu. yd bulk sample. However due to nuggets being present the gold retained on any sieve above the No.14 (1.41 mm) was thrown out of the weight average. This brought the final total Au down to 0.10 oz/yd. Note, The upper 65 feet and basal 20 feet placer reserves are separated because if the basal 20 feet of material was averaged with the rest of the mine property the placer reserve estimations would be misrepresented.

Estimated Mineable Material - Basal 20 feet			
Acres	8		
sq ft/acre	42560	sq ft	340,480
Depth ft	20	cu ft	6,809,600
cu ft/cu yd	27	cu yd	252,207

Gold oz. per cu yd	0.10
Gold Total oz.	25,221
Table 5: Estimated Gold Reserve Basal 20 feet	

Using the calculated cubic yard weighted-average gold-recovery of 0.10 oz/cu yd for the basal placer and an average 20 foot placer thickness, the gold reserve is estimated to be 25,221 oz for the 20-acre claim.

CONCLUSIONS

We offer the following general conclusions concerning the Eureka Mine Claim:

Geology: The stratigraphy observed during our field reconnaissance revealed somewhat variable near-surface conditions but confirmed the mapped stratigraphy within Eureka Mine Claim. Our interpretation of the stratigraphy at the site is that the grey GRAVEL deposit is older alluvium of the Cracker Creek Drainage System deposited before major Pleistocene glaciation covered the area.

We interpret the oxidized orange-brown GRAVEL to be an advance outwash of the glaciation that came through the Cracker Creek Valley, and covered other nearby valleys also. This interpretation is based on the distinct contact between the two layers and the entire sequence being densely consolidated.

The unconsolidated brown SANDY material above the oxidized orange-brown GRAVEL is interpreted to be recessional outwash deposited by the glacial streams at the head of the

glacier as it receded. The top 2 to 3 feet of forest duff is recent deposits of runoff sediment and organic material accumulated over time.

Placer Gold Deposit: From our site reconnaissance and the information presented to us by Eureka Mining, LLC., the data indicates that gold exists throughout the sand and gravel deposits but not in the top forest duff surface layer. There are higher and lower concentrations in areas already mined; however, this is typical based on the depositional environment of the placer deposits. A trend seen in the bulk testing is that gold concentrations increase with depth. Bulk tests were not conducted on the excavated material of our reconnaissance test pits; however, a 5 gallon bucket of excavated material was taken and panned at each test location. All locations showed evidence of gold from panning.

The 20-acre Eureka Mine Claim is estimated to have 16 acres of mineable placer. Using the calculated cubic yard weighted-average gold-recovery of 0.017 oz/cu yd and an average 65 foot placer thickness, the gold reserve is estimated to be 27,869 oz. Additional mining and testing was performed during our reporting and an additional 20 feet of placer was mined from both mine pits. Using the calculated cubic yard weighted-average gold-recovery of 0.10 oz./yd. for the basal 20 feet placer depth across an area of 8 acres, the gold reserve is estimated to be 25,221 oz. The total estimated reserve for the 20-acre Eureka Mine Claim is 53,090 oz.

Other Observations: This mine, aside from being a placer gold deposit, has potential of offering other exploitable products. Possible products include crushed gravel for aggregate and extraction of other precious metals such as silver, titanium and platinum. Further study, evaluation and testing are recommended to analyze the lead for such applications.

LIMITATIONS

Mineral exploration, testing and resource evaluations have inherent uncertainties. It is a business that involves considerable amount of property investigation, research and speculation. The reader may be unfamiliar with the variability of natural deposits. It should be noted that test pit exploration might not represent potentially unfavorable subsurface conditions between pits. As a result subsurface geologic interpretation and resource evaluation has its limitation.

This analysis must be accepted with the understanding that further information and resource evaluation after this date may justify revision of the interpretations herein. As the mineral development matures and new information becomes available, revisions may be required.

CERTIFICATIONS

I, Gerald T. Ladd, living at 1078 W. Spur Court, Gilbert, Arizona, CERTIFY:

I am a graduate of the Pacific Lutheran University, Parkland, Washington, with a Bachelor of Science Degree in Geology, 2000, and a graduate of the Western Washington University, Bellingham, Washington, with a Master of Science Degree in Geology, 2004. I am a Licensed Geologist, License Number 2566, certified by the State of Washington.

I am a consultant, dba Professional Geologic Consulting Services. I have been requested by Eureka Mining, LLC. to prepare this geologic review and reserve evaluation for their sole and exclusive use.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report and information package and all attachments; and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I have reviewed the Eureka Mining, LLC. data in great detail and certify that all judgments and opinions

are those rendered by Professional Geologic Consulting Services.

I expressly advise you that extracts of certain data shown herein without all stated qualifications may be misleading to third parties.

I certify that neither Gerald T. Ladd nor any of its officers, directors, staff or associates have any corporate, personal or fiduciary interest with Eureka Mining, LLC., or any of its affiliates or subsidiaries, or the properties which are the subject of this information.



A handwritten signature in cursive script that reads "Gerald T. Ladd".

Signature _____

November 1, 2010
Gerald T. Ladd
Washington Licensed Geologist #2566

I, Thomas W. Ladd, living at 249 El Cerrito Drive,
Bakersfield, California, CERTIFY:

I am a graduate of the University of the Pacific, Stockton,
California, with a Bachelor of Science Degree in Geology,
1972, and a graduate of the University of Arizona, Tucson,
Arizona, with a Master of Science Degree in Geology, 1975.
I am a Registered Geologist, License Number 003568,
certified by the State of California, Board of Registration
of Geologists and Geophysicists. I am a Registered
Environmental Assessor, Registration Number REA-00631,
certified by the State of California, Environmental Affairs
Agency.

I am a consultant, dba GeoPlus Consulting
Services and President of Tetra Oil Company,
a California corporation with a business
office at 1400 Easton Drive, Suite 152,
Bakersfield, California 93309.



Signature 

November 1, 2010

THOMAS W. LADD

California Registered Geologist #3568

California Reg. Environmental Assessor #631

Support Data and Information

Figure 1. Index Map - Bourne Quadrangle Topographic Map

Figure 2. Location Index - Claim Boundary Map

Figure 3. Geologic Map Excerpt

Appendix A: Stratigraphic Sections

Photo 1. Looney Pit Cut Wall

Photo 2. Gold Camp Pit Cut Wall

Photo 3. Looney Test Pit 1

Photo 4. Gold Camp Test Pit 1

Photo 5. Gold Camp Test Pit 2

Appendix B: Site Photographs

Photo 6. Overview of Gold Camp Pit looking West

Photo 7. Close up of Contact Between Orange
and Grey Gravels

Photo 8. Close up of Bedrock

Photo 9. Production Plant

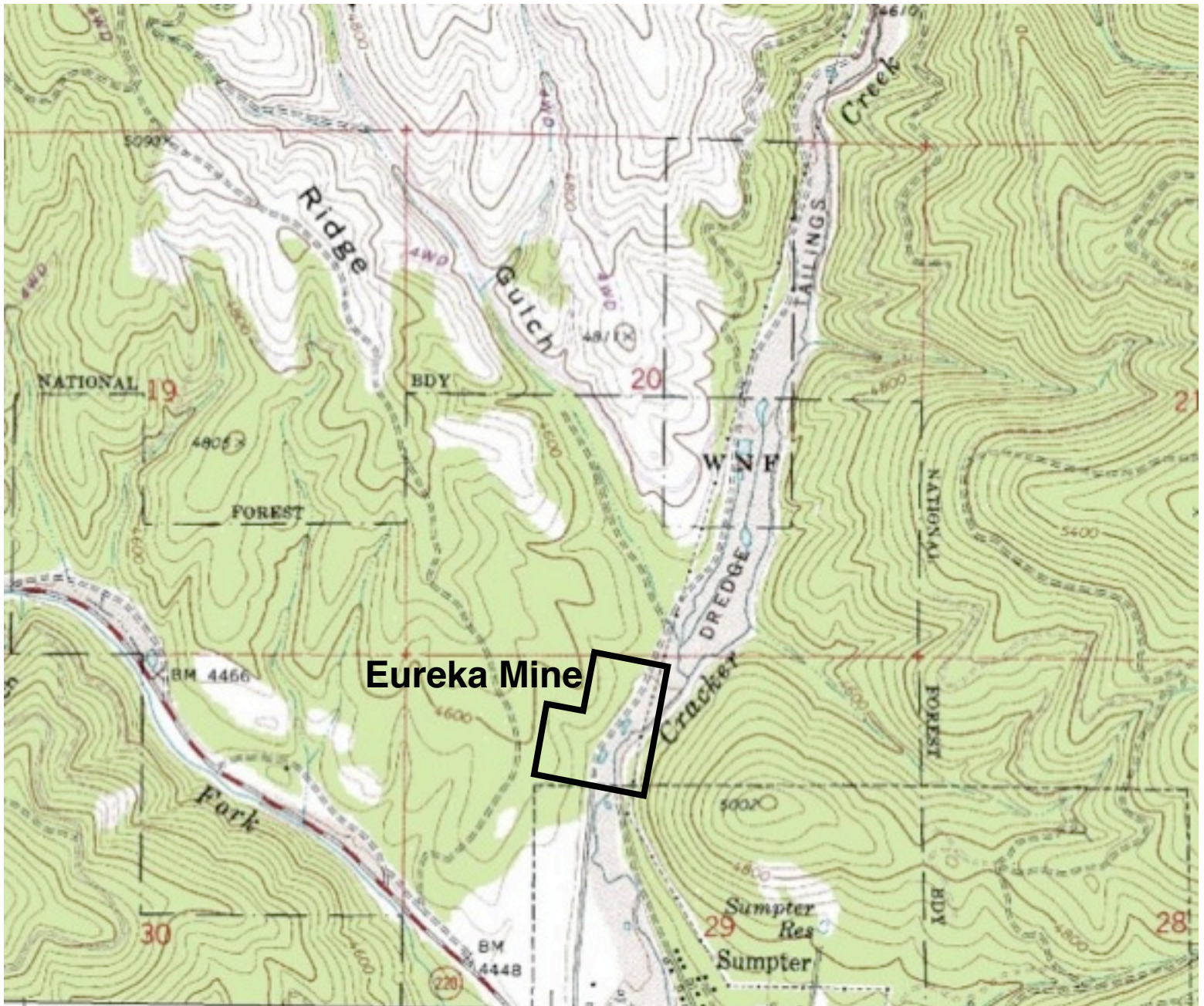


Figure 1: Excerpt from Bourne 7.5 minute quadrangle topographic map. Black line indicates general area of the Eureka Mine Claim. (not to scale)

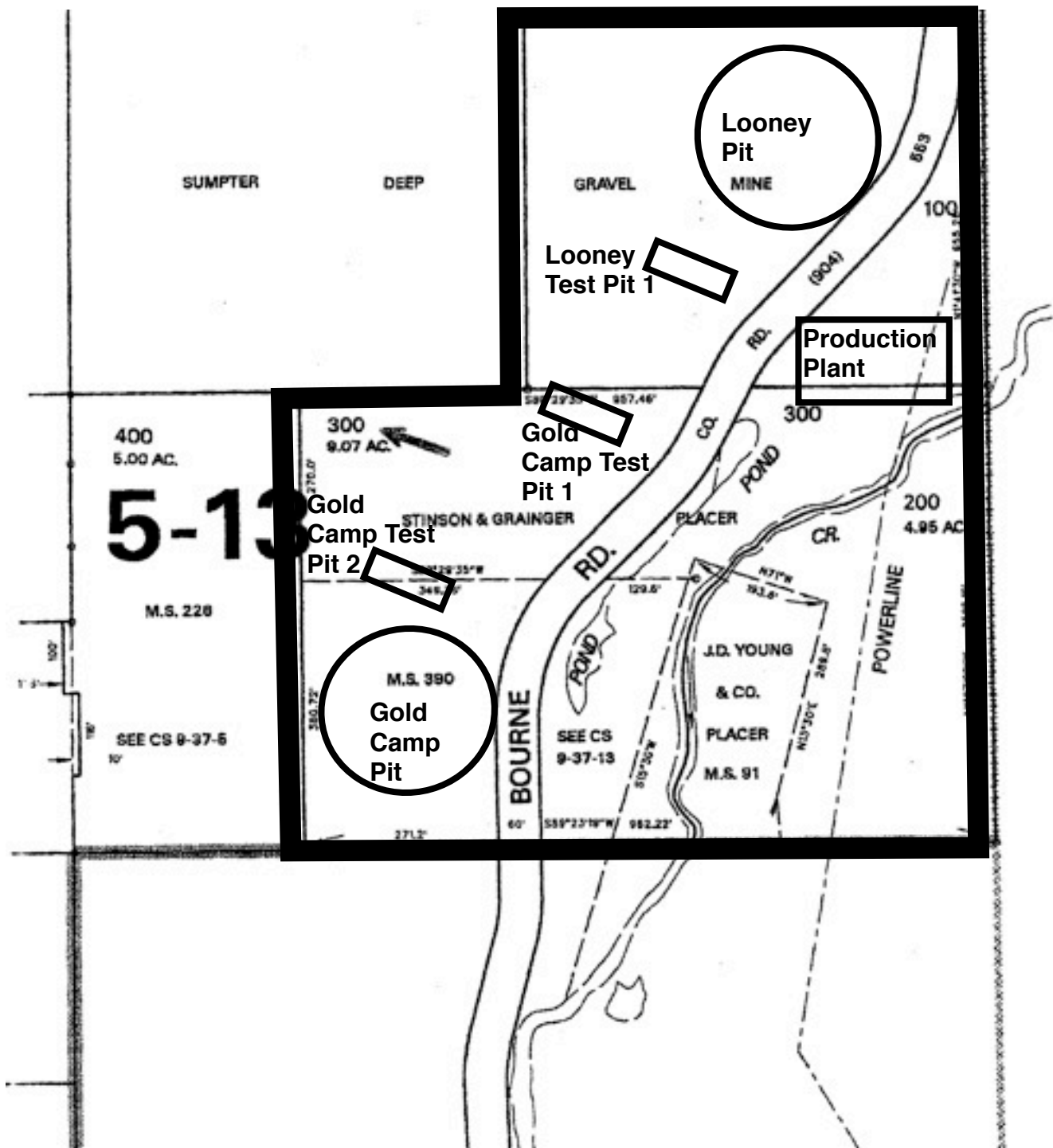


Figure 2: Claim Boundaries of the Eureka Mine Claim in bold. Notice the original boundaries of the southern placer claim which is named Cracker Creek Mine and the Sumpter Deep Gravel Mine to the north. Other items labeled are the Looney Pit and Gold Camp Pit currently being mined, reconnaissance test pit locations and the current location of the production plant. (not to Scale)

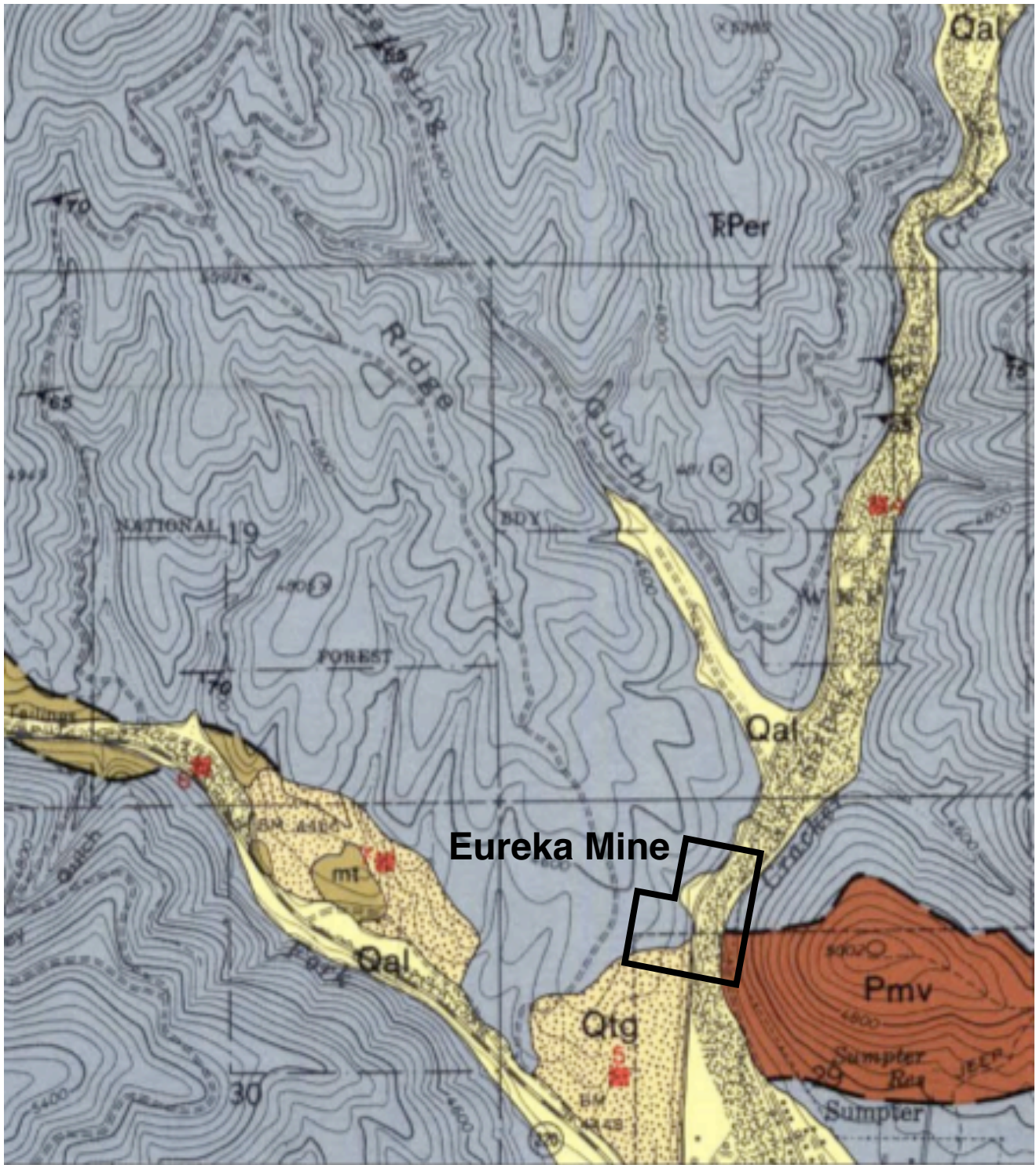


Figure 3: Excerpt from Bourne 7.5 minute quadrangle Preliminary Geologic Map, (Brown 1982). Black line indicates general area of the Eureka Mine Claim. (not to scale)

APPENDIX A

Stratigraphic Sections

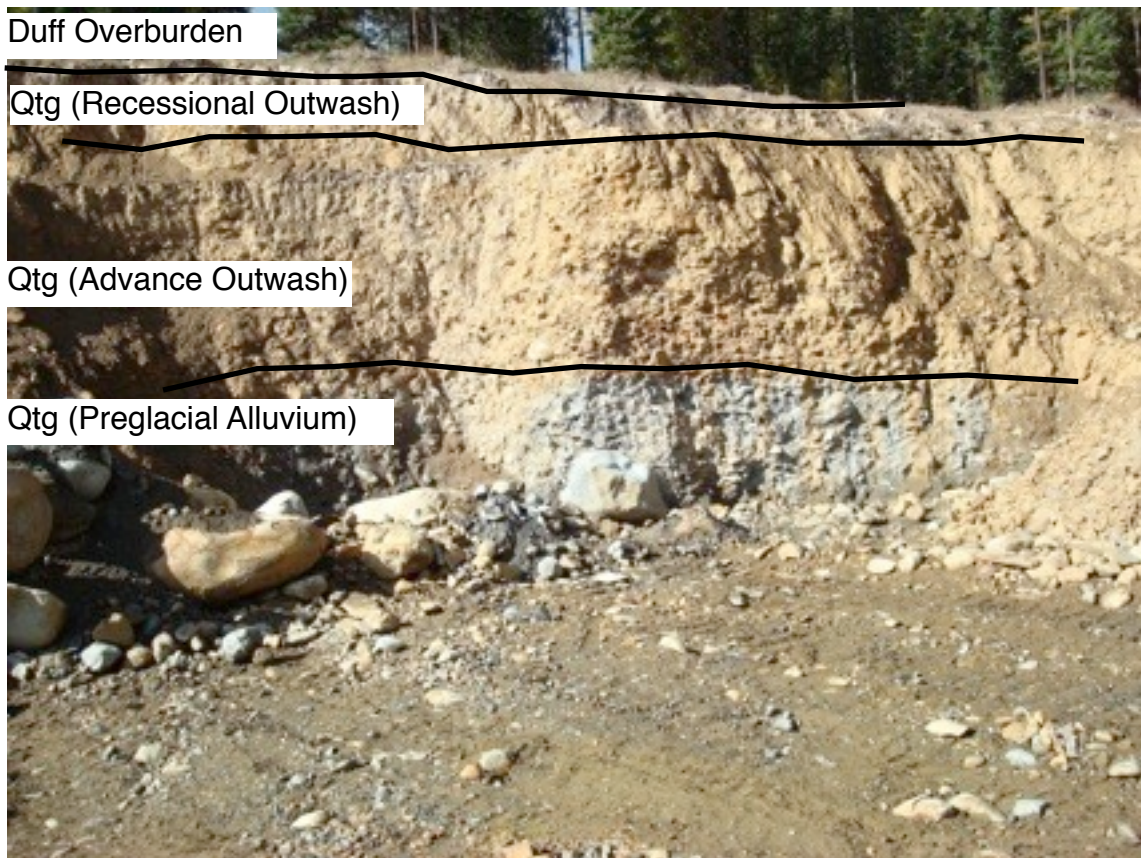


Photo 1: Looking south of a cut wall at the Looney Pit. Lines illustrate the interpreted stratigraphy observed at this location and the lithology is described below. Bedrock is about 4 feet below base of cut, it is outcropped about 30 feet to the left of the photo.

Depth (feet)	Stratigraphic Section	Lithologic Description
0 - 3	Forest Duff	SAND with some silt and trace gravel, fine to medium grains, light brown, unconsolidated very loose, damp, massive
3 - 10	Qtg	SAND with some silt and gravel, fine to medium grains, brown with slight orange oxidation, unconsolidated loose to medium dense, damp to moist, massive to vaguely laminated.
10 - 30	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, oxidized orange brown, consolidated, dense to very dense, moist, vaguely bedded with concentrated layers of boulders and layers of finer gravels.
30 - 50	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, high concentration of sulfides, grey, consolidated, dense to very dense, moist, massive to vaguely bedded.

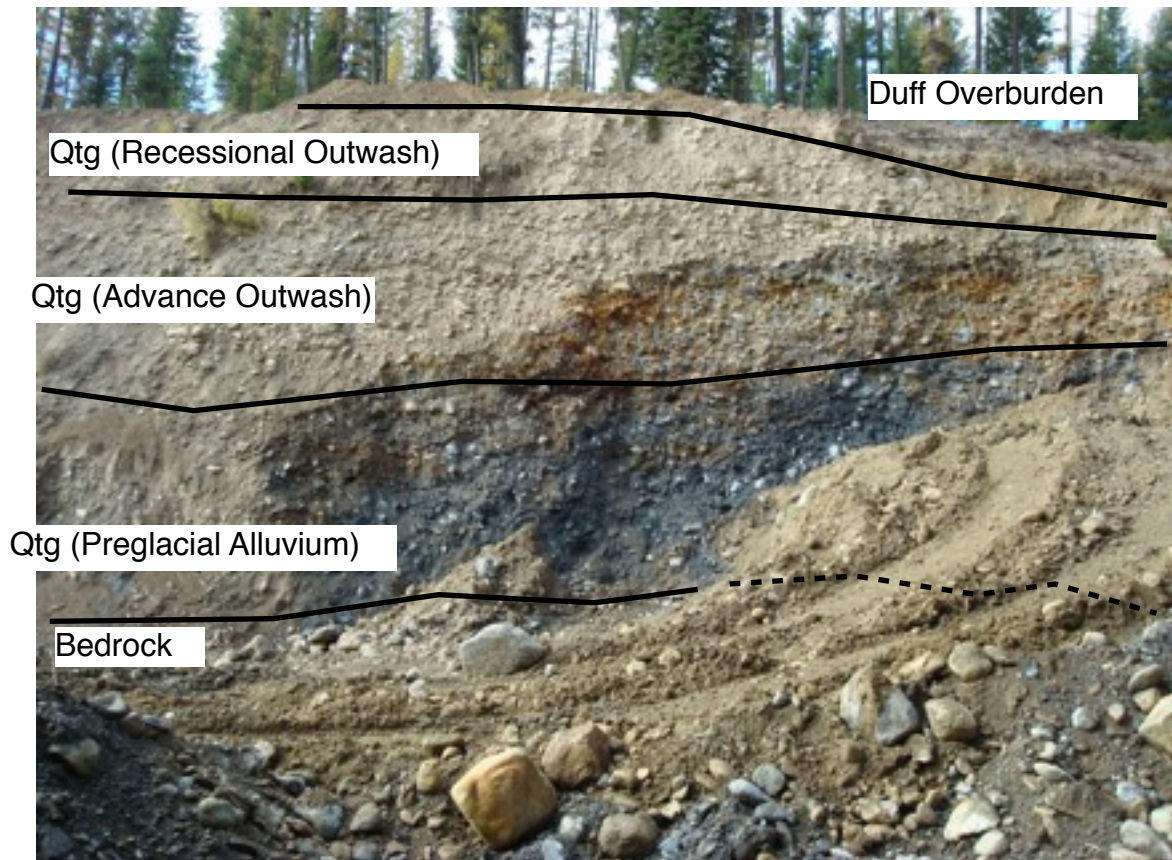


Photo 2: Looking south of a cut wall at the Gold Camp Pit. Lines illustrate the interpreted stratigraphy observed at this location and the lithology is described below. Bedrock is exposed at the base of the cut which is difficult to see.

Depth (feet)	Stratigraphic Section	Lithologic Description
0 - 3	Forest Duff	SAND with some silt and trace gravel, fine to medium grains, light brown, unconsolidated very loose, damp, massive
3 - 10	Qtg	SAND with some silt and gravel, fine to medium grains, brown with slight orange oxidation, unconsolidated loose to medium dense, damp to moist, massive to vaguely laminated.
10 - 30	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, oxidized orange brown, consolidated, dense to very dense, moist, vaguely bedded with concentrated layers of boulders and layers of finer gravels.
30 - 60	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, high concentration of sulfides, grey, consolidated, dense to very dense, moist, massive to vaguely bedded.
60 - 63	TPerm	BEDROCK, Argillite/Shale - dark grey, fine grained, quartz veins up to 6 inches wide, carbon rich, highly fractured and highly foliated.

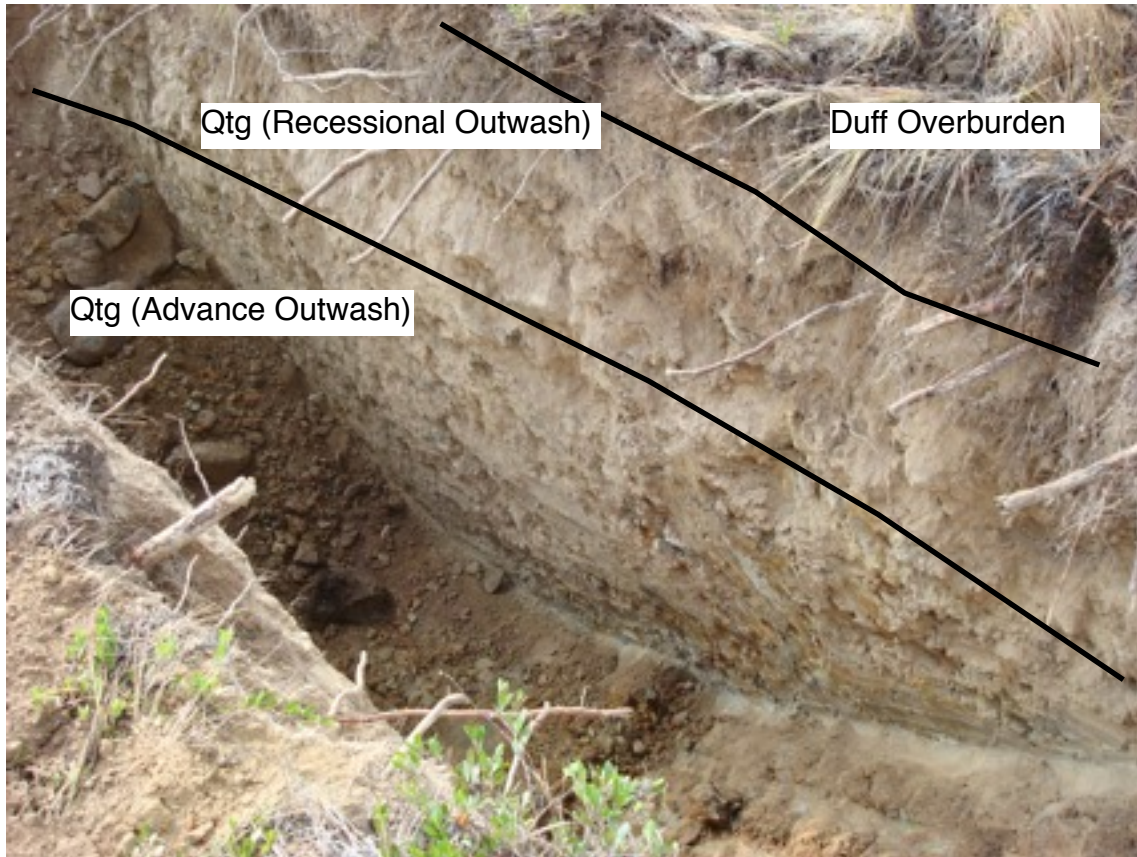


Photo 3: looking at the north sidewall of Looney Test Pit 1. Lines illustrate the interpreted stratigraphy observed at this location and the lithology is described below. The grey GRAVEL (Qtg) and Bedrock was not encountered due to the high density of the material and the constraints of the excavation equipment.

Depth (feet)	Stratigraphic Section	Lithologic Description
0 - 2	Forest Duff	SAND with some silt and trace gravel, fine to medium grains, light brown, unconsolidated very loose, damp, massive
2 - 4	Qtg	SAND with some silt and gravel, fine to medium grains, brown with slight orange oxidation, unconsolidated loose to medium dense, damp to moist, massive to vaguely laminated.
4 - 12	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, oxidized orange brown, consolidated, dense to very dense, moist, vaguely bedded with concentrated layers of boulders and layers of finer gravels.

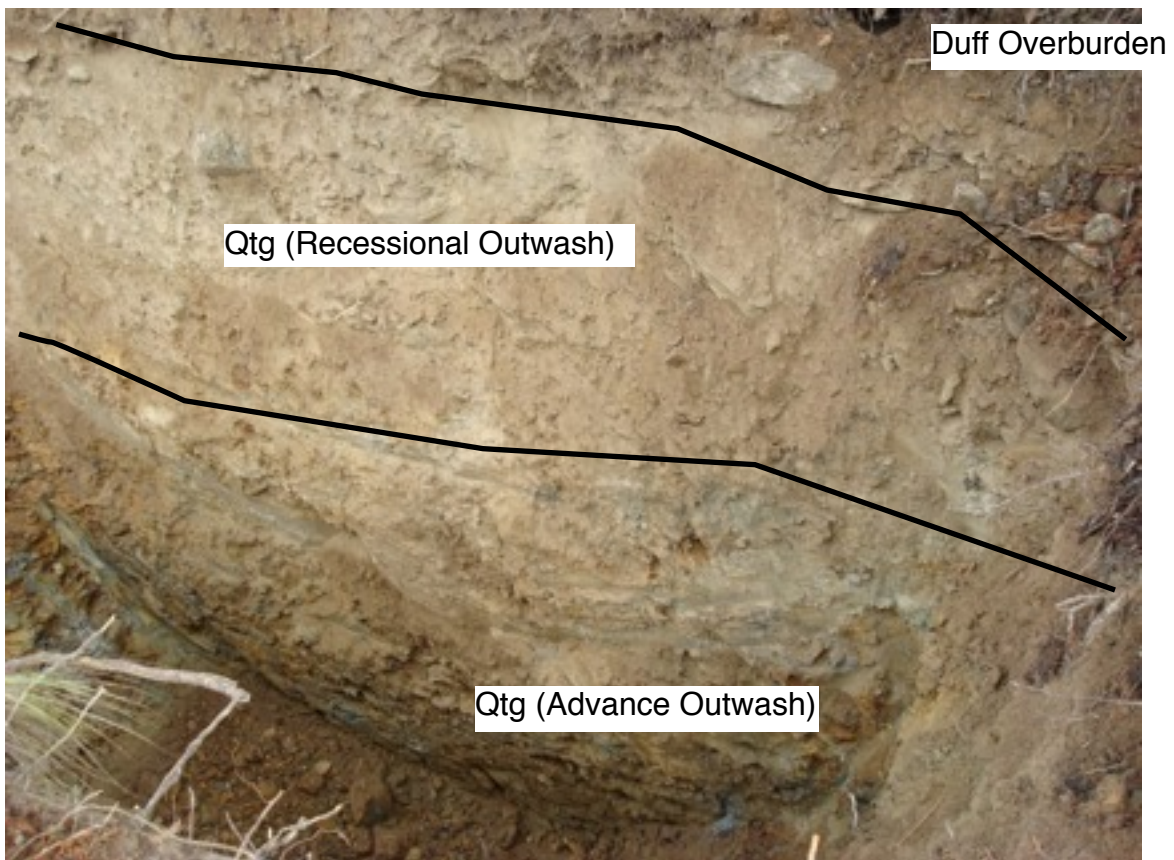


Photo 4: Looking at the north sidewall of Gold Camp Test Pit 1. Lines illustrate the interpreted stratigraphy observed at this location and the lithology is described below. The grey GRAVEL (Qtg) and Bedrock was not encountered due to the high density of the material and the constraints of the excavation equipment.

Depth (feet)	Stratigraphic Section	Lithologic Description
0 - 2	Forest Duff	SAND with some silt and trace gravel, fine to medium grains, light brown, unconsolidated very loose, damp, massive
2 - 8	Qtg	SAND with some silt and gravel, fine to medium grains, brown with slight orange oxidation, unconsolidated loose to medium dense, damp to moist, massive to vaguely laminated.
8 - 20	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, oxidized orange brown, consolidated, dense to very dense, moist, vaguely bedded with concentrated layers of boulders and layers of finer gravels.

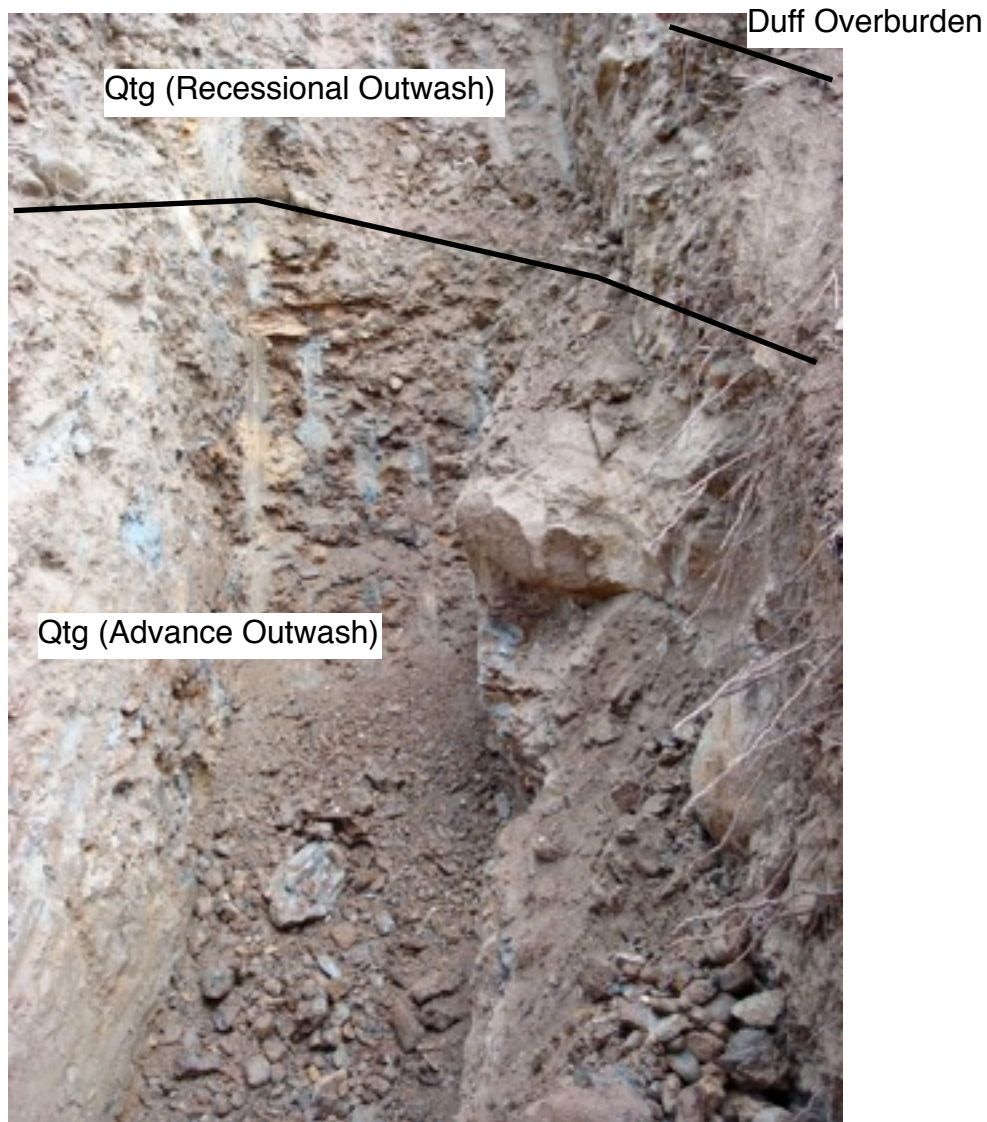


Photo 5: Looking at the north sidewall of Gold Camp Test Pit 2. Lines illustrate the interpreted stratigraphy observed at this location and the lithology is described below. The grey GRAVEL (Qtg) and Bedrock was not encountered due to the high density of the material and the constraints of the excavation equipment.

Depth (feet)	Stratigraphic Section	Lithologic Description
0 - 2	Forest Duff	SAND with some silt and trace gravel, fine to medium grains, light brown, unconsolidated very loose, damp, massive
2 - 6	Qtg	SAND with some silt and gravel, fine to medium grains, brown with slight orange oxidation, unconsolidated loose to medium dense, damp to moist, massive to vaguely laminated.
6 - 15	Qtg	GRAVEL with sand and silt, some boulders up to 4 feet diameter, fine to coarse grains, oxidized orange brown, consolidated, dense to very dense, moist, vaguely bedded with concentrated layers of boulders and layers of finer gravels.

APPENDIX B

Site Photographs



Photo 6: Looking east over Gold Camp Pit. All five stratigraphic units make are exposed in this cut section. Bourne Road is located just at the entrance to the mine pit. Graded dredge tailings makeup the Cracker Creek Valley floor across the road.

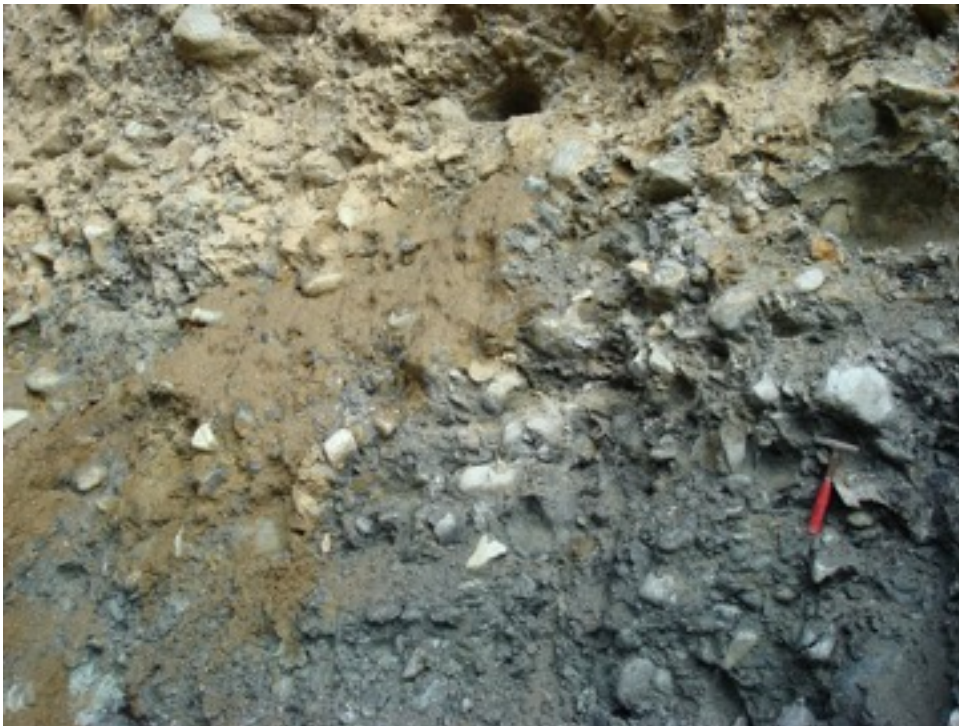


Photo 7: Close up of the distinct contact between the Qtz orange-brown and grey gravels.



Photo 8: Close up of the highly fractured weak bedrock.



Photo 9: The production plant, tailings piles and one of the settling ponds.

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