

Field Inspection Report

-Pebble Copper/Gold Exploration Project-

Personnel: Shawn Stokes (ADEC) and
Jeff Estensen (ADNR/OHMP)

Inspection Date: June 17-18, 2008

APMA No.: A086118

- | | |
|---|---|
| <p><input type="checkbox"/> Inspection Type</p> <p><input type="checkbox"/> Complete: All drill rigs were inspected
(Figures 1 and 2)</p> <p><input type="checkbox"/> Follow-up:</p> <p><input type="checkbox"/> Response to complaint:</p> <p><input type="checkbox"/> Weather Conditions</p> <p><input type="checkbox"/> Temperature: Approx 60° F</p> <p><input type="checkbox"/> Wind: S 5 knots</p> <p><input type="checkbox"/> Precipitation and types: None</p> <p><input type="checkbox"/> Visibility: > Unlimited</p> <p><input type="checkbox"/> Sky Conditions: 30 % overcast-scattered</p> <p><input type="checkbox"/> Ground conditions: Clear</p> <p><input type="checkbox"/> Wildlife Observed</p> | <p><input type="checkbox"/> Bear:</p> <p><input type="checkbox"/> Caribou:</p> <p><input type="checkbox"/> Moose:</p> <p><input type="checkbox"/> Waterfowl:</p> <p><input type="checkbox"/> Fish:</p> <p><input type="checkbox"/> Other: Ground squirrels, bald eagle</p> <p><input type="checkbox"/> Water level Frying Pan Lake: Not Observed</p> <p><input type="checkbox"/> Observed inflow: Yes ___ No ___</p> <p><input type="checkbox"/> Observed outflow: Yes ___ No ___</p> |
|---|---|

Comments: Overall all rigs were clean and orderly, and fuel storage spill containment measures were in place. All drilling operations appeared to be in compliance with associated water use and withdrawal permits. The inspectors during the May 7, 2008 visit noted the presence of windblown litter in the area. We did not observe any windblown litter on the tundra during our visit. Also, we did not observe nor visit drill rig No. 8 (the May 7, 2008 inspectors noted the lack of a tundra mat).

Recommendations:

- Provide PLP with a name list and photographs of all agency personnel who will be taking part in the state site inspections. Work with PLP to see if safety/operational briefings can be conducted prior to agency personnel traveling to the site. This would allow more time for inspections, potentially eliminating overnight visits.
- Prior to visits, request from PLP to provide monitoring staff with updated operations map for the Pebble exploration projects. Also, inform monitoring staff of any new developments or changes in operational plans.

Actions Needed: Follow-up on reclaimed sites 7362 and 7389 to ensure the drill holes are cemented and capped, and the reclamation process is completed. Other reclamation sites should be viewed during future visits.

Drill rig no. 5 (8407; Figure 3)

Date.: June 17, 2008

Activity: Operational

- Condition of Drilling Site**
 - Distance from water body: **> 100 ft.**
 - Location of fuel storage: **On pad (Figure 4).**
 - Sorbent Pads Present or Not: **Yes**
 - Tundra Mat: **Yes**
 - Pipe off Tundra: **Yes**
 - Litter: **None**
 - Activity: **Operational**
 - Trash Containment: **Yes**
 - Sanitary Facilities: **Yes**
 - Any spills or staining, or 'none' for that matter: **None**
 - General impression of site: **Clean, orderly**

- Drilling Activity**
 - Drill additives in use (list): **Yes**
 - Water discharged: **Yes**
 - Water recirculation: **Yes**
 - Artesian zone encountered: **NA**

- Sump Pit**
 - Location: **near rig (Figure 5)**
 - Discharge trench: **yes**
 - Dimension pit: **not measured**
 - In use: **yes**

- Sump Pit Cont'd**
 - Location and extent of discharged material: **land application discharge approx 500 ft from rig.**
 - Topsoil, muck, tundra stockpiled: **Yes**
 - Location of secondary sump pit: **NA**
 - Hose color: **White**
- Drill Water Supply**
 - Stream/Lake/Pond: **small seep**
 - Location: **near rig**
 - Adequate water flow and depth for fish passage in streams? **NA**
 - Evidence of significant impacts to riparian vegetation or stream banks? **None**
 - Relative water level? **Base Flow**
 - General impression of water body, i.e. clear, turbid, tannic colored, etc.? **Clear. No indication of pollution or sedimentation.**
 - Intake structure: **Present**
 - Structure clear of debris: **NA**
 - Mesh size: **not measured**
 - Submerged: **not completely**
 - Pump location to source: **> 100 ft**
 - Catch basin for fuel supply: **Yes**
 - Sorbent Pads Present or Not: **Yes**
 - Hose color: **Black**

Drill rig no. 6 (8412)

Date.: June 17, 2008

Activity: Operational

- Condition of Drilling Site**
 - Distance from water body: **> 100 ft.**
 - Location of fuel storage: **On pad.**
 - Sorbent Pads Present or Not: **Yes**
 - Tundra Mat: **Yes**
 - Pipe off Tundra: **Yes**
 - Litter: **None**
 - Trash Containment: **Yes**
 - Sanitary Facilities: **Yes**
 - Any spills or staining, or 'none' for that matter:
None
 - General impression of site: **Clean.**
- Drilling Activity**
 - Drill additives in use (list): **yes**
 - Drill water discharged: **Same area as rig no. 6**
 - Water recirculation: **Yes**
 - Artesian zone encountered: **Unknown**
- Sump Pit**
 - Location: **near pad (Figure 6)**
 - Discharge trench: **Yes**
 - Dimension pit: **not measured**
 - In use: **Yes**
 - Location and extent of discharged material?
**Depression > a thousand feet from rig and
water source.**
- Sump Pit Cont'd**
 - Topsoil, muck, tundra stockpiled: **Yes**
 - Location of secondary sump pit: **NA**
 - Hose color: **white**
- Drill Water Supply**
 - Stream/Lake/Pond: **Kettle pond (Figure 7)**
 - Location: **nearby**
 - Adequate water flow and depth for fish passage
in streams? **NA**
 - Evidence of significant impacts to riparian
vegetation or stream banks? **none**
 - Relative water level? **high**
 - General impression of water body, i.e. clear,
turbid, tannic colored, etc.? **Good, no
indication of pollution**
 - Intake structure in use: **Yes (Figure 8)**
 - Structure clear of debris: **Yes.**
 - Mesh size: **not measured**
 - Submerged: **not completely**
 - Pump location to source: **> 100 ft**
 - Catch basin for fuel supply: **Yes.**
 - Sorbent Pads Present or Not: **Yes.**
 - Hose color: **Black (insulated)**

Drill rig no. 2 (8415)

Date.: June 17, 2008

Activity: Operational

- Condition of Drilling Site**
 - Distance from water body: **> 100 ft.**
 - Location of fuel storage: **On pad.**
 - Sorbent Pads Present or Not: **Yes**
 - Tundra Mat: **Yes**
 - Pipe off Tundra: **Yes**
 - Litter: **None**
 - Spill Indications: **None**
 - Trash Containment: **Yes**
 - Sanitary Facilities: **Yes**
 - Any spills or staining, or 'none' for that matter: **None.**
 - General impression of site: **Clean and orderly.**
- Drilling Activity**
 - Drill additives in use (list): **yes**
 - Drill water discharged: **yes**
 - Water recirculation: **yes**
 - Artesian zone encountered: **Unknown**
- Sump Pit**
 - Location: **near rig**
 - Discharge trench: **Yes.**
 - Dimension of pit in use: **Not measured.**
 - Location and extent of discharged material?
- Sump Pit Cont'd**
 - Topsoil, muck, tundra stockpiled: **Yes**
 - Location of secondary sump pit: **NA**
 - Hose color: **Black (insulated).**
- Drill Water Supply**
 - Stream/Lake/Pond: **same as rig 6**
 - Location: **nearby**
 - Adequate water flow and depth for fish passage in streams? **NA**
 - Evidence of significant impacts to riparian vegetation or stream banks? **No impact to shore observed.**
 - Relative water level? **High**
 - General impression of water body, i.e. clear, turbid, tannic colored, etc.? **Good, no signs of pollution**
 - Intake structure: **present**
 - Structure clear of debris: **yes**
 - Mesh size: **not measured**
 - Submerged: **Yes.**
 - Pump location to source: **> feet**
 - Catch basin for fuel supply: **Yes**
 - Sorbent Pads Present or Not: **Yes**
 - Hose color: **Black (insulated)**

Drill rig no. 1 (8414; Figure 9)

Date.: June 17, 2008

Activity: Operational

- Condition of Drilling Site**
 - Distance from water body: **> 100 ft.**
 - Location of fuel storage: **On pad.**
 - Sorbent Pads Present or Not: **Yes**
 - Tundra Mat: **Yes**
 - Pipe off Tundra: **Yes**
 - Litter: **None**
 - Spill Indications: **None**
 - Trash Containment: **Yes**
 - Sanitary Facilities: **Yes**
 - Any spills or staining, or 'none' for that matter: **None.**
 - General impression of site: **Clean and orderly.**

- Drilling Activity**
 - Drill additives in use (list): **yes**
 - Drill water discharged: **yes**
 - Water recirculation: **yes**
 - Artesian zone encountered: **Unknown**

- Sump Pit**
 - Location: **near rig**
 - Discharge trench: **Yes.**
 - Dimension of pit in use: **Not measured.**
 - Location and extent of discharged material?
Depression away from rig.

- Sump Pit Cont'd**
 - Topsoil, muck, tundra stockpiled: **Yes**
 - Location of secondary sump pit: **NA**
 - Hose color: **Black (insulated).**

- Drill Water Supply**
 - Stream/Lake/Pond: **small unnamed stream**
 - Location: **nearby**
 - Adequate water flow and depth for fish passage in streams? **Not observed**
 - Evidence of significant impacts to riparian vegetation or stream banks? **No impact to shore observed.**
 - Relative water level? **Not observed**
 - General impression of water body, i.e. clear, turbid, tannic colored, etc.? **NA**
 - Intake structure: **not observed, rig staff said was present**
 - Structure clear of debris: **NA**
 - Mesh size: **NA**
 - Submerged: **NA**
 - Pump location to source: **> 100 feet (Figure 10)**
 - Catch basin for fuel supply: **Yes**
 - Sorbent Pads Present or Not: **Yes**
 - Hose color: **Black (insulated)**

Drill rig no. 3 (8411)

Date.: June 18, 2008

Activity: Operational

- Condition of Drilling Site**
 - Distance from water body: **> 100 ft.**
 - Location of fuel storage: **On pad.**
 - Sorbent Pads Present or Not: **Yes**
 - Tundra Mat: **Yes**
 - Pipe off Tundra: **Yes**
 - Litter: **None**
 - Spill Indications: **None**
 - Trash Containment: **Yes**
 - Sanitary Facilities: **Yes**
 - Any spills or staining, or 'none' for that matter: **None.**
 - General impression of site: **Clean and orderly.**

- Drilling Activity**
 - Drill additives in use (list): **yes**
 - Drill water discharged: **yes**
 - Water recirculation: **yes**
 - Artesian zone encountered: **Unknown**

- Sump Pit**
 - Location: **near rig (Figure 11)**
 - Discharge trench: **Yes.**
 - Dimension of pit in use: **Not measured.**
 - Location and extent of discharged material?
Depression away from rig.

- Sump Pit Cont'd**
 - Topsoil, muck, tundra stockpiled: **Yes**
 - Location of secondary sump pit: **NA**
 - Hose color: **Black (insulated).**

- Drill Water Supply**
 - Stream/Lake/Pond: **kettle pond (Figure 12)**
 - Location: **nearby**
 - Adequate water flow and depth for fish passage in streams? **NA**
 - Evidence of significant impacts to riparian vegetation or stream banks? **No impact to shore observed.**
 - Relative water level? **High**
 - General impression of water body, i.e. clear, turbid, tannic colored, etc.? **No indication of pollution.**
 - Intake structure: **present**
 - Structure clear of debris: **yes**
 - Mesh size: **not measured**
 - Submerged: **yes**
 - Pump location to source: **> 100 feet**
 - Catch basin for fuel supply: **Yes**
 - Sorbent Pads Present or Not: **Yes**
 - Hose color: **Black (insulated)**

Drill rig no. 4 (8413; Figure 13)

Date.: June 18, 2008

Activity: Operational

- Condition of Drilling Site**
 - Distance from water body: **> 100 ft.**
 - Location of fuel storage: **On pad.**
 - Sorbent Pads Present or Not: **Yes**
 - Tundra Mat: **Yes**
 - Pipe off Tundra: **Yes**
 - Litter: **None**
 - Spill Indications: **None**
 - Trash Containment: **Yes**
 - Sanitary Facilities: **Yes**
 - Any spills or staining, or 'none' for that matter: **None.**
 - General impression of site: **Clean and orderly.**
- Drilling Activity**
 - Drill additives in use (list): **yes**
 - Drill water discharged: **yes**
 - Water recirculation: **yes**
 - Artesian zone encountered: **Unknown**
- Sump Pit**
 - Location: **near rig (Figure 14)**
 - Discharge trench: **Yes.**
 - Dimension of pit in use: **Not measured.**
 - Location and extent of discharged material?
Depression away from rig.
- Sump Pit Cont'd**
 - Topsoil, muck, tundra stockpiled: **Yes**
 - Location of secondary sump pit: **NA**
 - Hose color: **Black (insulated).**
- Drill Water Supply**
 - Stream/Lake/Pond: **kettle pond**
 - Location: **nearby**
 - Adequate water flow and depth for fish passage in streams? **NA**
 - Evidence of significant impacts to riparian vegetation or stream banks? **No impact to shore observed.**
 - Relative water level? **High**
 - General impression of water body, i.e. clear, turbid, tannic colored, etc.? **No indication of pollution.**
 - Intake structure: **present**
 - Structure clear of debris: **yes**
 - Mesh size: **not measured**
 - Submerged: **yes**
 - Pump location to source: **> 100 feet**
 - Catch basin for fuel supply: **Yes**
 - Sorbent Pads Present or Not: **Yes**
 - Hose color: **Black (insulated)**

Abandoned Drill Site No.: 7362 (Figure 15)

Date: June 18, 2008

- Plugged: **No**
- Cemented: **Unknown.**
- Standing pipe: **No. Wooden stake marked the location.**
- Sump pit filled in: **Yes**
- Water discharge trench filled in: **Yes.**
- Site re-vegetated: **No.**
- Artesian water present: **No.**
- Any spills or staining, or 'none': **None observed.**

Comments: **Reclamation work had been done at this site. Water appeared to be discharging from the hole (Figure 16). Pebble staff informed us reclamation of this site was ongoing. Future site visits need to follow up and ensure the hole is cemented and plugged.**

Abandoned Drill Site No.: 5331 (Figure 17)

Date: June 18, 2007

- Plugged: **Yes.**
- Cemented: **Unknown.**
- Standing pipe: **No. Wooden stake marked the location.**
- Sump pit filled in: **Not used. Drilling water discharge was on tundra (prior to change in operation that required sump pit use).**
- Water discharge trench filled in: **Yes.**
- Site re-vegetated: **Yes**
- Artesian water present: **No.**
- Any spills or staining, or 'none': **None observed.**

Comments: **Footprint still visible with bare patches present. Pebble staff informed us site reclamation was ongoing.**

Abandoned Drill Site No.: 7389 (Figure 18)

Date: June 18, 2008

- Plugged: **No**
- Cemented: **NA.**
- Standing pipe: **No. Wooden stake marked the location.**
- Sump pit filled in: **Yes**
- Water discharge trench filled in: **Yes.**
- Site re-vegetated: **No.**
- Artesian water present: **No.**
- Any spills or staining, or 'none': **None observed.**

Comments: **Reclamation work had been done at this site. Water appeared to be discharging from the hole. Pebble staff informed us reclamation of this site was ongoing. Future site visits need to follow up and ensure the hole is cemented and plugged.**

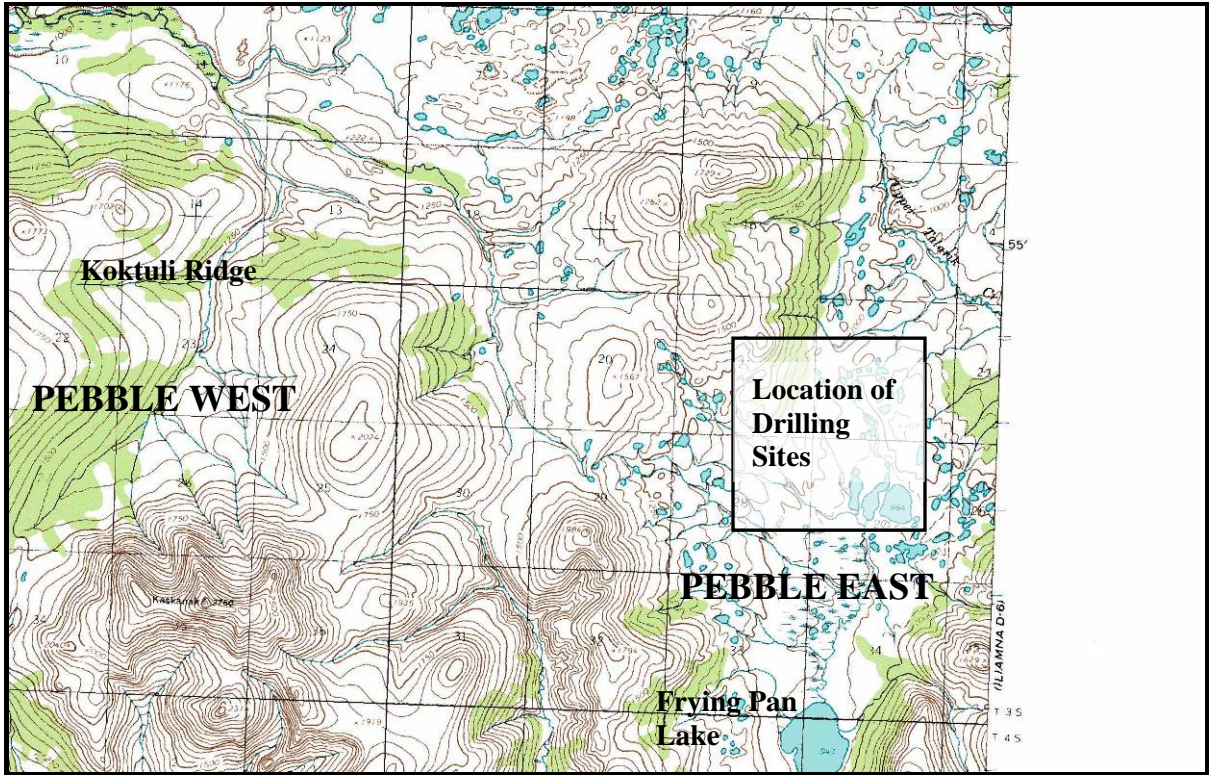


Figure 1. Location map of Pebble Project area and drilling sites.

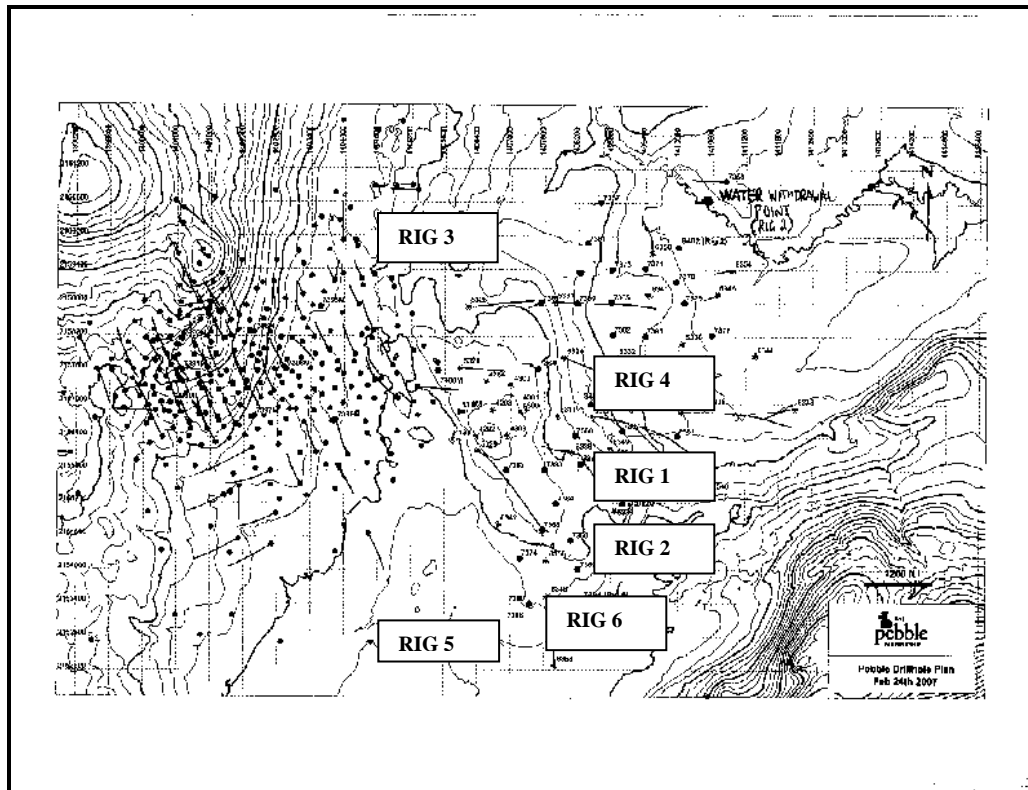


Figure 2. Approximate locations of drilling rigs



Figure 3. Drill rig 8407 (No. 5).



Figure 4. Fuel containment area, drill rig 8407 (No. 5).



Figure 5. Drill water overflow and recycle sump, drill rig 8407 (No. 5).



Figure 6. Drill water overflow and recycle sump, drill rig 8412 (No. 6)

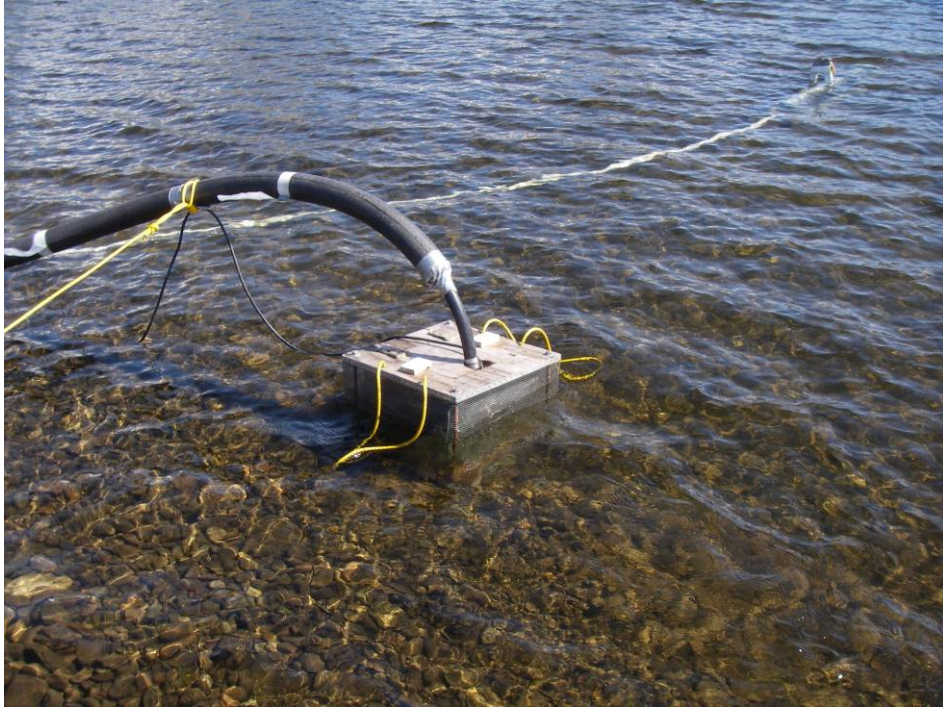


Figure 7. Water recycle sump, drill rig number 5.

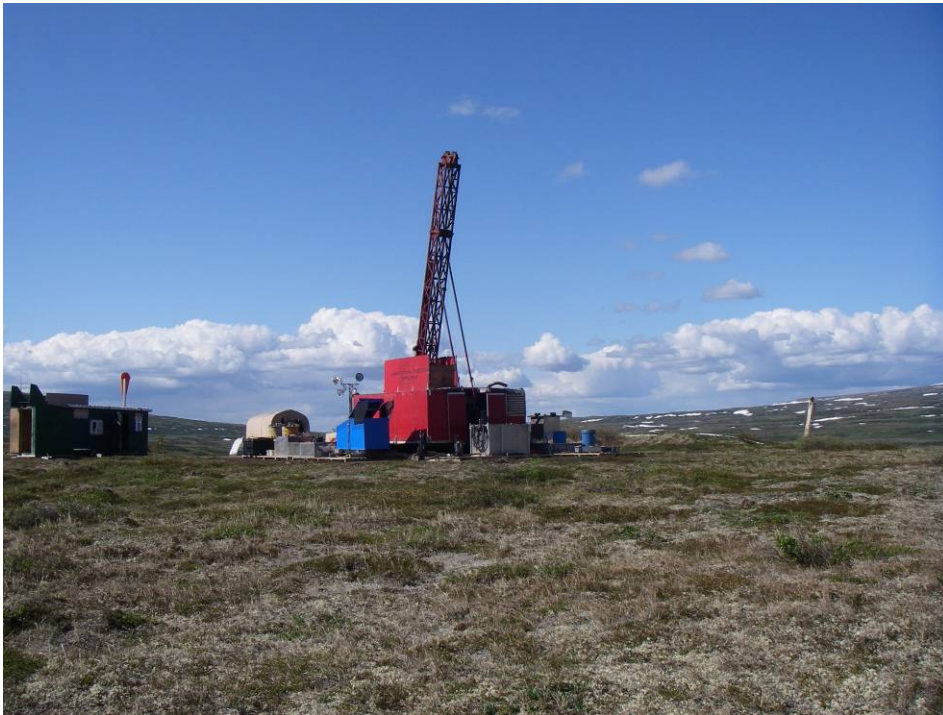


Figure 8. Drill rig 8415 (No. 2)

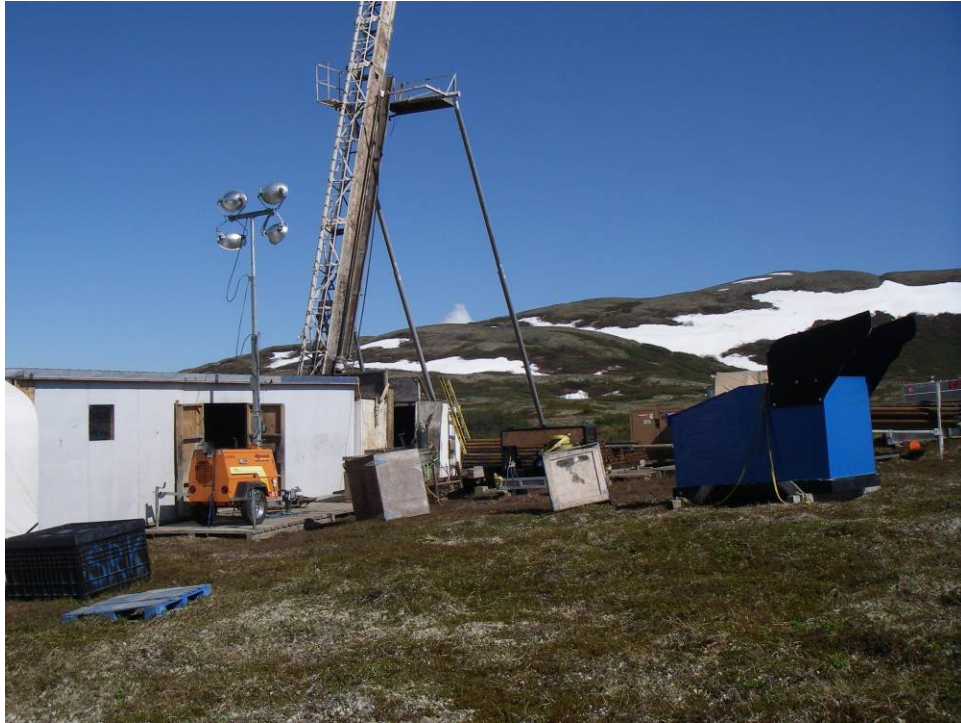


Figure 9. Drill rig 8414 (No. 1).

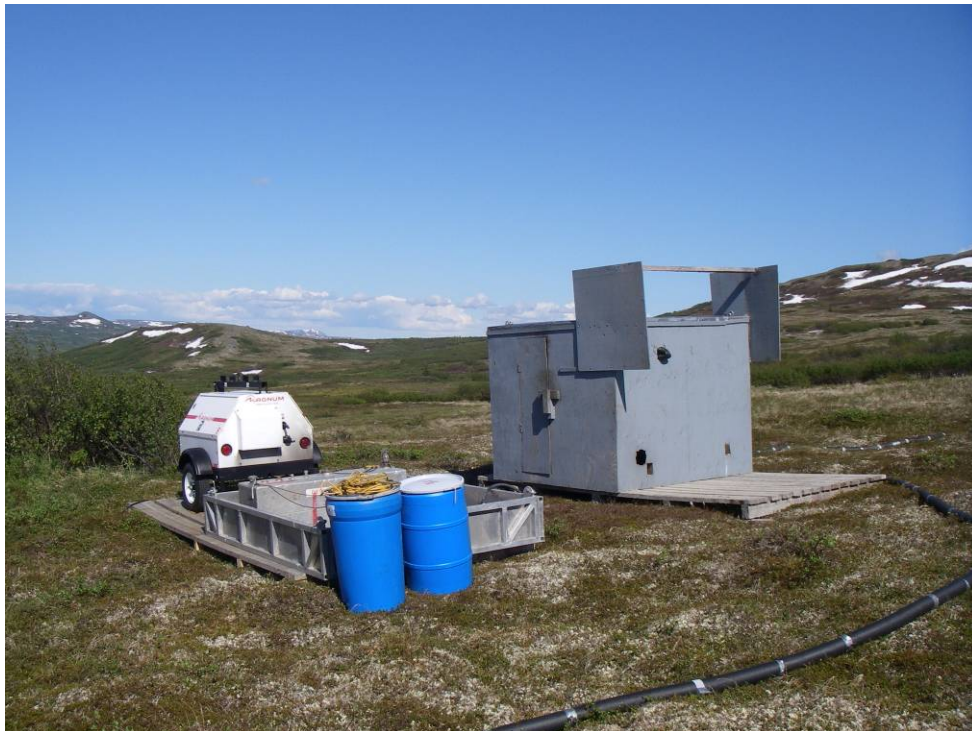


Figure 10. Drill rig 8414 (No. 1) water intake pump, generator, and fuel storage.



Figure 11. Overflow and recycle water sumps, drill rig 8411 (No. 3).



Figure 12. Water source, drill rig 8411 (No.3).



Figure 13. Drill rig 8413 (No. 4).



Figure 14. Overflow and recycle sump, drill rig 8413 (No. 4).



Figure 15. Reclamation site 7362.



Figure 16. Water discharge from drill hole, reclamation site 7362.



Figure 17. Reclamation site 5331.



Figure 18. Reclamation site 7389