

FIELD INSPECTION CHECKLIST

Outline

1. Documentation
2. Inspection
3. Use and Occupancy
4. Miner's Administration process
5. Reclamation

Inspections should be approached with flexibility

- Remember that this mine is their livelihood!
- Attempt to resolve issues at the lowest level, if you can fix on site, DO IT!
- Enforcement actions are a tool to doing your job- work with the A.O. to ensure enforcement actions achieve their intended object in a reasonable timeframe and cost
- Get to know the miner! Effective communication can achieve much better results than a heavy hand

1. Field Documentation

- Personal field notes- use notes to recreate a day in the field- who, what, where, when
- Inspection Form
- Photos- Make note of photo details
- GIS data collection - Complete attribute fields so you know what the data means
- Sampling data (water quality, veg cover, contaminate soil)
 - Take pictures of process
 - Record results

2. Key areas to inspect

Water Quality

- General Permit
 - 5NTU at point, above background
- If a mixing zone permit
 - NTU at end of zone, at discharge, and background
- Measure NTU of settling ponds
 - Check inlet and outlet values to identify settling trends

Water Quantity

- Measure pond sizes
 - Consistent with plan?
- Confirm pump sizes
- Annotated miner's estimate on water volume throughput at wash plant
- Walk the entire water process
 - From intake to discharge to include: wash plant, settling ponds, and recycle setup
- Does effluent volume match makeup/recycle volumes?

Washplant

- Size
 - Throughput volume of material

- Water usage
- Sluice box sizes
- Trommel diameter and length
- Check pump sizes
- Using makeup or recycle water?
- Annotated if a fixed or mobile plant
 - record location

Stockpiles/Tailings

- Topsoil?
 - Is it protected from erosion- covered, berm around base
- Overburden stockpiles need to be protected from erosion
- Tailings
 - If washplant segregates the material by size is it mixed to create a well-graded reclamation product?
 - Fines from tailings piles used immediately after removal or stockpiled?- how
- Erosion control measures used?
 - Silt fences or the like at base of material
- Is vegetation/slash material properly stockpiled to reuse in reclamation?

Fuel/oil storage

- SPCCP or Fuel Spill Plan on site
 - BLM-AK requires SPCCP for all operations
- Spill response kit near storage area
- Observe fueling area
 - Fill valve/nozzle contained!!
 - Soil stained from spills
- Used oil and fuel drums (55 gal) contained?
- BLM-AK policy is ALL containers must be contained¹

Mining process

- Method of mining reasonable
- Exploration conducted
 - Trenching or drilling
- Is concurrent reclamation happening
- Storm/pit water controls in place

Environmental issues

- Cultural resources
- Fisheries resources
- Wildlife resources
- Vegetation
 - stressed
 - Unnecessary removal/impacts

3. Use and occupancy

What's incident? Remember that Use and Occupancy must be incident to an active mining operation! If it looks like a hunting camp... it probably needs more investigation

Use and occupancy

- Access
- Equipment
- Structures
- Other Uses

Access

- Is it reasonable / authorized
- Is it maintained?
 - By who?
- Are there erosion or degradation issues
- Note length and width
- Any gates
- How many users

Equipment

- One man's trash is another man's treasure!
- Mindset of so many miners- fine line between "waste" and scrap metal
- Is it operational?
- Document all fluid leaks from equipment with some quantitative description. (example: old oil stain 2 feet around under rear differential – no longer leaking (or) 4-foot diameter area of saturated soil stain under hydraulic tank)
- Photo of each piece
 - Include serial number of mfg. plate
- Is it a reasonable piece of equipment for the mine? A rule of thumb for the amount of equipment and parts for an Alaska operation is one non-functioning piece of equipment of the same make and model for every piece of equipment described and authorized in their plan of operations/notice. They may also have an equivalent weight of scrap iron and parts as the largest piece of mobile equipment on site.

Structures

- Is it reasonable
 - Appearance can tell you a lot
- Is it consistent with the approved plan
- Is the mine and camp in generally good housekeeping
- If a Notice
 - Is the occupancy reasonable and following NEPA stipulations
- Look for leaking heating-fuel drums

Other uses

- If there are no signs of mining.... What are they doing?
- Occupancies can ONLY be allowed if they support mining activity
- Some gold pans and a shovel next to a cabin...?

4. Miner's Administrative process

- Do they have a copy of the :
 - Mine plan / Notice / APMA
 - NEPA
 - Any other authorizations
 - Permits
 - Ask if they have their MSHA mine number
- Review their monitoring reports
- Have them show you their mine site specific stipulations

5. Reclamation

- Have miner identify areas that they considered reclaimed
- What does the mine plan identify for reclamation "complete"
- Reclamation should be monitored
- Does it meet the Performance Standards if the plan doesn't provide detail
- Know the APMA Reclamation Criteria¹

Reclamation- Initial Review

- Does it match the landform / topography
- What are the slopes of the site
 - If greater than 3:1, consider further BLM review
 - Steeper than 5:1 (20%) may need aggressive revegetation methodology
- Was topsoil placed throughout
 - Fines from settling pond
- Stockpile vegetation/slash replaced
- Use and occupancies removed
- Check for landfills...
- Measure and annotate reclaimed area in Geodatabase
- Lots of photos from different directions

Reclamation- Monitoring

- Is erosion noticeable
- Are slopes stable
- Document vegetation cover
 - Veg % cover should be used to determine vegetative success
 - What's the likelihood of revegetation in 5 years
- Understand and train in stream reclamation
- What about the access reclamation...
- On the ground- identify measures miner must take to stabilize the reclamation... annotate it!