KENSGINGTON MINE
ANNUAL MEETING for
2009
Kensington

Facing North East
Jualin

Mill & Lion’s Head Mountain – Facing North
Safety

- Three years without a Lost Time Accident (LTA)
- Weekly Safety Committee Meetings
- Daily workplace inspections utilizing the 5 point safety card system
- Daily pre-shift equipment inspections
Avalanche Control Program

Sneaky, Gully, Triangle, & Alder Meadow North Avalanche Zones
Avalanche Control Program

Our avalanche hazard reduction relies on:

- Avalanche control
- Warning and Avoidance
- Trained rescue team
Avalanche Control Program

Avalanche control:

• We trigger frequent small avalanches rather than letting the snowpack to build up, resulting in potentially destructive avalanches
Avalanche Control Program

Warning and Avoidance:
We use snowpack and weather observations as well as weather forecasts to generate daily forecast and travel restrictions.
Avalanche Control Program

Rescue program:

- Mine personal is issued and wear Recco belts
- On going rescue training
Avalanche Control Program

And sometimes there is no choice but…
• Unsuitable material was excavated from embankment footprint prior to fill placement
• Graphitic Phyllite was separated & transferred to Pit 3 for Temporary Storage
Dam Construction

• Placed Dental Grout on bedrock
  • Seal-Off Graphitic Phyllite
  • Due to Foundation Material not Meeting the Hardness Criteria
Dam Construction

- Placement of A and A1 Material
- Installation of Pump-Back System
Tailings Conveyance Pipeline Road Construction

- Pioneer of Road to Snow-Slide Gulch
- Installation of Dual-Walled Tailings Conveyance Pipe-Line, Reclalm Pipeline, Power Cable, & Fibre Optic Cable
Graphitic Phyllite Temporary Storage Construction

- Expansion of Existing Bioremediation Cell at Pit 3 for Storage of Graphitic Phyllite
- Water collected on underliner in cell and conveyed to sump
- Collected water transported to temporary package water treatment plant at TTF for treatment
Dorm and KDR Construction

- Construction of 120 person dorm facility
- Construction of a New Kitchen/Dining facility with Snow-Shed Roof
Mining Activities - New Equipment Fleet

Most equipment delivered 1Q 2010 and in use.

- Cat 45 ton Haul Trucks
- Cat 7 and 3 yard Loaders
- Drills
  - Atlas Copco 2 boom jumbo drills
  - Atlas Copco Simba longhole drill
  - Cubex longhole drill
- Support Equipment
  - Boltec and McLean rock bolters
  - BTI ANFO Powder Truck
  - BTI Lube Truck
  - BTI Flatbed Crane Truck
7 yard loader being prepped prior to shipment.
45 ton UG haul truck awaiting shipment.
AMEC, 2009

• Using a new Coeur block model, AMEC developed a new mining plan
• A Cut Off Grade (COG) of .17 opt resulted in new mining geometries, stope shapes, and reserves.

<table>
<thead>
<tr>
<th>Mineral Reserves</th>
<th>Tons (short)</th>
<th>Grade (Au oz/ton)</th>
<th>Contained Ounces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proven</td>
<td>199,000</td>
<td>0.38</td>
<td>76,000</td>
</tr>
<tr>
<td>Probable</td>
<td>5,301,000</td>
<td>0.26</td>
<td>1,402,000</td>
</tr>
<tr>
<td>Total</td>
<td>5,500,000</td>
<td>0.27</td>
<td>1,478,000</td>
</tr>
</tbody>
</table>

Mineral Reserves have been calculated using a price of $750/oz Au and Au cutoff of 0.17opt.
Total ore mining dilution is 20.6% Mining recovery is 97%
Existing and proposed development with previous COG stope shapes.
Existing and proposed development with .17 COG stope shapes.
Mine Operations Activities in 2009

Mine Development

• Limited work underground
• No ore production
• Focused on design of infrastructure projects
  • Underground maintenance facility
  • Upgraded ventilation system
  • Underground fueling station and powder magazines
• Diamond drilling
  • 71 holes totaling 5,520 ft of stope definition drilling UG
  • 14 holes totaling 4,086 ft at new Kimberly vein
Treatment Plant Performance

Operations

- Tod Thurber – Supervisor
- Rick Saulnier – Sr. Operator
- Larry Akaran – Operator
- Phil Walker - Operator
- Brent McEwen – Operator
- John Ashenfelter – Operator
- Clark Mondich – Operator
- Curt Jones – Sr. Operator
- Gary Barnette – Sr. Operator
Comet Mine Water Treatment Plant Performance

- Approximately 438 Million Gallons Treated without a Permit Threshold Exceedence

- One Permit Threshold Exceedence in 2009
  - Toxicity Exceedence
  - No Cause of Elevated Toxicity could be Identified During Investigation
  - Conducted Accelerated Testing: Four consecutive Toxicity Tests without an Exceedence
Temporary Package Water Treatment Plant at TTF

- Rotating Cylinder Treatment System (RCTS)
- Lime/Flocculant Addition
- Automated System
Plant Performance

• Potable Water System operated without a Water Quality Exceedence in 2009

• Sewer Treatment Plant operated without a Permit Exceedence in 2009
Bioremediation Cell Construction

- Treatment of hydrocarbon contaminated soils
- Diesel Contaminated Soil placed into cell in late 2008
- Analytical results were at acceptable levels in Aug. 2009 and received approval from DEC to remove material in Sept. 2009
Compliance/Permitting

- Several Building Permits – Dorms, KDR, Assay Lab, MWTP Expansion
Compliance/Permitting

- **Air Quality Permit Modification Application**
  - Prepared an application to be consistent with constructed emission units and planned modifications
  - With the proposed ORLs, Kensington will be a minor source

- **Approval of Comet Water Treatment Plant Expansion** – 1500 gpm to 3000 gpm
Compliance/Permitting

- **Update of Storm Water Pollution Prevention Plan (SWPPP)**
  - Revised SWPPP for proposed project modifications
  - Second revision made to be consistent with Multi-Sector General Permit (MSGP) requirements
  - NOI submitted in April 2009

- **TRI Reporting**
  - Implementation of Spreadsheet model developed for site
  - Form R submittals for Ammonia, Naphthalene, 1, 2, 4-Trimethylbenzene, and Xylene
  - Ammonia utilized in generator Selective Catalytic Reduction (SCR) systems
  - Additional chemicals reported as a result of quantity of diesel fuel usage at the site
Environmental Management Plan:

- Comprehensive Plan developed that describes site environmental compliance
- Provided to site managers and department heads
- Rolled-out and Reviewed during weekly environmental committee meetings
  - Lists of Permits and Plans
  - Site Specific Guidelines
  - Waste Management
  - Hazardous Waste & Materials Management
  - Monitoring Requirements
  - Water Quality Data Management
Recycling Program

- Plastic Bottles
- Aluminum Cans
- Office Paper
- Scrap Metal
- Batteries
- Printer Cartridges
- Cardboard
Partial Population of Intelex System

INTELEX Software – further developing the Environmental Management System (EMS)

INTELEX modules include…

- Policy
- Objective and Targets
- Monitoring and Measurement
- Legal and Other Requirements
- Training and Awareness
- Audits
- Document Control
- Meeting Manager
Key Performance Indicators (KPI’s) are monthly monitoring system which provide a way to identify areas for improvement.

- Such as: number of exceedences, training hours, materials recycled etc.

KPI’s: 2008 vs 2009

- Number of permit exceedences – 12 in 2008 & 1 in 2009
- Gallons of Mine Water Treated since last exceedence – 167 MG in 2008 & in 438 MG 2009
- Analytical Results received within timeframe – 84% in 2008 & 91% in 2009
Environmental Key Performance Indicators

- Spills – **20** in 2008 & **9** in 2009
Environmental Committee

Meets Weekly to Discuss
- Compliance and Permitting Issues
- Environmental Management System
- Training
- Key Performance Indicators
- Risk Assessments
- Design and Operating Plans
- Drills and Table Top Exercises
- Incidents of Noncompliance
- Recognition
- Permit and Plan Review
Transportation Plan

**MV Sentinel**

- Primary mode of transportation during 2009 was MV Sentinel (operated by Goldbelt)
- Helicopters still used on an as-needed basis (weather)
Transportation Plan

- Auke Bay departure for marine travel during winter months of 2009
- Yankee Cove during spring/summer/fall 2009
• Marine mammal/vessel encounters to be recorded and reported.
• Mutual agreement of 2-3 wk “eulachon spawning season” during which time:
  • No fueling within Berners Bay.
  • “Marine Observer” to accompany crew vessel.
  • No more than 2-3 vessel trips/day.
  • Vessel speed reduced to 13 knots within bay.
  • Reduce fuel shipments by stocking up on fuel prior to eulachon season.
  • Limit barging of concentrate and shipments of chemicals.
  • Adjust routing to avoid fish congregations.
Marine Mammal Monitoring

- 41 marine mammal surveys were conducted from the m/v Sentinel and 5 from Slate Cove dock between April 13 and May 14, 2009.
- Steller sea lions moved from Benjamin haul-out into Berners Bay and Slate Cove between April 14 and 27.
- Marine mammal activity near Slate Cove increased substantially on April 29 and the “eulachon spawning season” was adopted from April 30 to May 14 when activity declined again.
- A marine observer accompanied the crew vessel on 11 trips during this period. Vessel speed reduced to 13 knots.
- Rafts of 100 sea lions and groups of 20 Harbor seals were observed in Slate Cove. Up to 200 sea lions, 4 humpback whales, 100 Harbor seals and 5 orca were observed in Berners Bay at one time.
- There were no marine mammal encounters in 2009.
Wellness Program

Our Vision

The Coeur Alaska Wellness program will be a valuable and recognized resource for Kensington employees in achieving healthier lifestyles.
Program Overview

- **Personal Wellness Profile – Clinical data and health survey**
  - Awareness allows you to become more proactive about your health and wellness
- **Incentives and Events**
  - Reasons to get involved (Klondike Team)
- **Communication**
  - Stay informed
- **Wellness Program Opportunities**
  - Employees take advantage of our awesome opportunities our program offers.
2009 Water Quality
Water Quality- Summary of QA/QC

QA/QC Monitoring Data Review:

- Field Blind Duplicate Comparison
- Review of Monitoring Data Collected
  - Laboratory Data
  - Field Data
- Variance Analysis Reports
  - Identify Potential Outliers
- Overall Completeness Review
Water Quality - Monitoring Locations

- **Outfalls**
  - 001 (Active)
  - 002 (Planned)
  - 003 (Halted)

- **Receiving Waters**
  - Sherman Creek
  - Slate Creek
  - Johnson Creek
Water Quality - Receiving Waters

In general, monitoring results in 2009 indicate...

• Water quality in the area of the project is very good
• Impact from the project activities is minimal
Project Area receiving waters generally...

- Have peak water temperature in August or Sept.
- Have mildly basic pH
- Are at or near oxygen saturation
- Are generally soft (in most cases <100ppm hardness, excluding SH113 and SH103)
- Contain low levels of sulfate (<10ppm, excluding Sherman Creek)
- Have low concentrations of dissolved metals
- Have seasonal fluctuation of conductivity with peak in winter
Water Quality – Sherman Creek

ALUMINUM, Dissolved

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Sherman Creek

IRON, Dissolved

Sherman Creek

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Johnson Creek

ALUMINUM, Dissolved

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Johnson Creek

IRON, Dissolved

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Slate Creek

ALUMINUM, Dissolved

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Slate Creek

IRON, Dissolved

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality

- Notice of Violation (NOV) received from ADEC in August of 2008 – Closed-out in Nov. 2009
- TTF Package WTP currently conveys treated water to an approved land infiltration system
- Current monitoring at sample site #5 is being conducted under the terms and conditions of the EPA-NOV
Water Quality - Outfall 001

Mine Water Treatment Plant
On the whole, Outfall 001 effluent discharges...

- Follow seasonal cyclic trends for temperature and dissolved oxygen
- Typically have very low levels of turbidity
- Contain total recoverable metals mostly at or only slightly above detection limits
- Are monitored for constituents that are typically well under permitted limits
Water Quality – Outfall 001

TURBIDITY

001 EFFLUENT

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Outfall 001

AMMONIA as N

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Outfall 001

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
COPPER, Total Recoverable

001 EFFLUENT

Cu mg/L

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Outfall 001

IRON, Total Recoverable

Figures from Volume 2: Water Quality 2009 in the NPDES Annual Report
Water Quality – Outfall 002

- Tailings Treatment Facility was not constructed in 2009

- Water Treatment Facility was not constructed in 2009
Water Quality - Field Pictures
Aquatic resource monitoring includes toxicity testing of stream sediment, benthic invertebrate surveys, resident fish population estimates, counts of out-migrating salmon fry and returning adult salmon, analysis of spawning gravel quality, and aquatic vegetation surveys.

Wildlife monitoring conducted around Slate Lakes basin.

Marine mammal monitoring conducted in Berners Bay.

Coyote at Sherman Creek
Lower reaches below barriers are anadromous (used by salmon).
Fine sediment was collected from lower and middle Sherman Creek, lower Slate Creek and lower Johnson Creek in August 2009 prior to construction activity.

10-day whole sediment toxicity tests on the water flea (*Hyalella azteca*), and the midge larvae (*Chironomus tentans*).

Both water flea and midge larvae survival was high in sediment from all sites and not significantly different from controls.

Growth of midge larvae was lower at all sites compared to controls while growth of water flea was lower only at Slate Creek. Levels of cadmium in the sediment were higher at Slate than other sites, but levels were much lower than 2008.

<table>
<thead>
<tr>
<th>Survival %</th>
<th>Chironomus</th>
<th>Hyalella</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Sherman</td>
<td>83.8</td>
<td>91.2</td>
</tr>
<tr>
<td>Middle Sherman</td>
<td>90.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Johnson Creek</td>
<td>95.0</td>
<td>91.2</td>
</tr>
<tr>
<td>Slate Creek</td>
<td>91.2</td>
<td>91.2</td>
</tr>
<tr>
<td>Lab sediment</td>
<td>93.8</td>
<td>86.2</td>
</tr>
<tr>
<td>Sand control</td>
<td>91.2</td>
<td>98.8</td>
</tr>
</tbody>
</table>
ANNUAL INVERTEBRATE MONITORING

• Samples were collected in April/May 2009 prior to construction activity using a fine mesh net with 12x12 inch frame from two reaches of Lower Sherman and Lower Sweeny and one reach near Middle Slate and Middle Johnson.

• The number of EPT taxa, Ephemeroptera (mayflies), Plecoptera (stoneflies) and Trichoptera (caddis flies), was examined as these groups are the most sensitive to pollution.

• Johnson Creek densities were significantly higher than Sherman or Sweeny at over 7,000 invertebrates per m², which is much higher than previous years perhaps due to stable flows and temperature over the winter.

• Diversity was highest at Sherman Creek and lowest at Reach 1 of Sweeny Creek. Slate and Johnson Creeks both had lower diversity due to high numbers of a few dominant species.

• Slate had the most non-EPT taxa such as tiny pea clams and blackflies; lakes upstream increases habitat diversity. Slate had more EPT taxa (pollution sensitive) in 2009 than previous years.
RESIDENT FISH POPULATION

- Snorkeling and electro-fishing surveys were conducted in July and August prior to construction in lower, middle and upper reaches of Sherman, Johnson and Slate Creeks.

- Dolly Varden were found in all stream reaches, while cutthroat trout were only present in the lower stream reaches, below barrier falls.

- Dolly Varden numbers highest in Lower and Middle Johnson and Upper Sherman and Upper Slate. Cutthroat numbers were highest in Lower Slate Creek as in previous years.

- A large number of small Dolly Varden were captured in Upper Slate Creek, which appears to be a nursery and spawning area for the upper lake.

- Dolly numbers were slightly higher in 2009 at Upper Sherman, Lower and Middle Johnson and Middle and Upper Slate Creek than previous years.

- Dolly and Cutthroat condition factor (length/weight ratio) not significantly different from previous years at all sites.
Fyke nets with 1/8 inch mesh used to trap out-migrating pink salmon fry at each creek in April/May. A sample of 150 fry is marked with dye every 3-4 days. Marked fish are released upstream of the trap; The % of marked fish re-captured is used to determine the total number of fry migrating out to sea.

Overall freshwater survival of pink salmon from egg to alevin, even in highly productive streams, commonly reaches only 10-20%. The egg to fry survival rate at Sherman and Slate Creeks was between 18 and 25%, while at Jonson it was between 14 and 19%.

<table>
<thead>
<tr>
<th>Stream</th>
<th>Estimate of outmigrating fry</th>
<th>Estimated number of adult females 2008</th>
<th>Estimated eggs laid</th>
<th>Egg to fry survival rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherman</td>
<td>146,883</td>
<td>392</td>
<td>588-784K</td>
<td>18-25%</td>
</tr>
<tr>
<td>Johnson</td>
<td>1,151,538</td>
<td>3977</td>
<td>5.9-7.9 mil</td>
<td>14-19%</td>
</tr>
<tr>
<td>Slate</td>
<td>349,766</td>
<td>939</td>
<td>1.4-1.9 mil</td>
<td>18-25%</td>
</tr>
</tbody>
</table>
Adult pink salmon were counted weekly in the lower reaches of Sherman, Johnson and Slate Creeks between July 21 and September 20, 2009. In South-East Alaska, even-year pink salmon populations are generally larger than odd-year populations. 2009 had high returns at Johnson and Sherman for an odd year.

Steep waterfalls at each creek restrict salmon spawning area; Sherman Creek has a barrier to fish migration only 360m from the mouth, whereas the Johnson Creek falls are 1.3km from the mouth.

**Number of Pink Salmon 2009:**
- Sherman: 2060
- Johnson: 5,968
- Slate: 837
ANALYSIS of SPAWNING SUBSTRATE

- At each stream, core samples of spawning gravel are passed through sieves to separate into size classes. The volume of gravel in each size class is measured using water displacement. Fine material is measured using Imhoff cones.

- Fine sediment can affect oxygen transport to incubating embryos within the gravel. The coarser the material the higher the survival of salmon embryos. The higher the geometric mean, the better survival of salmon embryos.

- Sherman and Slate had similar gravel composition, while Johnson had smaller gravel. Predicted survival based on gravel composition was 22 to 28% for Sherman and 14 to 17% for Johnson and 10 to 16% for Slate Creeks. Slate Creek had the highest amount of fine material.
A visual survey of instream vegetation was carried out in the lower and middle reaches of Sherman, Johnson, and Slate Creeks in July 2009, prior to construction activity.

Johnson and Slate Creeks have relatively small substrate with very little aquatic vegetation. Periodic high flows in these steep, coastal streams are likely to disturb the substrate and restrict aquatic plant growth.

Lower Sherman Creek has green algae on the substrate. Algae can pose a threat as it can use up oxygen at night, depleting the amount available to fish, but Sherman is fast flowing, cold water with high O2, so this seems unlikely.
Wildlife Monitoring: Slate Lakes

- Terrestrial Wildlife monitoring resumed in September 2009 at start-up of construction activity.
- 21 x 50m transects around the Slate Lakes basin. Monitored weekly for wildlife sign eg. Scat, tracks.
- Motion-sensor cameras also record activity on game trails.
- One of the most significant uses of the area is by Canada geese near Spectacle Lake in summer.
- Moose and bears appeared to frequent the area as Often in 2009 as they did in 2006 and 2007.
- There appears little wildlife use of the area in winter months although a wolverine was sighted in December 2009.
Planned Activities in 2010

• Completion/Start-Up of Tailings Treatment Facility
• Approval of O&M manual
• Issuance of Certificate of Operate dam
• Implementation of Monitoring Requirements associated with dam
Planned Activities in 2010

- Completion/Start-Up of Tailings Conveyance Line
Planned Activities in 2010

Mine Development

• Stope access drifting on multiple levels
• Commence stoping 2Q.
• Begin construction of infrastructure projects
  • Underground maintenance facility
    • Shotcrete, concrete, cranes
  • Upgraded ventilation system
    • Main fans, booster fans, bulkheads, air doors
    • Paste backfill plant UG
• Diamond drilling
  • Continued stope definition drilling
  • Additional exploration drilling on Horrible vein
Mine Development

- Stope access drifting on 0840, 0910, 0990, 1065, and 1140 levels.
- Begin actively mining stopes from 2Q on.
- Extend ramp system to upper portion of ore body.
Paste Plant Excavation

- Current mining face
- Up Ramp
- 850 Level
- Vacuum Pump and Vacuum Disk Filter
- Paste Plant Mixing Chamber
- Cement Silo
- To Jualin Portal
Upgraded Ventilation

Increase from 100 kcfm to 375 kcfm. Intake Jualin exhaust Comet.
850 Level Maintenance Facility

18,000 ft² of workshop, service, and warehouse space. 25 and 10 ton cranes.
Planned Activities in 2010

- Commissioning and Start-Up of Assay Laboratory
- Process Approximately 175 samples/day
Assay Lab Facilities

Sample Prep

Fire Assay

Wet-Chemistry Lab
Planned Activities in 2010

- Construction of Mine Water Treatment Plant Expansion at Comet
- Design of Ammonia/Nitrate Reduction System
Planned Activities in 2010

• Construction of Sewer Treatment Plant Expansion

• Design/Construction of Surface Maintenance Shop/Warehouse

• Integrated Waste Management Permit Application & Updated Reclamation Plan & Cost Estimate (4/2/10)