

Hemlo Operations

Operational Overview

Teck Cominco Limited has a 50% interest in the Hemlo Operations, a gold mining and processing facility located 350 kilometres east of Thunder Bay, Ontario. The operation consists of the Williams Mine (an underground facility with an open pit and mill) and the David Bell Mine (an underground facility). At the end of 2006, the mines employed 525 people. The mines are jointly operated by Teck Cominco and Barrick Gold Corporation. Teck Cominco's share of the site's production in 2006 was 205,000 ounces of gold.

Environmental Highlights

In 2006, the operations continued implementation of the energy management program that was initiated in 2005. The program consists of underground heat recovery systems, underground air system improvements, mill water consumption reduction, mill heat recovery systems and the installation of energy efficient pumps. In 2006, the program realized a 5.7% overall energy consumption reduction compared to 2005. The energy consumption reduction translates into \$640,000 in annual savings at current energy prices.

In 2006, water recycling programs were initiated in order to reduce fresh water use. Use of treated effluent as underground process water at David Bell Mine allowed the operation to decrease intake volumes from Cedar Creek during critical periods.

Development of a formal Environmental Management System was initiated in 2006, and the operations began progressing toward ISO 14001 certification. Spill response training was rolled out and made mandatory for all employees and contractors. Best management practices were developed as a result of the increased awareness, and the operations saw a 50% decrease in the number of reportable spills compared to 2005.

In 2006, Williams and David Bell Mine were recognized as

two of the safest mines in Ontario.



Activity at Hemlo's Horizon Pit

Safety and Health

Employees at Williams Mine and David Bell Mine continued to participate in emergency response training programs held during the year. In 2006, training of a Hazardous Materials Emergency Response team was initiated. A contract was signed with an emergency response company (Newalta) to provide assistance in the event of a major situation at the sites involving hazardous materials.

A Work Well audit was carried out at David Bell Mine in 2006 and the site received a score of 90%. The Ontario Mines and Aggregates Safety and Health Association (MASHA) also conducted an Internal Responsibility System (IRS) audit at both sites.

All employees participated in the Back Care education program in 2006.

Towards Sustainable Mining (TSM) Reporting

This year, the mine completed the Mining Association of Canada (MAC) TSM self-assessments in the four indicator areas. The results of the assessment are found below. Hemlo did not undergo a third-party verification of self-assessment. Note that an overall Level 3 is expected at our facilities.

Indicator	Description	Self-Assessment Level*
External Ou	treach	
1.	Community of interest identification	Level 2
2.	Effective COI engagement and dialogue	Level 1
3.	COI response mechanism	Level 2
4.	Reporting	Level 2
Crisis Mana	gement (Facility)	
1.	Preparedness	Not compliant
2.	Annual review	Not compliant
3.	Training	Not compliant
Crisis Mana	gement (Corporate Office)	
1.	Preparedness	Compliant
2.	Annual review	Compliant
3.	Training	Compliant
Tailings Ma	nagement	
1.	Tailings management policy and commitment	Level 2
2.	Tailings management system	Level 1
3.	Assigned accountability	Level 1
4.	Annual tailings review	Level 1
5.	OMS Manual	Level 2
Energy Use	and GHG Emissions Management	
1.	Energy use management system	Level 1
2.	Energy use reporting system	Level 2
3.	Energy intensity reporting target	Level 2
4.	GHG emissions management system	Level 1
5.	GHG emissions reporting systems	Level 2
6.	GHG emissions reporting performance target	Level 1

^{*} Level 1 indicates "no management system in place" and Level 5 represents "excellence".

Community Sustainability

Hemlo personnel meet regularly with the Town of Marathon, Pic River First Nation and Pic Mobert First Nation to discuss issues of concern. The mine is partnering with Confederation College, Job Connect and two First Nations groups to develop a Heavy Equipment Mechanics apprentice program. Currently, the program has the capacity for four to six people and targets First Nations workers for potential placement in the Hemlo workforce.

The operation employed 60 employees through labour contracts with the Pic River and Pic Mobert First Nations. Regular meetings are held with the First Nations on contract issues and partnership opportunities supporting community development initiatives.

In 2006, Hemlo donated \$195,000 toward various organizations, most notably the Lakeview Community Centre, the Marathon Curling Club and the Toronto Maple Leafs alumni game in Marathon.

Awards

Williams and David Bell Mine have been recognized as two of the safest mines in Ontario and received the following awards in 2006:

- MASHA Award of Excellence for mines with greater than 250 employees at Williams
- MASHA Award of Excellence for mines with less than 250 employees at David Bell
- CIMM J.T. Ryan Award at David Bell Mine



Benefits Provided to Hemlo Full-time, Part-time and Temporary Employees						
	FT	PT	TMP			
Health	yes	yes	yes			
Extended Health/Medical (U.S.)	yes	yes	no			
Dental	yes	yes	no			
Health Spending Account	no	no	no			
Group Travel	no	no	no			
Life	yes	yes	no			
Dependent Life	yes	yes	no			
Employee Optional Life	yes	yes	no			
Spousal Optional Life	yes	yes	no			
AD&D	yes	yes	no			
Employee Optional AD&D	yes	yes	no			
Spousal Optional AD&D	yes	yes	no			
Short-Term Disability	yes	yes	no			
Long-Term Disability	yes	yes	no			
Maternity Leave	yes	yes	no			
Parental Leave	yes	yes	no			
Retirement Plan (pension, RRSP, 401K)	yes	yes	no			

FT = Full-time PT = Part-time TMP = Temporary

	2006	2005	2004
Health & Safety Statistics			
Fatalities	0	0	0
Lost-time injuries	6	3	6
LTI frequency	0.72	0.37	0.71
Severity	12.9	11.8	41.7
Permit Compliance			
Number of excursions	2	0	0
Reportable Spills			
Number	3	6	9
Average Concentrations in Effluent (mg/L)			
Cyanide (permit limit 1.0 mg/L)	0.025	0.013	0.019
Copper (permit limit 0.3 mg/L)	0.018	0.013	0.022
Zinc (permit limit 0.5 mg/L)	0.004	0.022	0.016
Energy Use (Direct and Indirect)			
Electricity (TJ)	961	1,012	1,039
Fuel (TJ)	473	518	539
Energy intensity in product (GJ/oz)	3.50	3.33	3.19
GHG Emissions (Direct)			
CO ₂ equivalents (kt)	32.3	34.7	36.2
Carbon intensity (as CO ₂ e) in product (t/oz)	0.08	0.08	0.07
Production (oz)			
Gold	410,000	460,000	495,000
Recycling			
Total solid materials (tonnes)	250	387	466
Total liquid materials (m³)	179	316	298
Total items counted (count)	271	786	1601
Managed Wastes			
Total waste rock (000 tonnes)	4940	n/a	n/a
Total non-hazardous wastes to landfill (000 tonnes)	4	n/a	n/a
Total tailings volume (000 m³)	4894	n/a	n/a
Water Conservation			
Total groundwater withdrawal (m³/yr)	n/a	n/a	n/a
Total surface water withdrawal (m³/yr)	1,404,485	n/a	n/a
Water sources affected by withdrawal (name)	None	n/a	n/a
Total volume of water recycled/reused (m³/yr)	494,924	n/a	n/a
Total percentage water recycled/reused %	35	n/a	n/a
Reclamation			
Reclaimed land (ha)	171	167	165
Land to be reclaimed (ha)	318	322	293
Trees/shrubs planted (count)	6,000	n/a	n/a

n/a = Not available



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