

APPENDIX 6

VERIFICATION OF ABSENCE

OF

PCB CONTAINING TRANSFORMERS

IN LIGHT BALLASTS



to: Bruce Donald, P.Eng, Reclamation Manager, Teck Cominco Limited
From: Arlene Laudrum, P.Geol., Remediation Supervisor, Polaris Mine Project
Date: November 24, 2004
ref: 40137
re: **Non-PCBs Light Ballasts, Polaris Mine**

This memo is written to confirm that there were no polychlorinated biphenyl (PCB) containing capacitors in the light ballasts in the accommodation complex, auxiliary trailers or buildings that were demolished in 2003 and 2004.

During the Environmental Site Assessment (ESA) conducted by Gartner Lee Limited in 1999 and 2000 the Maintenance Superintendent and the Electrical Superintendent were interviewed and purchase orders for equipment checked with suppliers in order to confirm that there was no PCB containing equipment at the Polaris Mine. The interviews and purchase order reviews indicated that there was no PCB containing equipment on site. In addition, samples were collected and analyzed for PCBs from electrical transformers. The results of the analysis verified that there were no PCB containing electrical transformers on site.

However, no documentation generated during the ESA specifically discusses the absence of PCB containing light ballasts. Therefore, during the final stages of demolition the capacitor nameplates on twenty-seven (27) lamp ballasts from the accommodation complex, auxiliary trailers and outbuilding buildings were documented to confirm that no PCB containing capacitors were present.

The sample set presented in the following table verifies that no ballasts contained PCBs, as based on Environment Canada Environmental Protection Series Report EPS 2/CC/2 (revised) August 1991 entitled *Identification of Lamp Ballasts Containing PCBs*.

Capacitor Manufacture	Date Code	Manufacture Date	Product Label Statement	Interpretation
Advance	08-19-96	August 19, 1996	NO PCB's	Non-PCB is clearly marked on the capacitor. Advance ballasts manufactured from 1979 onwards do not contain PCB capacitors.
Advance	08-19-96	August 19, 1996	NO PCB's	
Alliance Ballasts	1901	January 1991	NO PCB's	
Alliance Ballasts	1901	January 1991	NO PCB's	



Capacitor Manufacture	Date Code	Manufacture Date	Product Label Statement	Interpretation
CGE	0805	May 1980		CGE Ballasts manufactured from March 1978 onwards do not contain PCB capacitors.
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	0805	May 1980		
CGE	1809	September 1981		
CGE	0804	April 1980		
CGE	4812	December 1984		
CGE	5810	October 1985		
CGE	0805	May 1980		
CGE	0801	January 1980		
MagneTek	C 92	March 1992	NO PCB's	Non-PCB is clearly marked on the capacitor. MagneTek ballasts manufactured after July 1980 do not contain PCB capacitors
MagneTek	C 92	March 1992	NO PCB's	
MagneTek	C 92	March 1992	NO PCB's	
MagneTek	C 92	March 1992	NO PCB's	
MagneTek	C 92	March 1992	NO PCB's	
Phillips	?		NO PCB's	Non-PCB is clearly marked on the capacitor.
Sola Ballasts	E95	May 1995		Any ballast manufactured by Solo in 1980 or later does not contain PCBs.
Sola Ballasts	E95	May 1995		

In summary, the samples of light ballasts collected during demolition confirm that no PCB containing capacitors were present at the Polaris Mine site during mine demolition.

Arlene Laudrum, P.Geol.
Senior Geologist
GARTNER LEE LIMITED

AL:gc

APPENDIX 7

PROJECT COST REPORT

POLARIS MINE DECOMMISSIONING, RECLAMATION AND MONITORING COST ESTIMATE
END OF RECLAMATION PHASE COST UPDATE

	BUDGET		Estimate to Complete		End of Project PROJECT COST	
	By Code	Subtotals	By Code	Subtotals	By Code	Subtotals
DEMOLITION & RECLAMATION (BARE COSTS)						
MINE EQUIPMENT REMOVAL						
Hazardous Materials Removal		35,845			853	
Mine Refrigeration Plant		145,525			25,639	
Mobile & Mine Equipment		2,919			12,981	
Remove Salvaged Mine Equipment		20,754			-	
Misc Sub Contract Costs		45,957			28,540	
		\$ 251,000		\$ -		\$ 68,013
MINE ACCESS SEALING						
Seal Mine Portals		60,000			20,992	
		\$ 60,000		\$ -		\$ 20,992
CONCENTRATOR BUILDING						
Miscellaneous Materials		22,092			-	
Mill Equipment Clean-Up - Fuels		16,398			-	
Mill Equipment Clean-Up		99,900			40,613	
Hazardous Materials Removal		151,117			94,553	
Barge Demolition		608,592			443,526	
Misc Process Equipment Demolition & Removal		197,432			183,317	
Misc Sub Contract Costs		88,469			84,794	
		\$ 1,184,000		\$ -		\$ 846,803
CONCENTRATE STORAGE STRUCTURE & EQUIPMENT						
Concentrate Storage Equipment Clean-Up		26,117			1,905	
Conveyors		67,600			8,421	
Concentrate Storage Structure & Equipment		555,283			93,654	
		\$ 649,000		\$ -		\$ 103,980
SHIP LOADER & CONVEYOR						
Conveyors		50,000			24,592	
		\$ 50,000		\$ -		\$ 24,592
DOCK & SHORELINE						
Dock & Shoreline Reclamation		869,000			837,739	
		\$ 869,000		\$ -		\$ 837,739
THICKENER & TAILINGS LINES						
Hazardous Materials Removal		22,577			16,452	
Tailings Thickener		377,423			106,677	
		\$ 400,000		\$ -		\$ 123,129
GARROW LAKE						
Garrow Lake Siphons & Lake Drawdown		120,391			195,965	
Dam/Spillway Modifications		95,467			269,662	
Escalation Allowance		3,142			-	
		\$ 219,000		\$ -		\$ 465,627
CRF PLANT STRUCTURE & EQUIPMENT						
CRF Plant Equipment Clean-Up		7,002			1,040	
CRF Plant Equipment Removal		17,533			9,406	
CRF Plant Buildings Demolition		130,455			23,497	
Misc Sub Contract Costs		11,010			46,766	
		\$ 166,000		\$ -		\$ 80,709
ACCOMMODATION COMPLEX STRUCTURE & EQUIPMENT						
Accommodation Complex Building Demolition		249,000			72,318	
		\$ 249,000		\$ -		\$ 72,318
FUEL STORAGE & HANDLING EQUIPMENT						
Miscellaneous Materials		3,681			4,904	
Purge & Decommission Fuel Tanks		53,404			341,959	
Hazardous Materials Removal		50,645			547,319	
Fuel Pumping & Distribution Systems		87,270			11,173	
		\$ 195,000		\$ -		\$ 905,355
BUILDINGS & CONTAINERS						
Miscellaneous Materials		1,323			-	
Misc Warehouse / Shipping Equipment		1,221			3,292	
Misc Buildings Demolition		250,456			100,053	
		\$ 253,000		\$ -		\$ 103,345
MISC CONTRACTOR LABOUR						
Unallocated Labour		133,000			2,310	
		\$ 133,000		\$ -		\$ 2,310
GENERAL SITE GRADING						
Hazardous Materials Removal		44,719			90,114	
General Site Grading & Reclamation		7,129	200,000		702,089	
Escalation Allowance		4,152			-	
		\$ 56,000		\$ 200,000		\$ 792,203

POLARIS MINE DECOMMISSIONING, RECLAMATION AND MONITORING COST ESTIMATE
END OF RECLAMATION PHASE COST UPDATE

	BUDGET		Estimate to Complete		End of Project PROJECT COST	
	By Code	Subtotals	By Code	Subtotals	By Code	Subtotals
LANDFILL RECLAMATION						
Landfill Reclamation	432,000				821,746	
		\$ 432,000		\$ -		\$ 821,746
CONTAMINATED SOILS - CLEANUP						
Metals & Hydrocarbon Contaminated Soils Cleanup & Disposal	366,623				2,627,104	
Hydrocarbon Contaminated Soils (By Polaris)	6,097				13,131	
Metals Contaminated Soils (By Polaris)	173,605				52,382	
U/G Handling & Disposal Of Contaminated Soils	48,675				1,012,154	
		\$ 595,000		\$ -		\$ 3,704,771
QUARRIES & MINE SURFACE RECLAMATION (EARTHWORK)						
Backfill & Re-Contouring	263,000				273,711	
		\$ 263,000		\$ -		\$ 273,711
MISC. DEMOLITION & CLEAN-UP						
Misc Unallocated Clean-Up / Demo	380,000				-	
		\$ 380,000		\$ -		\$ -
EQUIPMENT PURCHASE/RENTAL						
Contractor Equipment Rental	5,274,900				5,216,572	
Contractor Misc Equipment Purchase	719,407				432,906	
Escalation Allowance	59,693				-	
		\$ 6,054,000		\$ -		\$ 5,649,478
MISC. SERVICES & SUPPLIES						
Misc Purchased Materials / Supplies	235,333				536,124	
Escalation Allowance	19,667				-	
		\$ 255,000		\$ -		\$ 536,124
FUEL						
Fuel Supply	3,294,536				4,216,186	
Fuel Taxes (Heating & Power Generation)	68,677				-	
Fuel Taxes (Equipment)	467,343				713,101	
Escalation Allowance	157,444				-	
		\$ 3,988,000		\$ -		\$ 4,929,287
MAINTENANCE OF EQUIPMENT & FACILITIES						
Mobile Equip Maintenance	1,296,759				7,682,560	
Building Maintenance	506,923				2,136,535	
Escalation Allowance	101,318				-	
		\$ 1,905,000		\$ -		\$ 9,819,095
PRE - PURCHASED EQUIPMENT (BY COMINCO)						
Construction Equipment - Purchase (By Owner)	541,000				893,766	
		\$ 541,000		\$ -		\$ 893,766
CONTRACTOR'S FIELD SUPPORT & SUPPLIES						
TRANSPORTATION (SHIPPING)						
Packing & Preparation	85,326				-	
Shipping Costs	948,661				3,411,970	
Escalation Allowance	78,013				-	
		\$ 1,112,000		\$ -		\$ 3,411,970
CONTRACTOR MOB, DEMOB & SUPERVISION						
Contractor Mob/Demob	61,883				208,747	
Contractor Supervisory/Admin Personnel	2,127,339				3,758,445	
Safety Services & Supplies	36,000				521,604	
Misc Temporary Services / Modifications	223,824				1,007,843	
Escalation Allowance	13,954				-	
		\$ 2,463,000		\$ -		\$ 5,496,639
MISC. SERVICES & SUPPLIES						
Communications & TV	374,000				256,412	
Escalation Allowance	31,000				-	
		\$ 405,000		\$ -		\$ 256,412
ACCOMODATIONS						
Catering	1,487,166				2,153,968	
Escalation Allowance	122,834				-	
		\$ 1,610,000		\$ -		\$ 2,153,968
TRAVEL & PERSONNEL						
Travel (Airlines & Expenses)	1,552,881				4,683,561	
Travel Premium - Revised Rotation Schedule	1,072,773				-	
Misc Personnel Transport	72,274				391,547	
Escalation Allowance	575,072				-	
		\$ 3,273,000		\$ -		\$ 5,075,108

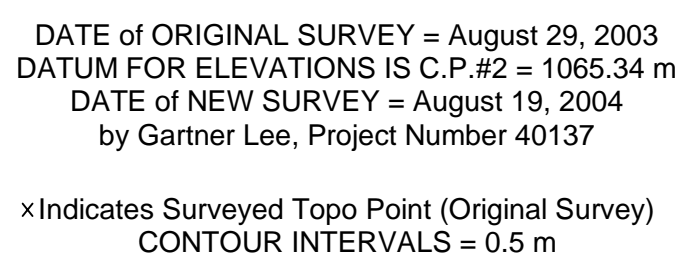
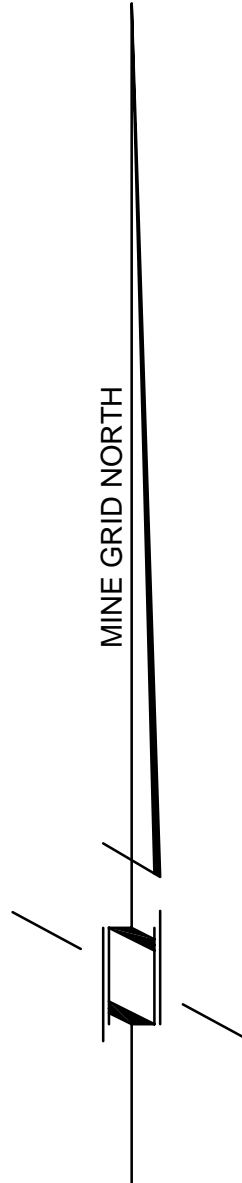
POLARIS MINE DECOMMISSIONING, RECLAMATION AND MONITORING COST ESTIMATE


END OF RECLAMATION PHASE COST UPDATE

	BUDGET		Estimate to Complete		End of Project PROJECT COST	
	By Code	Subtotals	By Code	Subtotals	By Code	Subtotals
CONTRACTOR INDIRECTS						
HO MOB & DEMOB SUPPORT						
Mob & Demob	1,912,000				1,912,376	
		\$ 1,912,000		\$ -		\$ 1,912,376
CONTRACTOR MANAGEMENT SUPPORT						
Personnel	3,928,932				3,928,932	
Safety & First Aid Personnel to Provide Overlap	184,068				183,644	
		\$ 4,113,000		\$ -		\$ 4,112,576
OTHER CONTRACTOR INDIRECTS						
Contractor's General Indirects	4,952,000				7,470,401	
		\$ 4,952,000		\$ -		\$ 7,470,401
ENGINEERING / PROJECT MANAGEMENT						
ENVIRONMENTAL SITE ASSESSMENT						
Environmental Consultants - Site Assessment	275,787				354,711	
Site Assessment - Unallocated	207,874				105,263	
Escalation Allowance	2,339				-	
		\$ 486,000		\$ -		\$ 459,974
CLOSURE PLAN						
Environmental Consultants - Closure Plan	415,772				372,272	
Escalation Allowance	2,228				-	
		\$ 418,000		\$ -		\$ 372,272
ENGINEERING / SPECIAL CONSULTANTS						
Design Consultants - Dock / Loadout	1,316				1,320	
Design Consultants - Tailings / Garrow Lake	3,520				3,515	
Design Consultants - Dock / Loadout	79,684				65,354	
Design Consultants - Tailings / Garrow Lake	54,780				45,328	
Sitework & Demolition Procedures - Design Services	18,300				46,825	
Escalation Allowance	2,400				-	
		\$ 160,000		\$ -		\$ 162,342
PROJECT MANAGEMENT CONSULTANT (HO STAFF)						
Project Management - Salaries	411,069				1,289,847	
Project Management - Reimb Expenses	100,000				85,492	
Escalation Allowance	31,931				-	
		\$ 543,000		\$ -		\$ 1,375,339
CONSTRUCTION MANAGEMENT (FIELD STAFF)						
Construction Management - Salaries	2,142,878				1,915,004	
Escalation Allowance	179,122				-	
		\$ 2,322,000		\$ -		\$ 1,915,004
ENVIRONMENTAL TESTING AND SAMPLING						
Environmental Reclamation Supervision - Staff	337,123				1,038,747	
Escalation Allowance	29,550				-	
Environmental Reclamation Supervision - Testing	330,000				171,498	
Additional Sampling and Consultant Services (MMER)	0				354,386	
Escalation Allowance	26,327				-	
		\$ 723,000		\$ -		\$ 1,564,631
OWNER'S COSTS						
SALARIES & EXPENSES						
Teck Cominco HO Proj Mgmnt (Staff Lab)	374,631				476,911	
Teck Cominco HO Proj Mgmnt (Misc Material & Exp)	199,149				221,031	
Escalation Allowance	34,220				-	
		\$ 608,000		\$ -		\$ 697,942
OVERHEAD / HO SUPPORT						
Land Leases, Licences	175,000				96,979	
Miscellaneous Permits	45,000				16,889	
Insurance	445,900				319,459	
Property Taxes	495,000				180,412	
Home Office General Admin (Labour & Exp)	722,384				16,700	
Public Relations	74,292				58,718	
Legal	57,540				48,421	
Escalation Allowance	168,560				-	
Misc Owner's Overhead	6,324				13,882	
		\$ 2,190,000		\$ -		\$ 751,460
GENERAL ADMIN						
Closure Management - Polaris Personnel	54,000				-	
Escalation Allowance	2,880				-	
Closure Wrap Up	5,120				-	
		\$ 62,000		\$ -		\$ -
POST RECLAMATION COSTS (2005 - 2011)						
SITE MONITORING AND HOLDING COSTS						
Annual Post Closure Environmental Monitoring (2005 to 2011)	510,000		510,000		510,000	
Final Sampling Program, Data Evaluation and Reporting in 2011	160,000		160,000		160,000	
Land Lease/Licence costs from 2005 to 2011	126,000		126,000		126,000	
Property Taxes - 2005 to 2011	70,000		70,000		70,000	
Escalation Allowance	135,000		135,000		135,000	
		\$ 1,001,000		\$ 1,001,000		\$ 1,001,000
UNALLOCATED						
Uncoded Forecast Cost Adjustments (Net)	-		-		-	
		\$ -		\$ -		\$ -
TOTAL DECOMMISSIONING / RECLAMATION & MONITORING COSTS		\$ 47,500,000		\$ 1,201,000		\$ 69,264,507

APPENDIX 8

ANNUAL SUBSIDENCE SURVEY



DATE		REVISONS		DW/CK	
Jan. 04/05		Added Survey Data by Gartner Lee		TT/CT	
 <div> <p>Edmonton (780) 456-8555 Calgary (403) 566-5255 Grande Prairie (780) 339-5322 Regina (403) 562-5272 Regina (306) 566-9837 Port St John (259) 556-7757</p> <p>Focus Surveys A DIVISION OF THE FOCUS CORPORATION LTD.</p> </div>					
Drawn by: TT Date: January 04, 2005 Job: 322789-00 Dwg: 322789-01-topo.dwg		Chkd by: CT Scale: 1:1000 FILE NO. Sheet 1 of 1			

APPENDIX 9

CLARIFICATION OF REMEDIATION

OF CONTAMINATED SOIL

AT THE

CONCENTRATE STORAGE SHED



to: Bruce Donald, P.Eng, Reclamation Manager, Teck Cominco Limited
from: Arlene Laudrum, P.Geol., Remediation Supervisor, Polaris Mine Project
date: January 9, 2006
ref: 50063
re: **Request for Clarification of Remediation of Contaminated Soil at the Polaris Mine's former Concentrate Storage Shed**

Further to the Nunavut Water Board ("NWB") and Indian and Northern Affairs Canada ("INAC") letter dated June 2, 2004 reviewing the Teck Cominco Limited's (the "Licensee") 3rd and 4th Quarter Reports, in which clarification of the following issue was requested:

- The estimated quantity of concentrate remaining in the footprint, its potential mobility, proximity to the ocean and toxicity concerns.
- The approach to monitoring the site post-closure.

The former Concentrate Storage Shed area was located south of the Process Barge and shiploading Dock. The building was demolished in August 2003. Removal of soil impacted with the lead and zinc concentrate commenced thereafter, with the soil beneath the footprint of the former Concentrate Storage Shed being excavated in 2003. The area remediated in 2003 was roughly 20 000 m². Approximately 8 000 m² or 40% of this area was excavated to expose fractured limestone bedrock.

Sampling of the soil remaining within the fractured bedrock revealed that the remedial excavation method used had resulted in lead and zinc concentrate dust blending with the underlying soil and infiltrating the rock. Lead concentrations obtained from composite floor samples collected across the area of bedrock ranged from 221 mg/kg to 23 300 mg/kg and zinc concentrations ranged from 1 290 mg/kg to 34 100 mg/kg.

Estimated Quantity of Concentrate Remaining

Confirmation soil samples collected from the residual soil remaining within the fractured bedrock exceeded the Polaris Mine Soil Quality Remediation Objectives (SQROs) of 2 000 mg/kg lead and 10 000 mg/kg zinc for approximately 70% of the exposed rock area, or some 5 500 m². The amount of residual soil remaining within the fractured bedrock varies throughout this area. A maximum of 10 cm of residual soils remained in sporadic locations over and within the bedrock. Based on this maximum depth, and ignoring the fact that the presence of residual soil was sporadic, it is estimated that there remains no more than 550 m³ of soil impacted with lead and zinc concentrate dust that exceeds the SQROs.



Potential Mobility

The contaminated soil has been isolated under a durable cover of more than 0.5 m in thickness. The cover constructed in 2003 was composed of native gravels with a suitable gradation to resist erosion from wind and surficial runoff.

In 2004, the hillside upslope of the former Concentrate Storage Shed was recontoured to inhibit erosion across the former Concentrate Storage Shed footprint and to blend in the slope with the shoreline. This recontouring resulted in additional fill being placed over the areas with the higher residual concentrations of lead and zinc in the soil. These areas were adjacent to the former east wall of the Concentrate Storage Shed.

Proximity to the Ocean.

The area with soil concentrations exceeding the SQROs is greater than 100 metres from the ocean. Excavation of the remaining contaminated soil along the south shore surrounding the Concentrate Storage Shed was completed to meet the Polaris Mine SQROs by July 2004 and is reported on in the South Shore close-out report.

Post Closure Monitoring

It is recommended that physical stability of the soil cover in this area be included in the annual site geotechnical inspection to ensure that any erosion of the cover is identified. The area being discussed is relatively flat, therefore the potential for erosion is considered minimal. If monitoring were to identify any signs of erosion Teck Cominco has indicated it would undertake repairs and upgrade the cover of the affected area.

To confirm that there is no trend of increasing lead and zinc concentrations in the soil cover over time, it is also recommended that soil samples be collected at several locations at the area being discussed on an annual basis during the closure-monitoring period. Teck Cominco has indicated that mitigation measures will be undertaken should the metal concentrations be increasing.

In summary, the volume of soil that exceeds the SQROs is less than 550 m³. A small volume considering the extensive remediation activities undertaken at the Polaris Mine site. To reduce the potential for the residual zone of contamination to pose a threat to the environment it has been buried under a durable cover more than 0.5 m in thickness and the area has been recontoured to inhibit erosion of the cover. In addition the zone of contamination is greater than 100 m from the ocean boundary.

AL:al