September 27, 2005

Tom Chapple
Director – Air Quality
Alaska Department of Environmental Conservation
Division of Air and Water Quality
555 Cordova St.
Anchorage Alaska 99501

RE: Red Dog Fugitive Dust Update No. 2 – 3rd Quarter 2005

Dear Mr. Chapple:

Please find enclosed Teck Cominco Alaska's (TCAK), Red Dog Mine Fugitive Dust Quarterly Update Report as described in Section 6 of the Memorandum of Understanding between the Alaska Department of Environmental Conservation (ADEC) and TCAK. The report covers the period of July through September 2005.

Memorandum of Understanding
ADEC and TCAK have agreed upon the language within the MOU. As of September 21st the final signatures were being obtained to enter the document into effect.

Communications
During a September site inspection and onsite work associated with development of the Solid Waste Permit for the Red Dog Mine, the State of Alaska large mine project team was given a briefing on the status of the mine fugitive dust issue. Following the presentation discussions focused on how best to incorporate the fugitive dust impacts, associated activities, and findings within the Solid Waste Permit and Reclamation Plan.

1. Studies

Snow Drift Sampling
In April 2005 a snow sampling program was conducted. Snow samples were taken from drifted and non-drifted areas upwind and downwind of the mine site. The samples were analyzed for lead and zinc concentration. The report *Fugitive Dust Accumulation in Drifted Snow at the Red Dog Mine, Winter 2004- 2005* detailing the sampling program and results has been attached.

Tundra "Soil" Sampling
No activity during the quarter.

Particle Fate Analysis
The study proposal to determine the fate of the mineralized fugitive dust in the tundra has been reviewed and approved by TCAK. Samples have been collected in anticipation of proceeding with the program, and to ensure collection prior to freezing conditions. A study plan will be developed and submitted as per the MOU.

2. Ambient and Fugitive Monitoring

Total Suspended Particulate Ambient Air Monitoring
The Total Suspended Particulate (TSP), lead and zinc monitoring program using R&P 1400AB TEOM ambient air monitors continued at the Tailings Dam and PAC monitoring/sampling locations. The measurement of TSP (dust) is conducted continuously at the two locations. The TEOM also performs sample collection for the analysis of lead and zinc contained within the dust particles. At the PAC location the lead and zinc sample frequency is every other day. On September 19, 2005, at the request of ADEC, the Tailings Dam site lead and zinc sampling schedule was changed from an every sixth day to an every other day sampling schedule, matching the schedule of the PAC site.

Analytical lead and zinc results through the end of the second quarter of 2005 are complete. A review of the data determined that a calculation error had been made in the lead results for March and April 2005 reported in the last quarterly report. The corrected lead concentration average, minimum, and maximum for the first and second quarters of 2005 are provided in Table-1. An annual report detailing the TSP, lead, and zinc results from the PAC and Tailings Dam sites, for the 2005 monitoring period, will be prepared and submitted with the First Quarter 2006 Update report.

Table-1
Red Dog Mine
Quarterly TSP Lead Concentration

	PAC TEOM Site			Tailings Dam TEOM Site		
	Average ($\mu g/m^3$)	Minimum ($\mu g/m^3$)	Maximum ($\mu g/m^3$)	Average ($\mu g/m^3$)	Minimum ($\mu g/m^3$)	Maximum ($\mu g/m^3$)
1st Quarter 2005	0.7	0.07	2.4	0.3	0.07	0.8
2nd Quarter 2005	0.6	0.02	2.4	0.2	0.02	0.5

A study plan for the comparison of the Total Suspended Particulate collection efficiency of an R&P 1440AB TEOM compared to and a Wedding Hi-Vol Particulate Monitor was submitted on July 23, 2005. The Hi-Vol sampler is the federal reference method for

measuring TSP and lead in TSP. The program is designed to document the comparability of the TEOM to a Hi-Vol sampler. Simultaneous monitoring began on August 3, 2005 and will continue thru October 7, 2005. A report detailing the results will be prepared and submitted with the 4th Quarter 2005 Update report.

Vegetation Monitoring
Requests for proposal were submitted to several bidders. The deadline for proposal submittal was September 21st. Currently the proposals that were received are undergoing in-house review.

3. Engineered Controls

Gyratory and Jaw Crusher Dump Pocket Baghouses
TCAK made a self imposed commitment to add additional dust control to the two primary crusher dump pockets (gyratory and jaw). In late June TCAK submitted a Pollution Control Project (PCP) Notification. Unfortunately, on June 24, 2005 the United States Court of Appeals ruled that EPA lacked the authority to create PCP exemptions and therefore the applicable Federal regulations were vacated. Subsequently, in early July, TCAK submitted a minor air permit application for the baghouse project. A preliminary permit was issued by ADEC, for which the comment period closes on September 29th. Assuming a final permit is issued, construction of the baghouse will commence in October. The necessary materials and components for the project are on the last freight barge of the season, which is currently due to arrive at the DMTS port facility on October 7th.

Coarse Ore Stockpile Building
The internal engineering review of the proposed improvements for dust control within the Coarse Ore Stockpile building has been completed. Presently, detailed engineering for the related design is in progress.

If implemented a final design and material purchase would be completed targeting shipment during the 2006 season with an anticipated construction schedule in early fall 2006. TCAK recognizes a minor air permit modification would have to be obtained for the proposed project, prior to construction, and would make every effort to submit an application promptly to allow sufficient time for permit issuance.

Mine CSB/Truck Loading Facility Fugitive Dust Reduction Review
A test plan to determine the feasibility of using a baghouse dust collection system in the Mine Concentrate Storage building (CSB) has been reviewed by TCAK and approved for implementation. The purpose of the plan is to determine the feasibility of operating a baghouse with the high humidity and extreme temperature variability inside the Mine CSB. The program planned is installation of a small prototype cartridge style baghouse within the Mine CSB (will exhaust within the building). The system will be operated,

monitored, and evaluated during the winter and spring in order to evaluate system performance.

Additionally, a complementary program has been implemented which measures the temperature and relative humidity at five different locations within the Mine CSB at regular intervals (currently set at 15-minutes). The data will further aid in the evaluation of the dust collection system.

4. Source Apportionment and Particle Deposition Modeling

Source Contribution and Modeling Plan

On September 23rd TCAK submitted for discussion and review, a draft source contribution and modeling plan titled *"Protocol for Evaluation of Fugitive Dust Sources of Lead and Zinc at Red Dog Mine"*. TCAK is presently assembling historic and current operational data and materials to aid in conducting the proposed work.

5. Measurement of Improvement

Mine CSB Truck Loading Dust Control Evaluation

During the summer of 2004 a dust control system was installed within the Mine CSB concentrate truck loading drive through bay. To determine the effectiveness of the system a program was developed to evaluate the conditions before and after the installation. A 50% reduction was observed in the pre verses post dust control system installation. The report *Red Dog Mine Concentrate Storage Building Truck Loading Drive-through Dust Control System Assessment* detailing the sampling program and results has been attached.

If you have any questions, concerns, or require any additional information regarding this report, please contact Mr. Jim Kulas at 907-426-9129 / jim.kulas@teckcominco.com or Mr. Wayne Hall at 907-426-9259 / wayne.hall@teckcominco.com.

Sincerely,
Teck Cominco Alaska Incorporated

R. G. Scott
General Manager