TECK RESOURCES LIMITED – LEGACY PROPERTIES
SÄ DENA HES MINE
DECOMMISSIONING AND RECLAMATION

MILL DISMANTLING AND DECOMMISSIONING SUMMARY REPORT

Submitted to:

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Submitted by:

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August 2015
TE133102

August 11, 2015

Teck Resources Limited
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Attn: Mr. Gerry Murdoch
Project Manager, Legacy Properties

Re: Sä Dena Hes Mine, Yukon Territory
Decommissioning and Reclamation Activities
Mill Dismantling and Decommissioning Summary Report

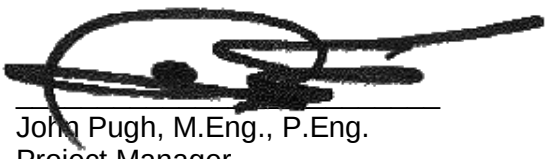
Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited (Amec Foster Wheeler), has prepared this report to outline the 2014 Mill Dismantling and Decommissioning activities completed by the purchaser, JDS Energy and Mining Inc., as part of the overall Sä Dena Hes Mine closure, at the Sä Dena Hes Mine, near Watson Lake, Yukon Territory.

The report provides a description of the dismantling and decommissioning activities completed in 2014. The activities were monitored by the Amec Foster Wheeler site team.

We trust this report is satisfactory and meets with your approval. If you have any questions or comments regarding the information contained herein, please contact the undersigned.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure,
a Division of Amec Foster Wheeler Americas Ltd.



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EXECUTIVE SUMMARY

The 2014 dismantling and demolition activities conducted by JDS Energy and Mining Inc. (JDS) and their sub-contractors as part of the overall Sä Dena Hes (SDH) Mine Decommissioning and Reclamation project were completed between April 9 and August 2, 2014. Amec Foster Wheeler provided demolition site inspection health, safety and environmental monitoring services for the work throughout this period. This report contains a description of the mill dismantling and decommissioning activities completed.

Key dismantling and decommissioning activities included:

- Hazardous materials removal
- Electrical decommissioning
- Removal of assets and equipment
- Demolition of the Warehouse/Dry/Lab, Powerhouse and outbuildings
- Dismantling of the Crusher, Concentrator and foldaway buildings
- Establishment of new landfill deposition cells to accommodate non-salvaged demolition materials
- Loading and transporting materials off site

Appendix A contains the JDS Mine Buildings Dismantling Plan. Appendix B contains the JDS Health and Safety Plan prepared for the project. Appendix C of this report includes a general site plan and mill infrastructure building layouts (courtesy of Golder Associates Ltd.). Appendix D includes select photographs from the dismantling activities.

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1.0 INTRODUCTION AND PROJECT BACKGROUND

This report has been issued by Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited (Amec Foster Wheeler), to describe the activities associated with the mill dismantling and decommissioning activities at the Sä Dena Hes (SDH) mine that were completed in 2014. Amec Foster Wheeler has completed this report on behalf of Teck Resources Limited (Teck) by compiling information provided by the Amec Foster Wheeler Demolition Monitors and the Construction Monitors who were on site daily and from information provided by the mill purchaser, JDS Energy and Mining Inc. (JDS), who managed and sel-performed the dismantling and salvage activities.

The SDH property is located close to Yukon's southern boundary with British Columbia, approximately 70 km by road from the Town of Watson Lake. The mine site is reached via the Robert Campbell Highway, north of Watson Lake. At approximately km 47 of the Robert Campbell Highway, a 24 km access road leads to the mill site.

Mining at the SDH Mine commenced in September 1991 and ceased in December 1992. During the 16 months of production, approximately 700,000 tonnes of ore were mined and processed. Approximately 120,000 tonnes of zinc concentrates were produced at a grade of 59% zinc and 54,000 tonnes of lead concentrates at a grade of 77% lead. Production ceased in 1992 due to a downturn in metal prices. After that time both the mining and mill operations ceased and the property was placed in a state of care and maintenance. A full-time caretaker resided at the site over the duration of the care and maintenance period, which ended in April 2014.

The SDH Mine Detailed Decommissioning and Reclamation Plan (DDRP), dated March 2013, details the overall closure plan for the SDH mine including the mill and associated infrastructure.

In January 2014, JDS Silver Inc. entered into a Sä Dena Hes Mill and Equipment Sale and Purchase Agreement with Teck for the Mill buildings and associated assets. Further to the purchase agreement, a "Dismantling Contract" was drafted and signed by both parties.

JDS Silver Inc. provided a dismantling plan and schedule which was prepared by Hatch Ltd. (Hatch), "Mine Buildings Dismantling Plan, March 31, 2014" for the dismantling of the Mill and associated infrastructure, which was utilized by JDS as the guidance document for the deconstruction of the infrastructure. The JDS Mine Buildings Dismantling Plan is provided in Appendix A of this document.

Three main buildings at the SDH Mine site were included in the dismantling plan - the Crusher Building, the Power House Building and the Concentrator Building. JDS's intent was to dismantle the buildings and transport all of the infrastructure and components to a new site in British Columbia where the buildings would be reassembled for reuse. The key dismantling activities associated with the project were as follows:

- Mobilization to site
- Hazardous materials review and removal
- Electrical decommissioning
- Removal of assets
- Match marking and templates

- Dismantling of the Concentrator Building
- Dismantling of the Crusher Building and Conveyor Systems
- Dismantling of the Power House Building
- Dismantling of the Warehouse, Dry and Lab Building
- Dismantling and/or demolition of miscellaneous infrastructure
- Transport of material from site
- Demobilization from site

2.0 PROJECT ORGANIZATION

The following Figure 2.1 presents the organizational structure for the Mill dismantling and decommissioning project.

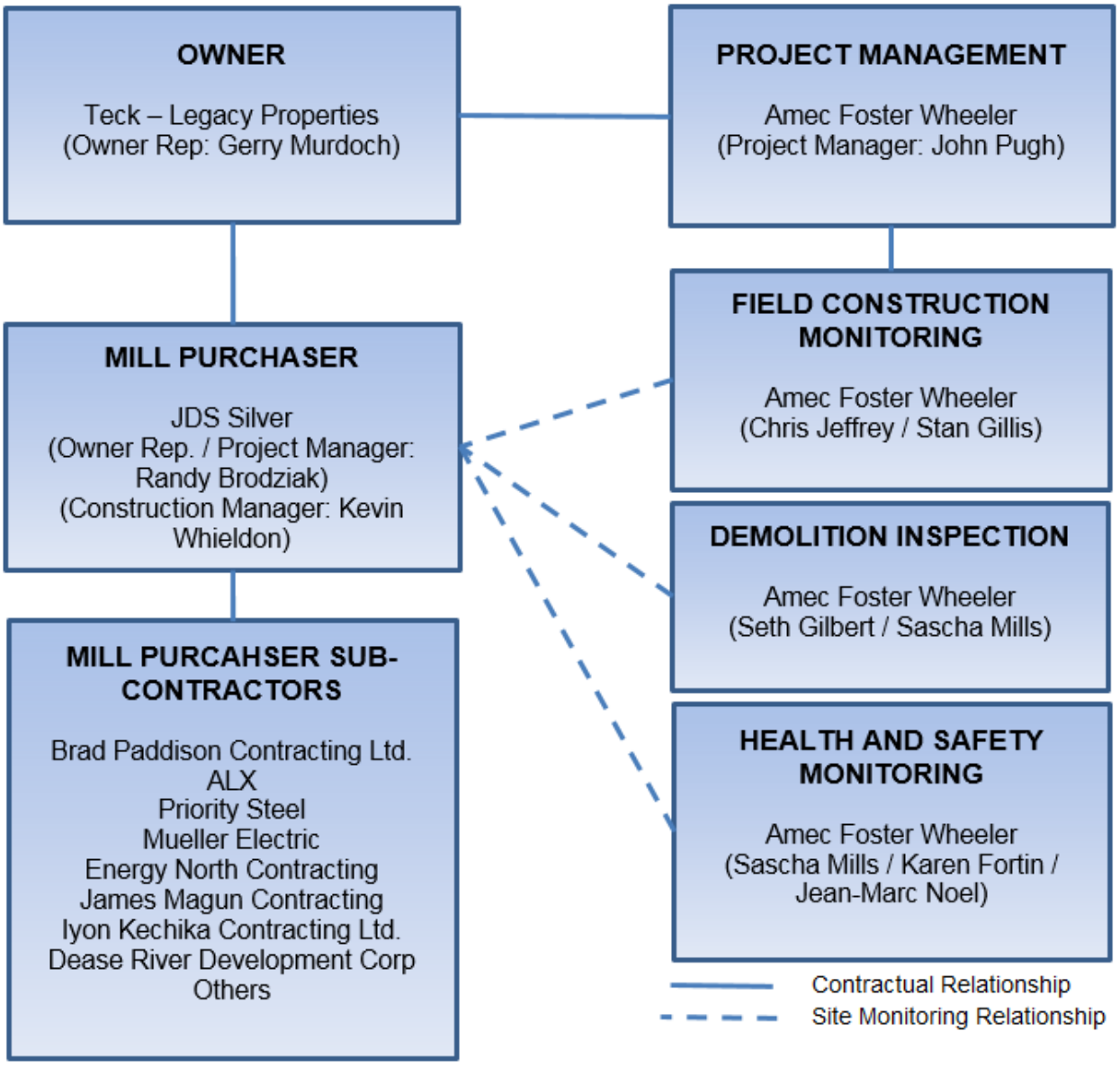


Figure 2.1: Sä Dena Hes Mill Dismantling & Decommissioning Organizational Chart

3.0 SAFETY, HEALTH, AND ENVIRONMENT

A plan titled *Sä Dena Hes Mine, Health and Safety Plan* (JDS, March 2014) was submitted to Teck for approval in March 2014, which outlines the health and safety plan developed for use by JDS and their sub-contractors during the mill dismantling Contract. This document is provided for reference in Appendix B of this document.

The JDS *Health and Safety Plan* (HASP) was developed as a reference source for working on the project but was not to be used to supersede any applicable local, territorial, or federal legislation or the Teck site-specific Health and Safety Plan. At a minimum, all contractor groups on the site are to meet the standards as outlined in the Teck Health and Safety Plan for the site. In the event of discrepancies between the JDS HASP, the Teck Health and Safety Plan, and applicable federal and/or territorial regulations, the most stringent was to apply. The HASP requires all workers, regardless of their direct employment affiliation, to maintain stringent safety standards in the conduct of their work.

The JDS HASP was supported by the JDS Health and Safety Manual, safe operating procedures, forms and project risk assessments.

Over the course of the mill dismantling work, JDS provided a safety representative on site to help ensure worker compliance with HASP procedures and protocols. The JDS safety representative was not on site at all times and would also be tasked with other project work in addition to their role as designated safety representative. The Amec Foster Wheeler Safety, Health and Environment (SHE) Monitor was on-site to observe, document, and address safety, health and environmental concerns noted throughout the dismantling and decommissioning activities.

3.1 First Aid and Site Access/Security

3.1.1 First Aid

Polar Medical was contracted by Amec Foster Wheeler to provide Emergency Medical Response services and front gate security from the hours of 8:00 am – 6:00 pm (regular day shift), Monday through Saturday. Gate security and medical services outside of the regular day shift hours were provided by JDS through Alpha Safety from April 9 to May 7 and then through Dease River Development Corporation (DRDC) from May 12 to July 30. The First Aid Attendants were each equipped with an emergency transportation vehicle. Polar Medical maintained a First Aid room near the main gate. JDS established a First Aid room near their laydown area which was used by attendants from Alpha Safety and DRDC.

3.1.2 Site Inductions

Personnel conducting regularly scheduled work on site were to complete the Teck SDH site induction which was provided by the Amec Foster Wheeler SHE Monitor or the Amec Foster Wheeler Construction Monitor. The total number of worker site inductions completed that were associated with the mill dismantling works was 135. A list of the inductees was reported to Teck on a daily basis and updated induction lists were provided to Teck in weekly SHE reports.

The site induction included details on project scope, corporate and site-specific health and safety policies, communications systems and protocols, personal protective equipment (PPE) requirements, accident/incident reporting procedures, emergency response measures and

procedures, muster points, general site hazards, wildlife awareness, and the Standard Operating Procedure (SOP) for working in a lead dust environment. Following the induction, each employee was required to sign the training log indicating that they understood the information presented and agreed to adhere to site protocols and procedures.

Following the Teck site induction, all workers were required to complete the JDS site-specific orientation, outlining worker responsibilities, review of the JDS HASP, communication of workplace hazards, project-specific Workplace Hazardous Materials Information System (WHMIS), communication systems, protocols for working at height, designated smoking areas, and other work-related items pertaining specifically to the mill dismantling activities. All workers would then sign the JDS site-specific orientation sheet, acknowledging their understanding of the material presented. These records were kept on file by JDS. Amec Foster Wheeler SHE Monitors attended the JDS site-specific orientations.

3.1.3 Visitor Orientation

Personnel who were visiting the site to make deliveries or pick up materials were required to complete the visitor orientation, follow all of the rules for the site, and remain accompanied by a fully inducted site personnel. They were required to wear minimum site PPE which included hard hat, steel toe boots, high-visibility reflective vest or jacket, and safety glasses. The visitor orientation was provided by the front gate security / First Aid staff or by the Amec Foster Wheeler SHE Monitor. Visitors to the site were required to wear all PPE as outlined for the site and remain with the fully inducted worker representative for the duration of their visit. Visitors were also required to sign the Visitor Orientation Sheet, acknowledging their understanding of the rules for the worksite.

3.1.4 Site Access/Security

First Aid Attendants manning the front gate were responsible for controlling access to the site, ensuring the sign in/sign out of workers/visitors and for tracking the number of personnel located on-site. Only personnel with full site inductions were permitted on-site. Visitors were required to be accompanied at all times by an inducted representative of the Contractor they were on-site for. At the end of each day's shift, the main gate was locked once all personnel had signed out. The gate was only opened the following day once the First Aid Attendant arrived to site.

3.2 Wildlife

The project site is situated in an active wildlife area. Consideration for worker safety and the preservation of wildlife during the completion of site activities was a project priority. Amec Foster Wheeler commenced documenting wildlife sightings on May 8 to report changes in movement patterns that may result in potential worker interaction. These changes were reported to site personnel as required to make them aware of potential hazards associated with wildlife.

For the overall site, a total of 17 wildlife sightings were recorded in May, 45 sightings were reported in June and 40 sightings were recorded in July. All workers were notified to carry bear spray at all times and to not become complacent while working outdoors. The importance of ensuring that all waste be secured indoors during the day and removed from site for proper disposal at the end of each day was emphasized on a daily basis through tool box meetings.

An Incident Report (Motor Vehicle Accident) was submitted by JDS when a truck struck two wolves near the km 7 mark of the SDH Main Access Road. Further details are provided in the Contractor Performance section of this report.

An Incident Report (Near Hit) was submitted by JDS and Amec Foster Wheeler as a result of a black bear wandering through the mill area on July 6. The main gate was closed and all workers reported to the JDS muster station with Amec Foster Wheeler employees. The Amec Foster Wheeler SHE Monitor conducted a training session on the use of bear bangers followed by a live demonstration of a bear banger discharge. The bear returned to the work area for a second time later in the day causing another temporary stoppage in work until the bear had left the area.

As a result of the black bear near hit reported on July 6, Amec Foster Wheeler SHE Monitors developed a wildlife training package and accompanying safe work procedure for workers conducting activities on site with special consideration for work in remote locations. A Wildlife Emergency Response Plan was developed and incorporated into the site induction and training with contractors working on site. The introduction of a communication log was implemented for the guard shack to increase communication and awareness of wildlife sightings. Wildlife sightings were logged and communicated to personnel entering the gate. Copies of the wildlife log were provided to Teck in weekly SHE reports.

3.3 Environment

The environment on and around the mill area was monitored and inspected by a number of organizations throughout the dismantling activities.

A total of seven environmental inspections were completed by regulators from the Yukon Department of Energy, Mines and Resources Client Services and Inspections branch. Details of the inspections are discussed in Section 3.5 of this report. It should be noted that the inspections were carried out on a site wide basis and inspections involved documenting and inspecting the other reclamation activities in addition to the mill dismantling activities.

An environmental inspection was conducted by the Liard First Nations Development Corporation (LFNDC) Lands Manager and JDS Management representatives of the Mill area. There were no issues brought forward to Amec Foster Wheeler by LFNDC or JDS following the inspection.

Environmental Monitors from the LFNDC were on site most days sampling water from designated locations. In addition to this daily activity, the LFNDC Monitors were also tasked with observing site activities at all site locations and to bring any issues/concerns to the attention of Amec Foster Wheeler personnel.

Golder Associates Ltd. (Golder) was on site several times during the dismantling activities to undertake various data collection exercises across the site. This included periodic sampling of soil within the footprint of the mill area.

On May 15, 2014, due to the wet weather, JDS was asked to assist with erosion control on site by placing erosion and sediment control fencing in key areas around the mill site footprint. JDS agreed to place a section of silt fence at the bottom of the road that leads from the mill to the Tailings Management Area (TMA). In addition, Teck installed silt fencing along the steep embankments leading to the mill site to assist with erosion control throughout the project area.

There were five spills to the environment during the mill dismantling activities and these are discussed further in Section 3.4.5.8.

3.4 Contractor Safety Performance

The following subsections provide pertinent details on the safety performance of JDS and their subcontractors throughout the mill dismantling activities.

3.4.1 Overall Safety, Health, and Environment Statistics

As part of the project SHE reporting requirements, Amec Foster Wheeler tracked all pertinent safety statistics for Teck. Project SHE statistics associated with the Mill decommissioning were tracked daily by Amec Foster Wheeler using information provided by JDS. Statistics included a tally of personnel hours on site, number of First Nation hours worked on the project site, number of Contractor toolbox meetings, safety meetings and worker hazard analysis exercises. The Amec Foster Wheeler SHE Monitors also recorded and reviewed all incident reports as they were received from the Contractors.

A summary of person-hours worked, First Nations person-hours worked and number of safety meetings is provided in Table 3.1. A summary of the SHE occurrence statistics for the project for JDS and their main sub-contractors (period beginning April 9, 2014 and ending August 16, 2014) is provided in Table 3.2. A complete breakdown of Contractor hours for the overall SDH Mine decommissioning and reclamation project was provided to Teck in the monthly Project Safety Metrics Log.

Table 3.1: JDS Person-Hours and Safety Meeting Summary

Project Safety Aspect	Metric
Total person-hours worked by JDS and all sub-contractors	31,632
Total First Nations person-hours worked by JDS and all sub-contractors	4,064
Number of site inductions conducted with JDS and sub-contractor personnel	135

Table 3.2: JDS and Sub-Contractors - Safety, Health and Environment Occurrences

Type of Occurrence	Contractor					
	JDS*	Iyon	Mueller Electric	BPC	ALX	Priority Steel
Lost Time Incidents	0	0	0	1	0	0
Restricted Work	1	0	0	0	0	0
Medical Aids	0	0	1	0	2	0
First Aid	4	0	1	1	3	0
Near Hits	2	0	0	1	0	0
Property Damage	5	0	0	0	1	0
Motor Vehicle Incidents	1	0	0	0	0	0
Environmental Spills	4	0	0	0	1	0

* JDS is the purchaser of the mill and was the General Contractor sel- performing the mill dismantling operations. Other Contractors listed were working in a sub-contracting capacity to JDS.

The occurrences that form the metrics presented in Table 3.2 are discussed further in Section 3.4.5.

3.4.2 Field Level Hazard Assessments

JDS and their sub-contractors identified/reviewed specific hazards and required mitigation during daily toolbox discussions. The introduction of new work or site-specific conditions often necessitated the use of hazard assessment tools, including field level hazard assessments (FLHA) and job safety analysis (JSA). JDS workers completed a FLHA card daily to identify changing hazards as work progressed. The cards were handed in to JDS at the end of each shift and Amec Foster Wheeler would pick them up from JDS the following day.

3.4.3 Tool Box Meetings

Daily tool box meetings were held within each Contractor group. Amec Foster Wheeler personnel attended the meetings. The meetings identified work related hazards specific to the work being conducted and identified circumstances or conditions that changed from the previous day's activities. All workers were required to sign the tool box meeting to acknowledge their understanding of the SHE items presented during the meeting. Workers were encouraged to identify new hazards that had previously been undetected and to assist with mitigation of hazards. The Amec Foster Wheeler SHE Monitor and the Demolition Monitor were in attendance each day at as many toolbox meetings as they could attend. Often, JDS had multiple sub-contractors on-site who conducted concurrent toolbox meetings.

3.4.4 Health and Safety Meetings

In addition to the daily tool box meetings, a weekly JDS SHE meeting was held with all of the JDS sub-contractors present. The meetings would cover information pertinent to all contracting groups as it related to the site and generally provided detailed information regarding one or two topics.

A Contractor Joint Health and Safety Committee (CJHSC) meeting, hosted by the Amec Foster Wheeler SHE Monitor was held each week throughout the duration of the project. Each General Contractor on the SDH site (including JDS) had at least one representative attend the meeting. The agenda for these meetings generally included a review of the minutes from the previous meeting, followed by a review of incidents and accidents, training information, work activities scheduled for the upcoming week and how it may have impacted other contracting groups on site, and any other new information.

In addition to the regular weekly CJHSC noted above, a monthly Joint Occupational Health and Safety Committee (JOHSC) meeting was held on July 17 in response to an Order received by the Yukon Workers Compensation Health and Safety Board (YWCHSB) to comply with the Yukon Occupational Health and Safety Act and Regulations. The meetings were to be attended by an elected worker representative and were scheduled to review previous accidents or incidents. The JOHSC meetings were scheduled for the third Thursday of each month.

A copy of all of the meeting minutes from JOHSC meetings were appended in the weekly/monthly SHE reports provided to Teck.

3.4.5 SHE Occurrences

Incidents represent situations which have the potential to cause harm to a person or damage equipment, property or the environment. Accidents are incidents which occur and result in harm to a person or damage to equipment or property.

In the event of an incident or accident, a report was completed and filed with Amec Foster Wheeler for submission to Teck. The report was completed by the supervisor or a responsible designate, with assistance from the workers involved. Reports were to be filed with Amec Foster Wheeler SHE personnel as soon as possible.

Certain severe accidents may fit the definition of a "critical injury." Critical injuries require special reporting and investigation was escalated to the YWCHSB. All spill events on-site were reported and documented internally. As a rule, significant spills are to be reported to the appropriate regulatory agency.

A copy of all SHE related reports were retained on site and appended in the daily/weekly/monthly SHE reports provided to Teck.

3.4.5.1 Lost Time Incident

At 10:55 am on June 10, medical attention was required at the Concentrator. A worker fell from an elevated platform above the load-out area of the Concentrator section of the mill building. The piece of ceiling vapour cladding the worker was standing on gave way and the worker fell approximately 8 metres to the concrete floor below. The work site was immediately shutdown while the on-site First Aid responders attended to the injured worker. At 12:20 pm the Watson Lake paramedics arrived onsite and prepared the patient for helicopter evacuation. At 1:24 pm, the worker was evacuated by helicopter to the Watson Lake Hospital. All workers were sent home for the remainder of the day. A stop work order was later issued by YWCHSB (refer to Section 3.5.3 for further information).

3.4.5.2 Restricted Work

On July 17 the YWCHSB issued a temporary stop work order of the SDH project. The stop work order was issued as a result of suspected elevated levels of lead detected in some workers involved in the JDS mill dismantling activities. The stop work order was lifted for Teck-directed reclamation works at approximately 5 pm on July 19, however, the stop work order remained in effect for the mill decommissioning activities until end of day on July 23. Further information on the stop work order is provided in Section 3.5.3.

3.4.5.3 Medical Aids

A total of three medical aids occurred. All were hand related incidents. They were as follows:

- May 7 - Mueller Electric (JDS sub-contractor) worker cut left palm while rigging a transformer for removal. The cut required stitches at the Watson Lake Hospital.
- May 16 – ALX (JDS sub-contractor) worker punctured his hand with a piece of steel from a sling. The incident was not reported until May 17. The worker went to the Watson Lake Hospital on May 17 when the cut became swollen.
- May 17 – ALX (JDS sub-contractor) worker woke up to a finger on his left hand swollen and hot. The worker was unable to recall what had caused the injury and there was no puncture or damage to the skin. The worker went for medical follow-up at the Watson Lake Hospital.

3.4.5.4 First Aids

There were a total of nine first aid incidents that occurred during the mill dismantling activities. All workers were treated on site by the site medic and returned to work following treatment. The first aids were as follows:

- May 4 - Iyon Kechika (JDS sub-contractor) worker - dust in left eye.
- May 5 – Mueller Electric (JDS sub-contractor) electrician - debris in eyes obtained while grinding material.
- May 5 - BPC (JDS sub-contractor) worker - debris in eye from cutting a piece of pipe with a torch.
- May 5 - ALX (JDS sub-contractor) worker - arm pinched between two pieces of pipe.
- May 6 - ALX (JDS sub-contractor) worker - debris in eyes, wind/dust from work site.
- May 9 - Iyon Kechika (JDS sub-contractor) worker - drilling hollow structural steel. The piece of steel spun on the drill and clipped his knee.
- May 19 - ALX (JDS sub-contractor) worker - small puncture on left hand. Worker did not see the metal piece that punctured his hand, worker was wearing gloves.
- June 21 - JDS worker – tripped and fell. A piece of metal he was carrying landed on his chest.
- July 15 - Priority Steel (JDS sub-contractor) worker - debris in the eye.

3.4.5.5 Near Hits

Three near hits were recorded as follows:

- June 2 - BPC (JDS sub-contractor) worker was observed to not be wearing fall arrest PPE. JDS removed the worker from site.
- June 9 - A beam from the concentrator building was rigged to a crane. When engaged to be removed by JDS, it swung the wrong way causing two workers to duck for cover from the swinging beam. Hoisting and rigging was reviewed with all workers.
- July 6 - A near hit report was completed for the site as a result of a black bear wandering around the mill area causing all workers to stop work and report to the JDS muster station until the bear had left the area.

3.4.5.6 Property Damage

A total of six property damage incidents were reported during the Mill dismantling activities. They are as follows:

- May 7 - JDS - Kenworth highway truck dent in grill from chain snapping.
- May 11 - ALX (JDS Subcontractor) caused a small, contained fire at the mill, as a result of hot work activities. A spark from hot work activities ignited a rubber liner in a flotation cell in the process area of the Mill. The fire was extinguished by means of fire extinguishers.
- June 9 – JDS - Loaded excavator bucket swung into idle equipment causing damage to the windshield of the idle piece of equipment.
- June 21 – JDS - Windshield of bulldozer shattered while working at the landfill. While crushing landfilled material a piece of lumber swung up and struck the windshield of the bulldozer.

- July 6 – JDS - A bear caused damage to the JDS work trailer window trying to gain entry.
- July 7 – Priority Steel (JDS Subcontractor) caused a small, contained fire in the water storage tank, as a result of hot work activities. A spark from hot work activities ignited organic material in the bottom of the tank. The fire (mostly smoke) was extinguished with the assistance of a water truck.

3.4.5.7 Motor Vehicle Incidents

There was one motor vehicle incident that occurred in the morning on April 25 when a tractor trailer driving to site via the SDH Main Access Road struck and killed two wolves at the main access road 7 km mark. The Watson Lake Conservation Officer Services Branch was notified and two conservation officers came to site to remove the animal carcasses from the site.

3.4.5.8 Environmental Spills

There were a total of five spills that occurred throughout the mill dismantling activities. None of the environmental spills were reportable to regulatory agencies; however, it is Teck's policy that all spills regardless of the type or quantity of material spilled, be recorded. All spills were remediated immediately, following the Teck spill response procedure. Contaminated materials were later removed to a licensed receiving facility. The spills that occurred are as follows:

- May 9 - Hydraulic oil (approximately 5 litres) was spilled at the south end of the Mill building. The spill was cleaned up immediately.
- May 13 - SAG mill gear wheel lubricant (approximately 0.5 litres) was spilled. The spill was cleaned up immediately.
- May 18 - (1) - Hydraulic fluid (approximately 2 litres) was spilled near the MCC2 building. (2) - Gear oil (approx. 2 litres) was spilled adjacent to the powerhouse between a sea can and building. Both spills were remediated. The contaminated material was moved to the hazardous waste storage area and hauled off-site for disposal near the end of the project. (Note – these were reported as one spill as they occurred on the same day in the same area).
- June 2 – Hydraulic fluid (approximately 2 litres) leaked from a broken hose on the skid steer on the Crusher platform. The spill was remediated.
- June 6 - A lime spill (approximately 3 m^3) was reported however there was no immediate danger to the environment. The lime was covered with a tarp to prevent wind-blown lime around and prevent it from becoming wet. The lime was cleaned up and removed from site.

3.4.5.9 Safety Observations

A number of safety observations were made by the Amec Foster Wheeler SHE Monitor and the Demolition Monitor throughout the mill dismantling activities. In most cases the observations were communicated immediately to the JDS Construction Manager who would then address the issue with the contractors involved. The observations were communicated to Teck through the daily, weekly and monthly SHE reports.

3.5 Government Inspections

A government inspection is the act of a monitoring authority conducting an official review of various criteria (such as work sites, documents/records, and any other assets) that are deemed by the authority to be related to the inspection. The purpose of the inspection is to determine if an organization is complying with the applicable regulations. The inspector examines the criteria and talks with individuals involved. An evaluation report and/or orders to comply with the regulations are issued following such visits.

During the course of the project, government inspections occurred on a regular basis. Table 3.3 below describes the government inspections that occurred during the Mill dismantling and decommissioning project. The table also details whether the visit was planned or unplanned and if the visit resulted in non-compliance orders being issued to the mill purchaser or their sub-contractors. It should be noted that visits from government inspectors typically included visiting the other reclamation activities occurring on site in addition to the activities at the mill site.

Table 3.3: Government Inspections during Mill Dismantling Activities

Date (2014)	Government Department	Inspectors	Reason for the Visit	Planned / Unplanned	Orders Issued
May 7	EMR	Scott Allen, Senior Natural Resources Officer (NRO) Justin Hooper, Mining NRO	Environmental Inspection	Planned	No
May 7	YWCHSB	Ron Ratz, Safety Officer Mike Wadsworth, Safety Officer	Safety Inspection	Unplanned	Yes
May 15	EMR	Scott Allen, Senior NRO	Environmental Inspection	Unplanned	No
May 29	EMR	Justin Hooper, Mining NRO	Environmental Inspection	Planned	No
June 10	YWCHSB	Mike Henney, Safety Officer	Accident Investigation	Planned	Yes
June 20	EMR	Mark Brodhagen, Conservation Officer	Environmental Inspection	Planned	No
July 1	YWCHSB	Bruce Milligan, Director	Safety Inspection	Unplanned	Yes
July 4	YWCHSB	Bruce Milligan, Director	Drop off orders issued from the July 1st Safety Inspection	Planned	Yes
July 8	EMR	Scott Allen, Senior NRO Justin Hooper, Mining NRO	Environmental Inspection	Planned	No
July 9	EMR	Scott Allen, Senior NRO Justin Hooper, Mining NRO	Environmental Inspection	Planned	No
July 11	YWCHSB	Paul Smythe, Safety Officer Mike Wadsworth, Safety Officer Graham Seal-Jones, Safety Officer	Safety Inspection	Planned	Yes
July 17	YWCHSB	Paul Smythe, Safety Officer	No Site Visit - Call to CM.	Unplanned	Yes
July 30	YWCHSB	Paul Smythe, Safety Officer Mike Wadsworth, Safety Officer	Safety Inspection	Unplanned	No

Notes: EMR: Yukon Dept. of Energy, Mines and Resources Client Services and Inspections.
YWCHSB: Yukon Workers' Compensation Health and Safety Board
NRO: Natural Resources Officer

3.5.1 Environmental Inspections

There were a total of six environmental inspections conducted by the Yukon Department of Energy, Mines and Resources during the Mill dismantling activities. Five of the inspections were planned and one was unplanned. There were no environmental orders issued to JDS as a result of these visits. It should be noted that environmental inspections were carried out across the entire site and inspections covered other on-going reclamation activities in addition to the dismantling operations at the mill site.

3.5.2 Yukon Workplace Health and Safety Board Inspections

There were a total of six workplace health and safety inspections conducted during the Mill dismantling activities. Three of the inspections were planned and three were unplanned. It should be noted that on most occasions, these inspections were carried out across the entire site and covered a review of other on-site concurrent reclamation activities in addition to the work being carried out at the mill area. On July 17, a phone call from the YWCHSB was made to the Amec Foster Wheeler Construction Monitor to issue a stop work order as a result of suspected lead contamination of workers conducting work in and around the Mill area. There had been no site inspection immediately prior to the order being issued.

3.5.3 Yukon Workplace Health and Safety Board Orders

There were five sets of orders issued as a result of workplace health and safety violations associated with the Mill dismantling and decommissioning activities. In each case it was the responsibility of the business owner to ensure that they responded to the orders issued by the date specified on the order. The Orders that were issued to JDS and their Sub–Contractors relating to dismantling activities are as follows:

Non–Compliance Orders Issued Following May 7 Inspection

JDS - Verification that daily equipment inspections are being conducted. Replace right side mirror of the zoom boom.

Brad Paddison Contracting Inc. - Certify man-cage by a professional engineer before use. Provide a copy of the drawings and specifications of a suspended cage. Attachments shall be forwarded to the Director prior to the cage being put into service.

Stop Work Order Issued Following June 10 Accident

All Contractors - Immediately following the lost time accident involving a fall from height, a stop work order was in effect for the Mill site pending the outcome of YWCHSB investigation. A moratorium was placed on work over 1.8 m on June 11. On June 12, YWCHSB indicated that Teck-directed projects taking place on the property could resume. Mill dismantling activities were allowed to proceed with the exception of working at height over 1.8 m. On June 17, JDS introduced a new fall arrest policy for working at height which was reviewed with all workers on site including the Amec Foster Wheeler SHE Monitor. The stop work order for working at height remained in place until June 26. Following the removal of the stop work order issued by the YWCHSB, JDS conducted an all worker meeting prior to the commencement of working at height, highlighting the requirements for working at height and the requirement to be 100% tied off at all times. As part of the stipulation for removing the stop work order, JDS needed to provide proof

of proper certification and proof of training for all workers who were going to work at height following lifting of the stop work order.

Non–Compliance Orders Issued July 4, Following the July 1 Inspection

- JDS and Priority Steel Elected members of the JOHSC must receive accident/incident investigation training.
- All incidents on site must go through a formal investigation/review process by JOHSC committee members.
- Comply with hot work permits on site as per the regulation.
- Grounding of the generator supplying power to the JDS site trailer.
- All compressed gas cylinders must be stored in a secured manner.
- Conduct and audit of all slings and rigging for signs of wear and tear. Items discovered to be faulty must be destroyed.
- General housekeeping and tripping hazards such as lumber, cables, lanyards, etc.
- Replace the expired fire suppression system on the 60 ton crane.
- Priority Steel to purchase and use only CSA Z94 standard approved safety glasses and asked to provide documentation that CSA approved eye protection for cutting/hotwork were in place.
- Have lead soap wipes readily available in the washrooms and have a system in place to ensure that workers are using them.

There may be items in the orders above that have not been included. Amec Foster Wheeler did not receive all copies of these orders.

Non–Compliance Orders Issued on July 11, following the July 11 Inspection

JDS

- Faulty ladder removed from service.
- Ensure the proper storage of compressed gas cylinders (caps on).
- Broken gauges on cutting equipment. (Remove from service).
- Documented fit testing for workers requiring the use of a respirator. Proper storage and cleaning also required.
- Rented forklift removed from service for broken taillight, expired certification.
- Three mobile equipment related deficiencies.
- Ensure that load bearing equipment is tested and documentation of testing is available.
- Chain fall removed from service for missing safety latch.

Priority Steel

Expired fall arrest harness being worn by a worker – conduct an audit of all equipment for an expiry date, remove all expired harnesses and conduct documented daily inspections of fall arrest equipment.

Stop Work Order Issued July 17 by Email and Phone:

All Contractors - on July 17 the YWCHSB issued a temporary stop work order of the SDH project. Amec Foster Wheeler issued a radio communication to all Contractors and workers to cease work

immediately and report to the main gate muster station. At 5:05 pm, all site personnel had gathered at the muster station and the Amec Foster Wheeler Construction Monitor informed site personnel of the YWCHSB Order. It was communicated to all workers that the stop work order had been issued as a result of suspected elevated levels of lead detected in some workers involved in mill decommissioning activities. The stop work order was issued subsequent to recent medical results for workers completing mill decommissioning activities and YWCHSB's concerns for the potential for lead exposure to other workers on site. A meeting was scheduled for July 18 in Whitehorse between YWCHSB, Contractors and Teck to determine a plan of action and the project site would remain closed until Teck produced a standard operating procedure incorporating safe work practices towards the reduction of potential exposure to lead dust. The document was prepared and submitted to YWCHSB for review. Subsequent to the revision of the draft SOP with YWCHSB, the stop work order was lifted for Teck-directed reclamation works at approximately 5 pm on July 19. The mill footprint remained under a stop work order until end of day on July 23. JDS resumed work under their own SOP (G 511 Lead Handling) and a site-specific safe work plan. A copy of the JDS SOP document was provided to Amec Foster Wheeler and is retained on file. The JDS safe work plan stated that workers would be required to wear negative-pressure, half-mask respirators with P100 cartridges for the majority of the work remaining on the mill dismantling project.

Mandatory blood testing for all workers on the project as stipulated by YWCHSB was initiated on July 24. The two step process required workers to report to a scheduled appointment at the Watson Lake Clinic for a brief interview with the clinic physician in order to receive the blood test requisition. The worker was then required to report to the Watson Lake Hospital for the blood test. As the blood testing was mandated by the YWCHSB, workers were provided with the contact information for the clinic doctor in the event they wanted to know the results of their test.

No information was received from YWCHSB to indicate there were any measured lead in blood concentrations exceeding regulatory criteria.

4.0 DEMOLITION ACTIVITIES

4.1 Initial Work Activities

4.1.1 Mobilization

The Amec Foster Wheeler Construction Monitor mobilized to site April 9, 2014 and held site orientations with JDS, Energy North Construction (ENC), Alpha Safety (Alpha), Mueller Electric Ltd. (Mueller) and Swift Expediting (Swift) personnel as they arrived to site. The Amec Foster Wheeler Demolition Monitor arrived on site April 21 with initial dismantling activities in progress. JDS conducted snow clearing activities with the use of a D7 bulldozer upon arrival to the site. A summary of the arrival and departure dates for JDS and their main sub-contractors conducting mill dismantling and decommissioning activities for the period beginning April 9, 2014 and ending August 16, 2014 are presented in Table 4.1.

Table 4.1: JDS and Sub-Contractors – Services Provided, Maximum Number of Employees, Mobilization and Demobilization Dates

Contractor Group	Primary Service Provided	Number of Employees	Date Mobilized	Date Demobilized
JDS Silver (Energy & Mining)	Owner / Prime Contractor	24	09-Apr-14	05-Aug-14
Alpha Safety Ltd.*	EMT	1	09-Apr-14	07-May-14
Energy North Construction Inc.*	Hazardous Material Abatement	8	25-Apr-14	02-May-14
Swift Expediting*	Packaging of Inventory	4	26-Apr-14	02-May-14
Iyon Kechika Contracting Ltd.*	General Labour	13	19-Apr-14	02-Aug-14
Mueller Electric Ltd.*	Electrical Decommissioning	11	26-Apr-14	17-May-14
Brad Paddison Contracting Ltd.*	Equipment Dismantling & Removal	27	30-Apr-14	12-Jun-14
ALX Exploration Services*	Structural Dismantling	18	01-May-14	22-May-14
Dease River Development Corp.*	EMT	2	12-May-14	31-Jul-14
Sterling Crane*	Crane Services	2	15-May-14	30-Jul-14
Priority Steel Erectors Ltd.*	Structural Dismantling	6	29-May-14	31-Jul-14

Note: * Subcontractors

On April 23 workers from ENC arrived on site to begin the removal of hazardous building materials (HBMs). Details on all HBM abatement are provided further in Section 4.1.3.

Workers from Swift arrived on site April 26 to begin the process of itemizing materials in the Warehouse and Laboratory for packaging and storage in sea cans for future off-site transport.

On April 26 workers from Mueller arrived on site and completed their mobilization, site inductions and started electrical decommissioning on May 1. Mueller conducted decommissioning of all electrical lines and installed temporary generators on-site to provide electrical services to JDS/sub-contractor trailers and work areas.

Brad Paddison Contracting (BPC) was hired to remove and package process-related equipment from the Mill buildings and prepare them for transportation from site. BPC mobilized to site on April 30, 2014.

ALX Exploration Services (ALX) was hired to dismantle the main buildings of the Concentrator Complex. ALX arrived on site May 01, 2014. Due to issues not disclosed to Amec Foster Wheeler

or Teck, ALX were asked to leave the work site on May 22, 2014. Priority Steel Erectors Ltd. (Priority Steel) was hired to replace ALX during the project. They mobilized to site on May 29, 2014.

Other service suppliers mobilized to site to carry out small work items and these details are provided throughout the remainder of this report.

4.1.2 Equipment

The heavy equipment and machinery provided by JDS and their sub-contractors to execute the main demolition activities included the following:

- Genie Zoom-boom (2)
- CAT D7R Bulldozer (1)
- CAT 740 Rock Truck (1)
- CAT 336D Excavator (1)
- 20 ton Crane (1)
- 60 ton Crane (1)
- 165 ton Crane (1)
- 966 Loader (1)
- CAT skid steer (1)
- Aerial Work Platform (3)
- Tractor trailer (multiple)

4.1.3 Hazardous Building Materials Removal

JDS's *Execution Plan* (provided in Appendix A) for the Mill Dismantling project stated that JDS was to engage a licensed abatement contractor to remove hazardous building materials (HBMs) prior to conducting any demolition or dismantling work for each of the mill structures. JDS contracted ENC, a certified abatement contractor, to remove HBMs, including those identified by Golder in their *Pre-Demolition Hazardous Building Materials Assessment* Report (February 2013), *Mine Infrastructure and Camp Buildings, Sa Dena Hes Mine, Yukon Territory* (February 2013) and *Concentrator Complex and Associated Structures, Sa Dena Hes Mine, Yukon Territory,* (February 1, 2013). ENC began the abatement of the HBMs in the former Warehouse, Dry and Lab buildings. Materials included those containing asbestos (such as window putty) and lead (such as remaining process concentrate, loose/chipped paint, residue on miscellaneous steel not being salvaged, mercury (such as vapour light bulbs), Polychlorinated Biphenyl (PCB) containing fluorescent light ballasts, fire extinguishers, smoke detectors, and fire alarms.

JDS's Execution Plan specified the methods that were to be used in the abatement of these hazardous materials. Amec Foster Wheeler Demolition Monitors were not able to inspect the abatement due to the hazardous nature of the work and associated additional PPE requirements associated with the tasks. Amec Foster Wheeler personnel did not access the interior of buildings. Therefore, the methods described are as presented in JDS's Execution Plan. For asbestos, the material was to be removed by wetting the material with a surfactant or encapsulating the material, followed by scraping and vacuuming the material for collection. These collected materials were placed in 6 mil poly bags and double-bagged for off-site disposal. Residue process lead concentrate was consolidated, placed in drums and then sealed with poly material or placed in 6 mil bags. The concentrate was hauled to the ventilation raises on Jewelbox Hill for disposal. Loose/chipped lead paint sampled and tested by Golder that was found to contain a lead content

greater than 90 mg/kg (as outlined by the Canadian Ministry of Health Hazardous Products Act LCP criteria) was vacuumed/swept and was double-bagged for off-site disposal. These materials were transported off-site by KBL Environmental Ltd (KBL), a licensed HBM transportation company. Mercury-vapor light bulbs were placed in lined drums designed to safely contain and crush the bulbs. These were labelled, transported off site and disposed of in an approved hazardous materials facility. Other materials such as reagents, oils, solvents, lubricants, etc., were collected and were hauled off-site. These items were to be handled and disposed of off-site in accordance with applicable Territorial regulations.

Removal of the HBMs identified in the pre-demolition reports completed by Golder as noted above followed the disposal methodology presented in Table 4.2.

Table 4.2: Hazardous Building Materials Disposal Methodology

HBMs Removed	Disposal Methodology
Non-friable asbestos-containing - Grey Window Putty	Materials were triple-ply bagged and stored on wooden pallets in the JDS laydown area. Materials were transported to Whitehorse by KBL where they were stored in a secure area until taken to the local landfill. Once transported to the landfill, materials were buried in a designated area.
Non-friable asbestos-containing - Fire Stop (Black)	
Lead-containing paint (>90 mg/kg)	Loose and flaking material was to be removed without the use of power tools into triple-ply bags and removed with other special waste material. Lead based paint became part of the demolition debris. Workers were advised to wear PPE while completing demolition activities.
Lead Process Residue	Lead concentrate was consolidated, placed in drums and then sealed with poly material. The concentrate was hauled to the ventilation raises on Jewelbox Hill for disposal.
Process residues and chemicals	Materials were collected, stored for classification and removed by KBL.
Crystalline Silica	To ensure potential silica dust from concrete and cinderblocks is kept to a minimum, materials were wet down prior to and during work being conducted.
Radioactive material-containing smoke detectors.	Removed by hand (appropriate PPE) by removing from fixture. Stored in separate drums in sea cans for reuse or disposal to a licensed receiving facility.
PCB-containing light ballasts	
Mercury-containing materials (fluorescent light tubes, high intensity discharge mercury lamps, neon exit signs).	

ENC conducted abatement work at the mill site during the period of April 24, 2014 to May 2, 2014. ENC carried out removal of hazardous building materials (HBMs) from the buildings listed below in accordance with the Golder *Pre-Demolition Hazardous Building Materials Assessment* Report in preparation for demolition of these structures:

- Warehouse, Dry and Lab
- Shop/Metal Building
- Cold Storage Warehouse
- Powerhouse
- Three Outbuildings
- Concentrator Complex (Mill)
- Crusher Building and Conveyor Sysytems
- Reagent Bins
- Maintenance Control Circuit (MCC) Units (1&2)
- Conveyors and Associated Structures

Asbestos-containing materials (ACMs) present in various proportions throughout the Mill and associated buildings (listed above) were removed as outlined in Table 4.2. In addition to the HBMs identified in the Golder HBMs Pre-Demolition report, there were items present that were not sampled but due to their nature of potentially being asbestos-containing materials, they were treated as such during dismantling activities. The assumed asbestos materials were as follows:

- Gaskets present on all equipment
- Additional materials such as leveling compounds and other vinyl flooring that was present under existing flooring
- Cinderblock insulation
- Unidentified insulating materials

The following subsections provide details on pre-demolition HBM extraction carried out at the various buildings.

4.1.3.1 Warehouse, Dry and Lab Facilities

A summary of HBMs removed from the Warehouse, Dry and Lab facilities, following the removal and disposal methodology described in Section 4.1.3 is provided in Table 4.3.

Table 4.3: HBM Removal from Warehouse, Dry and Lab Facilities

HBMs Removed	Location of HBMs Within Buildings
Non-friable asbestos-containing - Grey Window Putty	Small storage - Window Office 3 - Window Hallway 1 – Window **Note**: Visually similar materials were discovered in other locations not identified in the report and were also treated as asbestos-containing materials.
Non-friable asbestos-containing - Fire Stop (Black)	Lab 2 – Electrical conduit **Note**: Visually similar materials may be present in other locations not identified in the report and were to be treated as asbestos-containing materials.
Lead-containing paint (>90 mg/kg)	Small storage – White ceiling paint Room 12 – Grey floor paint Exterior – yellow/beige paint - Visually similar to positive testing exterior paint on the Mill building but not sampled; assumed to contain lead.
PCB-containing light ballasts	Unknown number of light ballasts. All light ballasts were considered as suspect PCB-containing unless proven otherwise.
Mercury-containing materials (fluorescent light tubes, high intensity discharge mercury lamps, neon exit signs)	210 fluorescent light tubes, One HID mercury lamp Five mercury containing thermostats

A large number of chemicals were also observed in Laboratory 1, 2, 3 and 4. The chemicals were packaged in secondary containment for safe removal by Swift. In July, KBL classified any unmarked chemicals and removed all of the chemicals from site for appropriate disposal.

4.1.3.2 Crusher Building / Conveyor System

Based on asbestos sampling activities reported in Golder's *Pre-Demolition Hazardous Building Materials Assessment, February 1, 2013,* the Crusher building and associated conveyor systems was found to not contain ACMs. The Golder HBM report identified that lead based paint > 90 mg/kg was present in the Crusher Building and on the conveyor system. A summary of HBMs removed from the Crusher Building/Conveyor System, which were disposed of as described in Section 4.1.3, is provided in Table 4.4.

Table 4.4: HBM Removal from Crusher Building/Conveyor System

HBMs Removed	Location of HBMs Within Buildings
*Lead-containing paint (>90 mg/kg)	**Crusher Building** Structural beams – Grey paint Guard rails – Yellow paint Exterior – yellow/beige paint - Visually similar to positive testing exterior paint on the Mill building but not sampled; assumed to contain lead. **Conveyor System** Grey and blue paint - Visually similar to positive testing paint on the Mill building but not sampled; assumed to contain lead.
PCB-containing light ballasts	Unknown number of light ballasts. All light ballasts were considered as suspect PCB containing unless proven otherwise.
Mercury-containing materials (fluorescent light tubes, high intensity discharge mercury lamps, neon exit signs).	**Crusher Building** 2 fluorescent light tubes 37 HID mercury lamp 2 neon exit signs Five mercury containing thermostats **Conveyor System** 3 HID mercury lamp

* Note: Abatement was not carried out on these HBMs. The mill components containing this material were salvaged and hauled off-site for future use as part of the dismantling and reclaiming operation.

4.1.3.3 Power House / MCC 1&2

Based on asbestos sampling activities reported in Golder's *Pre-Demolition Hazardous Building Materials Assessment* (February, 2013), the Power House/MCC 1 & 2 was found to not contain ACMs. However, mastics and equipment gaskets contained within were assumed to contain asbestos and treated as such upon their removal.

The Golder HBM report identified that lead based paint > 90 mg/kg was present in the Power House/MCC 1 & 2. A summary of HBMs removed from the Power House/MCC 1 & 2, disposed as outlined in Section 4.1.3, is provided in Table 4.5.

Table 4.5: HBM Removal from Power House/MCC 1 & 2

HBMs Removed	Location of HBMs Within Buildings
*Lead-containing paint (>90 mg/kg)	**Power House** Floor – Grey paint Glycol Pipeline – White paint Structural beams – Red paint Exterior – yellow/beige paint - Visually similar to positive testing exterior paint on the Mill building but not sampled; assumed to contain lead **MCC 1&2** Floor – Grey/blue paint Door Frame – Grey paint Floor – Grey paint Walls – Blue paint
PCB-containing light ballasts	Unknown number of light ballasts. All light ballasts were considered as suspect PCB- containing unless proven otherwise.
Mercury-containing materials (fluorescent light tubes, high intensity discharge mercury lamps, neon exit signs).	**Power House** 12 fluorescent light tubes 1 HID mercury lamp 2 neon exit signs **MCC 1&2** 79 fluorescent light tubes 2 neon exit signs

* Note: Abatement was not carried out on some of these HBMs. Some mill components containing this material were salvaged and hauled off-site for future use as part of the dismantling and reclaiming operation.

4.1.3.4 Concentrator / Mill

There was a large quantity of equipment in the Mill that housed mine process residues, chemicals and other hazardous materials including waste oils and liquid that could contain Polycyclic Aromatic Hydrocarbons, Polychlorinated Biphenyls, metals and extractable petroleum. The materials were sampled and tested by Golder. JDS was provided with a list of materials assumed to be present at the time of take over. Additionally, based on asbestos sampling activities reported in Golder's *Pre-Demolition Hazardous Building Materials Assessment* (February, 2013), the Mill was found to contain ACMs in the form of window putty and grey caulking associated with electrical equipment. The Golder report also identified that lead based paint > 90 mg/kg was present in the Mill Building. A summary of HBMs removed from the Mill, disposed as outlined in Section 4.1.3, is provided in Table 4.6.

Table 4.6: HBM Removal from the Mill

HBMs Removed	Location of HBMs Within Buildings
Non-friable asbestos containing - White Window Putty	Loadout Area Office – Window Office 3 - Window Hallway 1 – Window **Note**: Visually similar materials were present in other locations not identified in the report and were treated as asbestos containing materials.
Non-friable asbestos containing - Fire Stop (Grey)	Exterior – Electrical conduit enters the building **Note**: Visually similar materials were present in other locations not identified in the report and were treated as asbestos containing materials.
*Lead containing paint (>90 mg/kg)	Floor – Grey/blue paint Staircase hand rail – Yellow paint Structural Beam – Grey paint Floor – Blue paint Exterior – yellow/beige paint - Visually similar to positive testing exterior paint on the Mill building but not sampled; assumed to contain lead Exterior Trim – White paint
Radioactive material-containing smoke detectors.	2 smoke detectors 7 nuclear gauges
PCB-containing light ballasts	Unknown number of light ballasts. All light ballasts were considered as suspect PCB containing unless proven otherwise.
Mercury-containing materials (fluorescent light tubes, high intensity discharge mercury lamps, neon exit signs)	16 fluorescent light tubes 90 HID mercury lamp 9 neon exit signs

* Note: Abatement was not carried out on some of these HBMs. Some mill components containing this material were salvaged and hauled off-site for future use as part of the dismantling and reclaiming operation.

4.1.4 HBM Disposal

KBL were on site July 7 and July 12 to provide classification, packaging, labelling, manifesting, transportation, recycling and/or disposal of special and hazardous waste extracted as described in Section 4.1.2 and 4.1.3. KBL removed the HBMs stored in the JDS laydown area. KBL also removed the material contained in tanks in the former concentrator radiator banks, on July 12 with a vacuum truck to assist with the extractions. The removal (off-site) of the stored HBM waste that had been removed by ENC in April and May was completed on July 12.

KPI Northern Ltd. / 16142 Yukon Inc. (KPI) was retained to remove and dispose of miscellaneous waste materials from the mill site and overall site including gas cylinders of varying sizes, waste oil, 45 gallon drums, paint cans, tar, asphalt tiles, caulking and other construction waste from behind the mobile home at the mill site. The materials were removed from the site on September 17. On September 20, KPI also carried out the remediation of the containment liner of the former tank farm (gasoline and diesel fuel storage area) near the front gate. All miscellaneous waste materials were transported to Northern Environmental Services / 16142 YT Inc. licensed facility in Watson Lake for disposal.

4.2 Main Work Activities

4.2.1 Demolition of the Warehouse, Dry and Lab

The Warehouse, Dry and Lab facilities consisted of a wooden framed, fiberglass insulated metal cladding structure on a wood foundation and was approximately 465 square metres in area with a height of approximately 3.6 metres. The Warehouse, Dry and Lab contained two storage areas, an office area, an electrical room, a mine dry area and a laboratory. A layout of the Warehouse, Dry and Lab (pre-demolition) is shown in Appendix C.

Following the removal of all HBMs, as discussed in Section 4.1.3.1, Swift removed remaining assets which were packaged and stored in sea cans for removal off site.

Demolition of the Warehouse, Dry and Lab began on May 1, 2014, following the removal of all HBMs. An excavator removed and crushed the general material (roofing, exterior walls, and interior partitions). The material was then stockpiled in preparation for loading into JDS's rock truck for hauling to the on-site landfill for disposal. The Warehouse, Dry and Lab demolition was completed on May 4, 2014, however, removal of the demolition debris materials to the landfill did not begin until May 12, 2014.

4.2.2 Dismantling of the Crusher Building / Conveyor System

The Crusher building had an area of approximately 128 square metres and was approximately 15 metres in height. The structure consisted of a steel frame with fibreglass insulated metal cladding on a concrete foundation with a metal roof. There were four levels to the crusher building, an open area on the ground level, two mezzanine levels and a top level. The crusher was operated by two control rooms. One control room was located on the mezzanine level and one on the top of the fourth level. The interior was finished with metal, pre-formed fiberglass and sheet flooring with a large crusher in the centre of the building.

The conveyor system and structures were used to transport crushed material to a wooden structure located next to the Power House and to the grinding area of the Mill complex for further refining. The two conveyors consisted of steel frame with steel support columns. The crushed material was moved on rubber conveyor belts and was covered by molded sheet metal. An additional corrugated steel tunnel ran perpendicular to the overhead conveyors and was used as a covered walkway for workers travelling on foot under the overhead conveyors in case of falling material from the conveyor belts. A layout of the Crusher Building/Conveyor System (pre-demolition) is shown in Appendix C.

4.2.2.1 Crusher Dismantling

Dismantling of the Crusher Building began on May 1 with the removal of the top portion of the crusher and exterior cladding by ALX. Electrical decommissioning by Mueller was completed on

May 7 which allowed BPC to enter and begin the removal of equipment while ALX continued removing the exterior cladding.

On May 17, dismantling of the main frame of the south portion of the Crusher Building began. Workers worked concurrently both sides of the building. A 60 ton crane operated from the top of the crusher building removing horizontal structural steel from the south side of the building and a 20 ton crane worked on the north side of the building. Structural steel was raised to the Crusher pad laydown area at the top of the Crusher Building where it was stockpiled in bundles for shipping. On May 19, the removal and hoisting of the main vertical steel columns was conducted via the 60 ton crane to the upper pad lay down area. Activities were ceased temporarily with the departure of ALX on May 22 but resumed on May 29 when Priority Steel continued structural removal.

The crusher box was removed on May 23 followed by the removal of the concrete deck on the crusher ramp. A skid steer with a jack hammer attachment was used to break up the concrete. The removal was completed on June 3. The broken up concrete was used as backfill during future reshaping efforts in the former crusher area.

On June 26, Priority Steel resumed dismantling of the remaining structural steel on the north portion of the Crusher Building that housed the crusher box. On July 1, all structural steel removal from the crusher building was complete.

4.2.2.2 Conveyor System Dismantling

Dismantling work of the conveyor systems began on May 8 to disconnect the reclaim conveyor belt that runs from the Crusher Building to the mill. On June 26, the removal of the supply conveyor running from the Crusher Building to the coarse ore bin began by dismantling the support connections. During dismantling operations of both conveyors, the components were supported by crane. Once the conveyor supports were disconnected, the crane was utilized to place the conveyor segments on the ground. Once the conveyors were placed on the ground, they were disassembled into manageable sections for off-site transport and salvage.

Non-salvaged material from the crusher building was hauled to the landfill for disposal. Landfill activities are further described in Section 4.4. The Crusher Building foundation was left in a swept clean condition.

4.2.3 Demolition of the Power House/MCC 1 & 2

The Power House had an area of approximately 409 square metres and the structure was approximately 7.6 metres in height. The structure consisted of a single storey steel frame building with fibreglass insulated metal cladding on a concrete foundation with a metal roof. The building had a large open area with an electrical room.

MCC Units 1 & 2 were located on the north side of the mill and were accessible from the exterior of the buildings or from the inside of the mill. MCC 1 was a single storey building and MCC 2 was a two storey building. Both buildings were cinderblock structures with metal roofs. Two transformers were on the north side of the MCC 2 building and 1 transformer was on the outside of the north wall of the MCC 1 building. The interior finishes on the first floor of both buildings were metal, cinderblock and concrete. The finishes on the second floor of MCC 2 were ceiling tiles, drywall walls, cinderblock walls, sheet flooring and concrete. A layout of the Power House/MCC 1 & 2 (pre-demolition) is provided in Appendix C.

Mueller worked on the electrical decommissioning of the Power House during the week of May 11. By the end of the week they had completed electrical disconnection of service and they completed the final disconnection preparation of the Power House exhaust unit and radiators which were then ready for removal. During the same period Mueller began pulling equipment from the Power House and packaging the equipment in crates in preparation for off-site shipment.

Between May 19 and 21, all cladding had been removed from the Power House. On May 22, all girt steel was removed. Dismantling of the main structural steel of the Power House began on May 24 with the removal of the roof beams. The removal of structural steel was completed on May 26. Four shrink-wrapped generators were transported off site July 29.

On May 19 the removal of roof cladding on MCC 2 was started. The following day, the structural steel roof supports were removed with the assistance of the 60 ton crane. On May 21 the final demolition and removal of the cinderblock walls was complete. The cinderblock was filled with an insulation material identified by JDS to be zonolite, a non-hazardous insulating material. Workers were required to wet the material during demolition and to wear respiratory protection at all times.

On May 22 the removal of roof cladding on MCC 1 was initiated. The following day, the structural steel roof supports were removed with the assistance of the 60 ton crane. On May 29 the final demolition and removal of the cinderblock walls was complete. The cinderblock walls of MCC 1 were also filled with what appeared to be the same insulating material as MCC 2. Workers were required to wet the material during demolition and to wear respiratory protection at all times.

Insulation, cinderblocks, and general roofing materials were taken to the landfill and buried. Landfill operations are further described in Section 4.4. The Power House and the MCC buildings footprint was left in a swept clean condition.

4.2.4 Dismantling of the Concentrator Building (Mill)

The Concentrator Building (Mill) had an area of approximately 1,394 square metres and was approximately 30 metres in height. The structure consisted of a steel frame with fibreglass

insulated metal cladding on a concrete foundation with a metal roof. For reporting purposes the Mill has been divided into three sections:

- Grinding Area with a coarse ore bin on the west end and Reagent Bins on the south side
- Process Area (flotation cells).
- Reagent Building with Load-out Area on the east end of the building.

The Process Area had three stories on the north side of the area with a compressor room, lunch room, washroom and an office. The Reagent Building with Load-out area consisted of five levels. The interior of all the three sections of the Mill was finished with ceiling tiles, metal, pre-formed fibreglass, drywall, and sheet flooring. A layout of the Concentrator Building (Mill) (pre-demolition) is shown in Appendix C.

Mueller worked on the electrical decommissioning of the mill between May 1 and May 19. Once all power had been disconnected, lighting in the building was supplied by portable generator powered lights to supply adequate visibility for workers.

BPC workers disconnected and removed mining equipment with the utilization of manpower, zoom boom, and dollies. A significant amount of the equipment was relocated to building entrances with the use of a 20 ton overhead crane that was part of the process operation while the mill was in operation. Prior to re-commissioning of the overhead crane, JDS had the crane re-certified. On May 28, with the majority of the smaller to mid-sized equipment removed from the Grinding Area and Process Area, the upper deck of the 20 ton overhead crane from grinding area was removed from the mill.

Between May 1 and 11, all cladding was removed from the mill. Dismantling of the main structural steel of the Mill Process Area began on May 12 with the removal of the roof beams in order to create space for removal of large pieces of equipment via crane lift. The removal of structural steel in the Process Area was completed with the 20 ton crane between May 14 and May 20. On May 28 the flotation cells were removed from the inside of the Mill.

The removal of roof cladding on the Grinding Area began on May 19. Concrete flooring material prevented the removal of four structural columns. The concrete floor was removed via a skid steer with a jackhammer attachment between May 19 and June 3. Roof beams over the grinding area were removed on May 21 while ALX workers concurrently began loosening south wall beams in preparation of removal. From May 28 to June 1, structural steel from the Grinding Area was removed. On June 17 Priority Steel workers worked on bracing and preparation of the ball mill removal. The ball mill was lifted off of its foundation and placed on the ground. The ball mill was the last piece of large process equipment removed from site and was loaded onto a flatbed truck for transport.

On May 23, removal of the structural roof beams from the Reagent/Loadout Area of the mill began. On June 9, BPC and Priority Steel combined forces to complete the structural steel dismantling of the Reagent/Loadout Area. All three cranes on site (20 ton, 60 ton & 165 ton) were utilized at the mill to complete this work. Extraction of the three concentrate tanks was also completed at this time.

With all of the internal workings of the coarse ore bin having been removed by BPC workers, efforts were directed to the structural removal of the coarse ore bin. Between the dates of July 1 – July 9, workers separated the bin into layers lowering each section to the ground from the concrete platform.

Insulation, cinderblock, and general roofing materials were taken to the landfill and buried. Concrete foundations of various mill structures were swept clean of remaining debris, which was collected and transported up to the Jewelbox waste rock dump near the Jewelbox 1408 portal for storage for eventual deposition into the ventilation raises.

JDS also hauled concentrate and debris from the demolished concrete block wall from the concentrator load-out area up to the Jewelbox waste rock dump for deposition into the ventilation raises.

The mill complex area was left in swept clean condition. Capping, grading and reshaping of the mill area was completed before the end of the 2014 season under another contract.

4.2.5 Dismantling of Tank Farm

The mill site tank farm consisted of three tanks: a water storage tank, a diesel tank and a gasoline tank.

Quotes for the removal of the fuel from the diesel and gasoline tanks and cleaning of the tanks were requested by Teck on June 2. KBL Environmental from Whitehorse provided associated cost estimates as per Teck and JDS requirements. On June 3 KPI visited the site to determine whether or not they would be able to extract the existing gas and diesel from the tanks. On June 7 a combined effort by KPI and KBL was utilized to remove the contents and clean both of the fuel tanks. KPI removed the fuel from the gasoline tank and most of the fuel from the diesel tank. KBL removed the remaining diesel fuel and conducted cleaning services on both tanks. The fuel was hauled off-site for salvage.

Between July 5 and July 7, BPC and Priority Steel workers started the dismantling and removal of the gas and diesel tanks. The tanks were dismantled from the top down by cutting the tanks into sections while supported by a crane. Once a section was cut, it was lowered to the ground and then the next section was cut using the same procedure. For the fuel tank, there were three sections which were removed from site on a flatbed trailer by transport truck. The diesel tank was

the widest load to leave the site. The load consists of three sections of tank and measured 6.8 m. in width. All permits were in place and four pilot cars accompanied the load to its destination.

Priority Steel workers dismantled the water storage tank between July 7 and July 30. The tank was dismantled from the top down by cutting it into sections while supported by a crane. Once a section was cut, it was lowered to the ground and then the next section was cut using the same procedure. There were three sections in all and the tank was removed from site on a flatbed by transport truck.

4.2.6 Demolition of Foldaway Buildings

There were two pre-engineered metal foldaway buildings erected on site, a Shop/Metal building and a Cold Storage Warehouse.

The Shop/Metal building had a floor area of approximately 100 square metres and was approximately 7.6 metres in height. The building had a metal frame with fiberglass insulted metal cladding with a concrete foundation and a metal roof. The building had a main area, a loft area and small offices. The interior was finished with fiberglass ceilings, metal walls and exposed concrete floor.

The Cold Storage Warehouse had a floor area of approximately 186 square metres and was approximately 7.6 metres in height. The building was metal framed with metal cladding and a metal roof. The interior had exposed metal structural beams and a dirt floor.

During the course of the mill dismantling activities the Shop building was used to build containers for the transportation of equipment and the machining of steel bolts and bracket that were welded onto equipment to be lifted. On June 16 the interior finishes of the Shop/Metal building were removed. Between July 9 and 11, the building was dismantled with the use of a crane. The roof panels were lifted from the centre of the roof, folding the two sides of the roof in half. The panels were loaded onto an awaiting flatbed truck for removal from site.

The Cold Storage Warehouse was dismantled between July 3 and 6 using the same method as the dismantling of the Shop building above.

4.2.7 Outbuildings

There were 3 outbuildings associated with the JDS dismantling activities: A Water Distribution Pump House adjacent to the water supply tank and two wooden transformer/generator sheds.

The Water Distribution Pump House was a wooden structure on concrete foundation with metal roof. The pump house was located east of the Water Storage Tank. The pump house was demolished on by excavator on June 1. The two transformer/generator wooden sheds were demolished by excavator on June 1.

4.3 Other Work Activities

4.3.1 Steel Ball Collection

On August 1, 2014 JDS loaded 45 gallon drums of steel balls used in the mill onto a flatbed for transport off site.

4.3.2 Miscellaneous

On July 29 JDS disassembled water distribution pumps from the Reclaim Pond and North Creek Dyke pump shacks. JDS salvaged the pumps for future operations and removed them from site.

4.4 Landfill Operations

In 2014, following ENC's abatement work and demolition of the Warehouse, Dry and Lab, JDS excavated two disposal cells within the limits of the SDH landfill. On May 7, 2014, the Amec Foster Wheeler Construction Monitor detailed the procedure for maintaining the landfill to the JDS Construction Manager. Specific items included the requirement to crush material for burial and to add soil to the debris as it was buried. This was important to help mitigate long-term subsidence of the deposition cells.

Beginning on May 12, 2014, JDS began transporting demolition debris from the Mill site to the landfill and stockpiled it for eventual burial within two disposal cells they had excavated. Amec Foster Wheeler site monitors collected progress photos and maintained a record of the daily number of loads of material being transported to the landfill. By May 26, 2014, a large quantity of debris had accumulated in the JDS landfill stockpile, which had not been compacted and buried as required. Additionally, ponding of surface runoff water had developed in the disposal cells, which was not being adequately dewatered. As a result, a temporary landfill closure was issued by Amec Foster Wheeler/Teck, beginning on May 27, 2014. JDS initiated landfill clean-up activities including dewatering of ponded water and backfilling of cells with compacted waste material and soil. Upon inspection of the landfill on May 29, 2014, it was determined that the landfill closure could be lifted, and hauling of material to the landfill could continue, with the understanding that JDS continued to maintain the landfill as debris was deposited.

Prior to disposing of the three concentrator tanks in the landfill, JDS discussed the requirements for the tanks with Amec Foster Wheeler on June 2, 2014 and it was determined that the tanks were not demolition waste suitable for landfill deposition. JDS agreed that tanks were to be crushed and removed from site.

On June 11, 2014, JDS removed a ½ truck bed from the landfill following Amec Foster Wheeler's request to have it removed.

On June 14, 2014, JDS began cleaning up the landfill and addressing concerns previously brought forward. These included dewatering the surface runoff water from the landfill deposition

zone to prepare for future disposal. JDS dewatered the area until June 17, 2014, when they resumed hauling material for disposal. On July 4, 2014, the need to dewater was reiterated to JDS, as surface runoff water continued to pond in the deposition zone. JDS used their excavator to create a ditch that prevented ponding in low areas of the deposition zone. Other contractors also created a ditch to aid in drainage through the remainder of the landfill area.

JDS's landfill disposal cells were filled with demolition debris mixed in with soil to prevent subsidence, compacted, and covered with soil. On July 22, 2014, it was observed that these cells had not been adequately backfilled with soil to achieve the required 0.1 m of cover over the deposited debris. JDS addressed this concern on July 24, 2014.

On July 31, 2014, Amec Foster Wheeler personnel noted that bollards and concrete from the Mill Site had been deposited into the landfill. After discussion, it was determined that these items needed to be removed from the landfill - which JDS completed the same day.

Over the course of the JDS Mill dismantling operations, Amec Foster Wheeler convened periodic meetings with JDS to discuss landfill progress, to address any concerns, and to mitigate identified issues.

4.5 Demobilization

On July 14 JDS started demobilization of office and lunchroom trailers. Demobilization of all trailers and equipment was completed on August 16, 2014.

Work crews left site on August 1, however following the project close out walkthrough on August 5, further clean-up efforts were identified by Teck including:

- Ore stock pile at the top of the crusher pad to be properly disposed
- Bags of concentrate located at laydown area to be properly disposed of
- General site clean-up at the JDS laydown area
- Concentrate at the load out area to be properly disposed of.

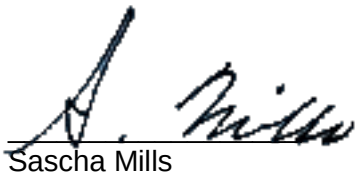
All items were remediated by JDS on August 15 and 16.

5.0 CLOSING REMARKS

The 2014 dismantling and decommissioning activities associated with the Sä Dena Hes Mine decommissioning and reclamation project were completed as outlined in this report. Select photographs from dismantling activities are provided in Appendix D. This report was prepared by Ms. Sascha Mills and reviewed by Mr. Chris Jeffrey, MIT and by Mr. John Pugh, M.Eng., P.Eng. We trust that this report satisfies your requirements. Please contact the undersigned if you have comments or questions.

Sincerely yours,

Amec Foster Wheeler Environment & Infrastructure



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APPENDIX A

JDS MINE BUILDINGS DISMANTLING PLAN

Execution Plan

Sa Dena Hes Project

Job No.:	001 – SDH Dismantle		
Operation:	Dismantle		
Location:	Watson Lake, Yukon	**Work Plan #:**	001 R1
To be Reviewed and Approved By:	JDS EPCM / Teck Resources Ltd.	**Date:**	March 31, 2014

Safety	Reviewed and Approved:		Date:
Description	Potential Hazard	Precautions and Actions	Notes:
Hazard # 1	Heavy Equipment/Lifts	FLRA/JSA, use radios and proper PPE	
Hazard # 2	Demolition	PPE, fall restraint, communication	See Hatch Dismantle Plan (Appendix B)
Hazard # 3	Confined space	Follow SOP's	
Hazard # 4	Working in remote location	Follow Emergency Response Plan	

Has Job Hazard Analysis been completed Yes ☐ No ☐

Quality Control	Reviewed and Approved:		Date:
Description	Critical Items	Actions	Notes:
Item # 1	Landfill items	Follow Waste Management Permit #81-020 & Catalogue disposed items	See Contract 6.0
Item # 2	Crusher Building	Match mark steel and catalogue for shipping	
Item # 3	Mill Building	Match mark steel and catalogue for shipping	
Item # 4	Mechanical Equipment	Properly stored for transport and catalogue	
Item # 5	Electrical Equipment	Properly stored for transport and catalogue	

Environment	Reviewed and Approved:		Date:
Description	Critical Items	Precautions and Actions	Notes:
Hazard # 1	Hazardous Building Materials	See Appendix A & SDH Site Specific H&S Plan	Golder Reports
Hazard # 2	Landfill use	Follow Waste Management Permit #81-020 & Details pertaining to Sec. 6.0 (Dismantle Contract)	
Hazard # 3	Spills	Report any spills (fuel, oil, etc.)	H&S Plan

Hold Points		
		Description
Hold Point # 1	☐	Access road cleared and passible for equipment and site infrastructure mobilization
Hold Point # 2	☐	Joint Teck / JDS kick-off meeting and inspection
Hold Point # 3	☐	Notification of damages (if any) as per Article 5 Interim Damage Section 5.2 in SDH Purchase Agreement
Hold Point # 4	☐	HBM removed from Misc. out buildings (warehouse/lab/etc..) and properly disposed of and/or contained
Hold Point # 5	☐	Assessment of Crusher building Structural steel (Provide report to Hatch)
Hold Point # 6	☐	HBM removed from Crusher building and properly disposed of and/or contained
Hold Point # 7	☐	Assessment of Concentrate building Structural steel (Provide report to Hatch)
Hold Point # 8	☐	HBM removed from Concentrate building and properly disposed of and/or contained
Hold Point # 9	☐	Assessment of Power house building Structural steel (Provide report to Hatch)
Hold Point # 10	☐	HBM removed from Power house building and properly disposed of and/or contained
Hold Point # 11	☐	Joint Teck / JDS inspection of Site and certificate of completion sign-off

Work Procedure / Step-by-Step / Activity Sequence / Access	Hold Point
1. Mobilization	
1.1. Access road cleared by Teck	*Hold Point 1*
1.2. Joint Teck / JDS kick-off meeting at site	*Hold Point 2*
1.3. JDS will inspect property and notify of damages (if any)	*Hold Point 3*
2. Outbuildings & Misc.	
2.1. Remove salvageable misc. equipment, parts, inventory, laboratory contents from Warehouse, Office area, Mine dry, Laboratory, and place in C cans	
2.2. Consult with appointed abatement contractor and determine what, if any, hazardous building materials (HBM) are present prior to any demolition work	
2.3. If HBM are present, begin abatement of such materials (Appendix A)	*Hold Point 4*
2.4. Remove cladding and roofing for any outbuilding and dispose of in landfill (Warehouse & Dry, Maintenance shop)	
2.5. Disconnect and remove any electrical wires and cable tray	
2.6. All fold away buildings will be dismantled and removed	
2.7. Stick-built or fabricated buildings will be demolished and disposed of in landfill	
2.8. Gasoline and Diesel fuel storage tanks to be emptied and contents removed from site using appropriate storage and transport methods	
2.9. Storage tanks (Gas, Diesel, and Process/Fire Water) will be cut apart and salvaged for scrap metal	
3. Crusher Building	
3.1. Visual assessment of Crusher building, structures, and equipment	*Hold Point 5*
3.2. Consult with appointed abatement contractor and determine what, if any, hazardous building materials (HBM) are present	
3.3. If HBM are present, begin abatement of such materials (Appendix A)	*Hold Point 6*
3.4. Notify Teck of assets which are to be disposed of in landfill	
3.5. Misc. piping, spools, wiring, steel, and any parts or materials to be removed and/or disposed of in landfill	
3.6. Commence building dismantle following attached structural dismantle plan (Appendix B)	
3.7. Conveyors to be dismantled and removed – materials to be salvaged if economical	
3.8. Remove any remaining equipment or materials – Ensure foundation left in “swept clean” condition	
4. Concentrate Building	
4.1. Visual assessment of Concentrate building structure	*Hold point 7*
4.2. Consult with appointed abatement contractor and determine what, if any, hazardous building materials (HBM) are present	
4.3. If HBM are present, begin abatement of such materials (Appendix A)	*Hold point 8*
4.4. Notify Teck of any purchased assets which are to be disposed of in landfill	
4.5. Disconnect smaller equipment (pumps, instrumentation, etc.)	
4.6. Remove smaller mechanical equipment inside of the building (pumps, pump boxes, loose parts/pieces)	
4.7. Removal of wiring and cable tray (Note: it is intended to utilize overhead crane for majority of dismantle)	
4.8. Remove piping throughout building	
4.9. Disconnect and remove contents of MCC units No.1 & No.2	
4.10. Commence building dismantle following attached structural dismantle plan (Appendix B)	
4.11. Remove any remaining equipment or materials – Ensure foundation left in “swept clean” condition	

5. Powerhouse	
5.1. Visual assessment of Powerhouse building structure	*Hold Point 9*
5.2. Consult with appointed abatement contractor and determine what, if any, hazardous building materials (HBM) are present	
5.3. If HBM are present, begin abatement of such materials (Appendix A)	*Hold Point 10*
5.4. Disconnect and remove cabling and cable tray – will be salvaged for scrap	
5.5. Commence building dismantle following attached structural dismantle plan (Appendix B)	
5.6. Remove Radiator units and applicable piping	
5.7. Remove Generator units (5) – Will be lifted onto truck and shipped off-site	
5.8. Remove any remaining equipment or materials – Ensure foundation left in "swept clean" condition	
6. De-Mobilization	
6.1. All purchased assets, and related structures dismantled, equipment and material removed from site, or disposed of in the land fill or off-site facilities	
6.2. Sa Dena Hes plant site as described in the SDH dismantling contract be cleaned to a "swept clean" condition	
6.3. All JDS and sub-contractor personnel, equipment and materials removed from site	
6.4. Joint Teck / JDS inspection of Site and certificate of completion sign-off	*Hold point 11*

Schedule

Description:	Target	Crew Size
Mobilization	April 30th, 2014	6
Site Preparation	May 9th, 2014	15
Crusher Building	June 15th, 2014	50
Concentrate Building	July 15th, 2014	50
Ancillary Buildings & Misc.	July 25th, 2014	35
De-Mobilization	July 31st, 2014	20

List of Required Equipment

1.	Excavator – 30 ton
2.	Articulated Haul Truck – 35 ton
3.	Highway Transport Truck (s) as required
4.	Rough Terrain Forklift x 2
5.	Hiab Truck x 1
6.	Rough Terrain Crane x 2
7.	Front End Loader x 1
8.	Skidsteer w/ Breaker x 1
9.	Elevating Work Platform x 2

Crew Make-Up and Quantity

Laborers: 30 – 40 (Millwrights, Electricians, Ironworkers, General Labour)

Equipment Operators: 2-3 Multi Operators (Excavator, Telehandler, Skidsteer, etc.), 1-2 Haul Truck Drivers, 1-2 Crane Operators, Highway Transport drivers (est. 200 loads)

Other: Construction Manager, Electrical/Mechanical Superintendent, Project/Material Coordinator

Engineering/Survey Support Required
Engineering – Required to assess and determine what structural steel will be kept and what will be sold for scrap – 1st week of May
Engineering – Assist in the reconstruction sequencing and match marking of items deemed suitable for re-use – 1st week of May
See Structural Dismantle Plan (Appendix B)

Reference of Contract Specifications, RFI's and Site Instructions
See Sa Dena Hes Purchase Agreement & Dismantling Contract

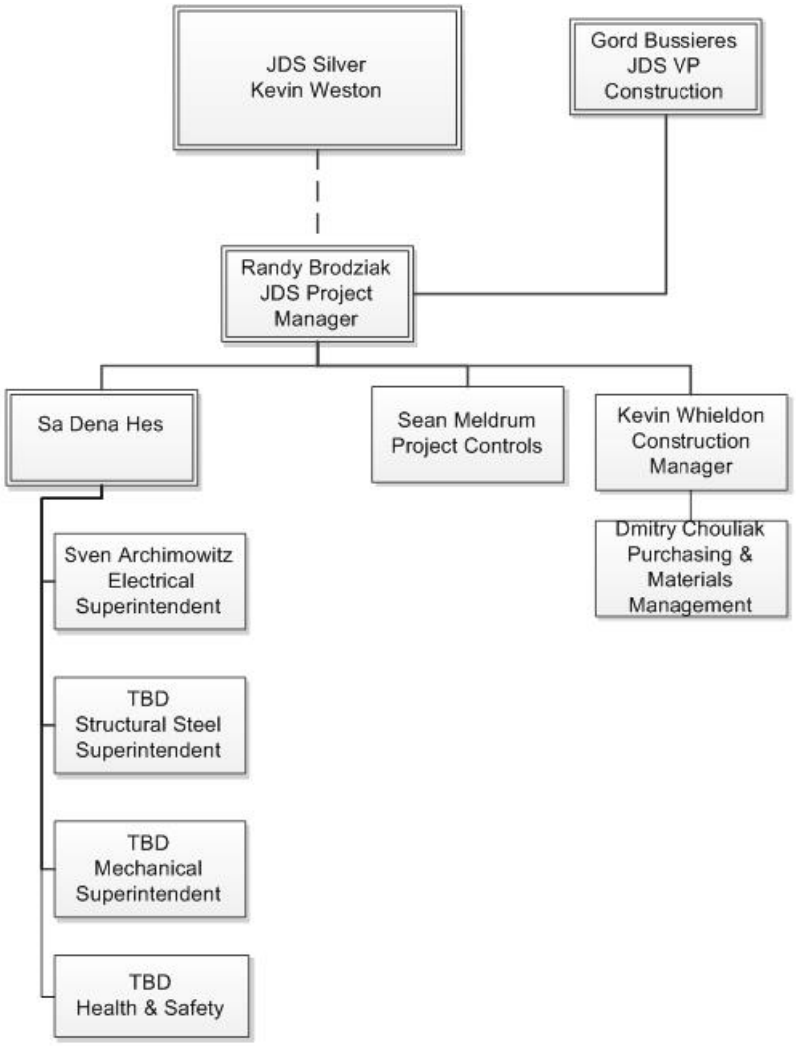
Material Handling and Storage Plan
All material and/or equipment that is to be disposed of in landfill will be catalogued and will be made available to Teck if requested
All material and/or equipment to be removed from site will be: tagged and pictured, catalogued, and banded and/or wrapped
Smaller materials and equipment will be stored in C cans for transport – C cans to be tagged, pictured, and catalogued
All structural steel that is deemed reusable will be match marked prior to dismantle and noted on drawings
Cable reels will be utilized to house wires and cabling – Wire and cable that has no use will be kept for scrap
Laydown area to be clearly marked and staged in a manner to promote efficient removal of materials/equipment off-site

Notes:

1- Work scheduled to run 24 hrs a day, 7 days a week (nightshift beginning Mid-May)
2- Daily tool box meetings to be held – Teck/AMEC encouraged to join
3- FLRA's & JHA's will be utilized as a safe work tool
4- Extent of work to remove Ball mill (full of material) is not known and will be determined once on site
5- All usable equipment and materials to be removed from site if economical
6- Mill balls in laydown will be salvaged
7- Scrap steel will be sourced to a sub-contractor if deemed economical – awaiting proposals otherwise disposed in landfill

Reviewed and Approved:
Work Plan described above is acceptable, the plan is approved, proceed with construction.

Construction Manager:	Name	Signature	Date
Client Representative:	Name	Signature	Date



List of Potential Sub Contractors

- Mueller Electric Ltd – Electrical Contractor (confirmed)
- Rees Electric Ltd. – Electrical Contractor
- Thomson Valley Erectors Ltd. – Mechanical/Structural Contractor
- Brad Paddison Contracting Ltd. – Mechanical Contractor
- ALX Exploration Ltd. – Structural Contractor
- Liard First Nation – Equipment & Manpower
- Energy North Construction – Hazardous Building Material Abatement Contractor (confirmed)
- KBL – Hazardous Material Waste Transport

APPENDIX A

APPENDIX A

Hazardous Building Material Abatement Plan

The extent of the Hazardous Building Materials (HBM) currently on site could not be confirmed at time of plan development, as a result JDS has planned the demolition based on the report titled "*Pre Demolition Hazardous "Building Materials Assessment*" written by Golder Associates in February of 2013. JDS has engaged a qualified abatement contractor (Energy North Construction Ltd.) and intends to utilize the services of this contractor that include, but are not limited to, the following: hazardous material assessment, hazardous material removal, hazardous material transport, and hazardous material disposal. In the event a substance or material is found and was not referenced in the report, and is suspected to contain a hazardous material, Energy North will be requested to perform testing and determine if such materials are present.

Procedures/Plan

- All known areas containing HBM will be identified and the appropriate signage installed to prevent un-authorized access and to warn workers in the surrounding areas of activities taking place
- A clean room containing a wash station will be setup for workers to decontaminate
- Worker PPE includes but is not limited to:
    - Full faced hepa filtered Respirators
    - Hooded Tyvek Coveralls
    - Rubber boots/Gloves

Asbestos

- Window putty will be removed by wetting the materials with a surfactant /encapsulate material and then scraped and vacuumed
- All materials physically cleaned off will be placed in 6ml poly bags and double-bagged for disposal in the landfill

Lead

- Remaining process concentrate will be consolidated in an area and prepared for disposal (by others)
- Loose/chipped paint will be vacuumed or swept and double bagged with 6ml poly bags for disposal in landfill
- Handrail or misc. steel that is not planned to be saved or salvaged will be treated with a neutralizing spray that will ensure it is within Yukon government "leachable" standards and disposed of in landfill

Mercury

- Mercury containing light bulbs will be placed in a special lined drum designed to safely contain and crush such bulbs
- Lined drums would be labeled and transported off-site by an approved carrier authorized to transport such material and disposed of in an approved facility

Other materials on-site, including reagents, oils, solvents, and lubricants will be handled on a case by case basis and will be treated, handled, and disposed of in accordance to government regulations.

APPENDIX B

Project Report

March 31, 2014

JDS Energy and Mining Inc.

Sa Dena Hes Mine

Distribution

Maz Mohaseb – JDS Energy & Mining,
Bruce Rustad, Hatch

Mine Buildings Dismantling Plan

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1. Project Description

JDS Silver has recently purchased the Sa Dena Hes mineral processing plant and power house from Teck Resources. JDS Silver has contracted JDS Energy & Mining to perform the dismantle and demolition services. JDS has retained Hatch Ltd. to complete a structural demolition plan for the steel buildings at Sa Dena Hes. 1

2. Project Location

The Sa Dena Hes property is located approximately 50km north-east of Watson Lake, Yukon, Canada.

NTS 105A/7, 10

Latitude: 60° 35'N

Longitude: 128° 53'W

3. Scope and Intent

Three buildings at the Sa Dena Hes Mine plantsite will be dismantled. The buildings are the Crusher Building, the Power House Building and the Concentrator Building. The intent of the dismantled buildings will be to ship them to a new site and be reassembled for reuse.

The scope of the building dismantling plan only involves structural steel. The scope does not include the removal of electrical equipment and wiring, piping, mechanical equipment, HVAC equipment and concrete work.

4. Basis of Building Condition and Assumptions

The buildings are in good condition and have been erected and installed as designed in accordance with the listed drawings. A structural assessment of the buildings will be conducted and the assessment report will be made available for review prior to the commencement of dismantling operations. The engineer of record for the dismantling plan is to review the assessment report to determine if there are any deficiencies that will affect the dismantling plan prior to the commencement of dismantling operations as presented herein.

All electrical, piping, HVAC, mandoors, equipment doors and a much of the equipment as physically possible will have been removed prior to the commencement of dismantling the buildings and is not in the scope of this dismantling plan.

5. Safety

All work must be conducted safely and in accordance with the JDS Energy & Mining Inc., Sa Dena Hes Mine, Health and Safety Plan revised March 2014. Extra attention shall be paid to Section 21 Building Demolition and Section 19.39 High Winds.

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6. Structural Integrity

The JDS Energy and Mining Inc. appointed Construction Manager or approved deputy will constantly monitor the work particularly in regards to the structural integrity of the remaining building structure during dismantling.

7. Match Marking and Templates

All components of the building to be matched marked according to the JDS approved Contractor's Match Marking Procedure prior to the commencement of dismantling, Templates to be made of each base plate to aid in casting of foundations in the new location. Anchor rod sizes, locations and details to be recorded.

8. Documentation of Damages and Deviations to Drawings

During the dismantling process, all cutting of structural steel, damages and deviations from the drawings will be documented and recorded for details and locations.

9. Available Reference Drawings

A list of available reference drawings are tabulated in Appendix A. These drawings are referred to in the dismantling plan. If a copy of the drawings are needed, please request them from JDS Energy and Mining Inc.

10. Reference Drawings for the Crusher Building Dismantling Plan

Reference drawings used for the Crusher Building Dismantling Plan include Kilborn Project No. 3699-17 Drawings 090-10-001, 090-10-002, 090-14-001 and 090-14-003 to 090-014-007 inclusive. A listing of these available reference drawings are found in Appendix A.

11. Dismantling Plan for the Crusher Building

Refer to the General Arrangements Drawings 090-10-001 and 090-10-002. The sequence for dismantling the Crusher Building structural steel is to be done in the following order by either unbolting the fastening or cutting:

1. Remove the Operator Enclosure and Rock Breaker platform and supporting steel structure from above the roof level, east of Line 2 and between Lines A and B. (Dwg. 090-14-005 Plan – Top of Hopper)
2. Remove the Conveyor transfer platform and supporting structure outside the building east of Line 4.
3. Carefully remove the roof decking and wall cladding panels east of Line 2. Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.
4. Remove the wall girts and sag rods east of Line 2 on Lines A, B and 4. Remove girts and sag rods on Line 2 above the roof level at T.O.S. El. 1223.700 (L.P.). (Dwg. 090-14-007)

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5. Remove the Roof structure east of Line 2 at T.O.S. El. 1223.700 (L.P.). (Dwg. 090-14-001 Roof Plan)
6. Remove the Crane Runway and associated steel. (Dwg. 090-14-003). Leave the main steel on Lines A and B until Step 10.
7. Remove the internal platform steel at El. 1217.200 east of Line 2. Leave the main steel on Lines A, B, 2 and 4 until Step 10.
8. Remove the internal platform steel at El. 1214.200 east of Line 2. Leave the main steel on Lines A, B, 2 and 4 until Step 10.
9. Remove any remaining internal steel east of Line 2.
10. During Steps 6, 7, 8, and 9, structural steel on Lines A, B and 4 may be removed from the top down but no steel can be removed below an elevation until all the horizontal steel from Steps 6, 7, 8 or 9 for that particular elevation has been removed. Alternatively, Step 10 can be done after Steps 6, 7, 8 and 9 has been completed. (Dwg. 090-14-007)
11. Remove the Columns on Lines 4 then on Line 3. Step 11 may be incorporated into Step 10 for stability purposes.
12. Remove the structural steel stair structure north of Line A. (Dwg. 090-14-007)
13. Remove the dump hopper grizzly and the dump hopper walls and bottom. (Dwgs. 090-14-004, 090-14-005 and 090-14-006)
14. Remove the truck ramp. (Dwg.090-14-004)
15. Carefully remove the remaining wall cladding panels and girts on Line 1x and Lines A and B between Lines 1x and 2 below the hopper level. (Dwg. 090-14-007).
16. Remove the internal horizontal platforms in the area bounded by Lines 1x, A, 2 and B. Remove from the top down. Leave the main steel on Lines A, B, 1x and 2 until Step 17.
17. Remove the structural steel on Lines 2, A, B and 1x/1. (Dwg.090-14-007)
18. Remove the Columns on Line 2 then on Line 1x/1. Step 18 may be incorporated into Step 17 for stability purposes.

12. Reference Drawings for the Power House Building Dismantling Plan

Reference drawings used for the Power House Building Dismantling Plan include Kilborn Project No. 3699-17 Drawings 360-10-001, 360-12-003, 360-12-004 and 360-14-001. A listing of these available reference drawings are found in Appendix A.

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13. Dismantling Plan for the Power House Building

Refer to the General Arrangement Drawing 360-10-001. The building is noted as being based on ‘Graco” pre-fabricated building. There are no structural steel drawings available for the building. The dismantling plan will describe what is typical utilized in such a pre-fabricated building of the size and nature as depicted on the general arrangement drawing. The sequence for dismantling the Power House Building structural steel is to be done in the following order by either unbolting the fastening or cutting:

1. Remove the Exhaust Silencer support structures which are located outside, south of Line PE. (Dwg. 360-10-001)
2. Remove the Remote Cooling Radiator support structure and highway type barriers which are located outside, south of Line PE. (Dwg. 360-10-001)
3. Remove the Air Handling Unit support platform structure from inside the building located in an area bounded by Lines P1, PC, P2 and PD. (Dwg. 360-14-001)
4. Carefully remove the wall cladding panels working from west (Line P1) to east (Line P5). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.
5. Carefully remove the roof decking panels working from west (Line P1) to east (Line P5). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.
6. Remove the roof purlins working from west to east.
7. Remove the wall girts working from west to east.
8. Remove the primary building structural steel from the roof between Lines P1 and P2.
9. Remove the primary building structural steel from the wall on Line P1 working from the top down, then from the wall on Line PA between Lines P1 and P2 from the top down and finally from the wall on PE between Lines P1 and P2 from the top down
10. Remove the primary building rigid frame and wind posts from Line P1.
11. Repeat Steps 8 and 9 for the primary building structural steel between Line P2 and P3.
12. Remove the primary building rigid frame on Line P2.
13. Repeat Steps 8 and 9 for the primary building structural steel between Line P3 and P4.
14. Remove the primary building rigid frame on Line P3.
15. Repeat Steps 8 and 9 for the primary building structural steel between Line P4 and P5.
16. Remove the primary building structural steel from the wall on Line P5 from the top down.
17. Remove the primary building rigid frame on Line P4.
18. Remove the primary building rigid frame and wind posts from Line P5.

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14. Reference Drawings for the Concentrator Building Dismantling Plan

Reference drawings used for the Concentrator Building Dismantling Plan include Kilborn Project No. 3699-17 Drawings 240-10-001 to 240-10-007 inclusive, 240-14-001 to 240-14-012 inclusive, 240-14-017 to 240-14-020 inclusive, 240-14-022 to 240-14-025 inclusive and 240-14-029.

15. Dismantling Plan for the Concentrator Building

Refer to the General Arrangement Drawings 240-10-001 to 240-10-007 inclusive. The sequence for dismantling the Concentrator Building structural steel is to be done in the following order by either unbolting the fastening or cutting:

1. Remove the Coarse Ore Storage Bin, its supporting steel and surrounding access steel from the top down west of Line 1 in the area bounded by Lines B, 1, E and 1Ay. (Dwgs. 240-10-001, 240 14-008 and 240-14-012). Do not remove any primary building steel from Line 1.
2. Remove the interior steel from Electrical Room No. 1 which is located in an area bounded by Lines 2, Ax, 4 and A. (Dwgs. 240-10-001 and 240-14-008). Do not remove any primary building steel from Lines 2, Ax, 3 and A.
3. Remove interior platform steel within the grinding portion of the building. This area is bounded by Lines 1, A, 5 and H. (Dwgs. 240-10-001, 240-10-002, 240-10-003, 240-14-001, 240-14-002, 240-14-007, 240-14-008 and 240-14-017). Work from the top down and from east to west. Leave the crane runway structure until Step 7. Do not remove any primary building steel from Lines 1, A, 5 and H. Remove interior elevation steel and columns after all horizontal steel attached to it has been removed and it is not providing structural integrity to other parts of the interior steel in this area.
4. Carefully remove the wall cladding panels and girts west of Line 5 from Lines A, 4, Ax, 2, 1 and H. Also on Line 5 above the flotation portion roof elevation. (Dwgs. 240-14-005 and 240-14-006). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.
5. Carefully remove the roof decking panels above Electrical Room No. 1, north of Line A between Lines 2 and 4. (Dwgs. 240-10-004 and 240-14-003). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.
6. Remove the building steel for Electrical Room No. 1 working from the roof down by removing the roof level steel, then the wall steel on Lines Ax, 2 and 4 and then the Columns at Lines Ax-2, Ax-3 and Ax-4.

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7. Remove the building steel in the grinding portion of the building from Line 1 to west of Line 5 working from north to south and working one bay at a time. (Dwgs. 240-10-004 and 240-14-003 to 240-14-006 inclusive). Do not remove any primary building steel from Line 5. For each bay, remove the roof steel, then the wall steel from the top down, remove the crane runway steel as work progress down the wall at its appropriate sequence according to the crane runway elevation and finally remove the columns. Steel on Line H will be the last to be removed.

8. Remove the interior platforms and flotation cell support steel within the flotation portion of the building. This area is bounded by Lines 5, A, 11 and H. (Dwgs. 240-10-001, 240-10-002, 240-10-003, 240-14-001, 240-14-002, 240-14-018, 240-14-019, 240-14-022, 240-14-023 and 240-14-024). Work from the top down and from west to east. Leave the crane runway structure until Step 12. Do not remove any primary building steel from Lines 5, A, C, 11 and H. Remove interior elevation steel and columns after all horizontal steel attached to it has been removed and it is not providing structural integrity to other parts of the interior steel in this area.

9. Carefully remove the wall cladding panels and girts from Line 5 to west of Line 11 from Lines A, 7, Ax, 9 and H. (Dwgs. 240-14-005 and 240-14-006). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.

10. Carefully remove the roof decking panels above Electrical Room No. 2, north of Line A between Lines 7 and 9. (Dwgs. 240-10-004 and 240-14-003). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.

11. Remove the building steel for Electrical Room No. 2 working from the roof down by removing the roof level steel, then the wall steel on Lines Ax, 7 and 9 and then the Columns at Lines Ax-7, Ax-8 and Ax-9.

12. Remove the building steel in the flotation portion of the building from Line 5 to west of Line 11 working from west to east and working one bay at a time. (Dwgs. 240-10-004 and 240-14-003 to 240-14-006 inclusive). Do not remove any primary building steel from Line 11. For each bay, remove the roof steel, then the wall steel and Line C steel from the top down, remove the crane runway steel as work progress down the wall at its appropriate sequence according to the crane runway elevation and finally remove the columns.

13. Remove the portion of the building north of Line A between Lines 12 and 13. (Dwgs. 240-10-001, 240-10-002, 240-14-001, 240-14-002, 240-14-003, 240-14-005, 240-14-008 and 240-14-011). Do not remove any primary steel from Line A. Sequentially remove the wall cladding panels and girts, the roof decking panel, the roof level steel, interior platform steel, the primary building wall steel and columns.

14. Remove the portion of the building south of Line H between Lines 12 and 13. (Dwgs. 240-10-001, 240-10-002, 240-14-001, 240-14-002, 240-14-003, 240-14-005 and 240-14-011). Do not remove any primary steel from Line H. Sequentially remove the wall cladding panels and girts, the roof decking panel, the roof level steel, interior platform steel, the primary building wall steel and columns.

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15. Carefully remove the wall cladding panels and girts from Lines 11, H, 13 and A. (Dwgs. 240-14-005, 240-14-006 and 240-14-011). Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.

16. Carefully remove the roof decking panels for this remaining portion of the building bounded by Lines 11, H, 13 and A. (Dwgs. 240-10-004 and 240-14-003). Work from south to north. Material to be packaged for re-use if deemed to be in good condition by the Construction Manager.

17. Remove the structural steel in the area bounded Lines 11, H, 13 and A. (Dwgs. 240-10-001, 240-10-002, 240-10-004, 240-14-001, 240-14-002, 240-14-003, 240-14-005, 240-14-006, 240-14-008, 240-14-009, 240-14-011, 240-14-019, 240-14-020, 240-14-026 and 240-14-029). Remove using either "Method A" by removing a complete level of steel from the top down working from Line 11 to Line 13 and from Line H to Line A and leaving the primary steel on the main lines until the elevation steel is ready to be removed. After all the platform steel and tanks have been removed, then remove the primary building steel followed by the columns. Or using "Method B" by removing all the structural steel in one bay between Lines 11 and 13 before moving to the next bay while still working from the top down and from south to north.

March 31st/2014

Henry Wong
HHW:dmb
Attachment
Appendix A: Available Reference Drawings

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Appendix A:
Available Reference Drawings

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Appendix A – Reference Drawing List

A copy of the available reference drawings if needed can be requested from JDS Energy and Mining Inc.

The Reference Drawings are from Kilborn Engineering, Project No. 3699-17 for Mt. Hundere Joint Venture

General Steel Drawings

Drawing No.	Rev.	Title	Date Issued
100-14-001	0	Lead/Zinc Concentrator Structural Steel General Notes and Typical Details, Sheet No. 1	Sep. 10, 1990
100-14-002	0	Lead/Zinc Concentrator Structural Steel General Notes and Typical Details, Sheet No. 2	Sep. 10, 1990

Crushing Building Drawings

Drawing No.	Rev.	Title	Date Issued
090-10-001	2	Lead/ Zinc Concentrator Primary Crusher Station, General Arrangement Plans	Feb. 8, 1991
090-10-002	2	Lead/ Zinc Concentrator Primary Crusher Station, General Arrangement Sections A-A, B-B, C-C & D-D	Feb. 8, 1991
090-14-001	1	Lead/ Zinc Concentrator Primary Crusher Station, Structural Steel Anchor Bolt and Roof Plan, Column Base Details	Jan. 11, 1991
090-14-003	0	Lead/ Zinc Concentrator Primary Crusher Station, Structural Steel Crane Runway Plans and Details	Dec. 14, 1990
090-14-004	3	Lead/ Zinc Concentrator Primary Crusher Station, Structural Steel Truck Ramp and Grizzly, Plan, Section & Details	Feb. 19, 1991
090-14-005	3	Lead/ Zinc Concentrator Primary Crusher Station, Structural Steel Dump Hopper, Plans, Elevations & Details	May 29, 1991
090-14-006	1	Lead/ Zinc Concentrator Primary Crusher Station, Structural Steel Dump Hopper, Rail Liners Arrangement	Feb. 4, 1991
090-14-007	2	Lead/ Zinc Concentrator Primary Crusher Station, Structural Steel Elevations and Stair Details	May 29, 1991

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Concentrator Building Drawings

Drawing No.	Rev.	Title	Date Issued
240-10-001	3	Lead/Zinc Concentrator Concentrator, General Arrangement Ground Floor Plan	Apr. 23, 1991
240-10-002	3	Lead/Zinc Concentrator Concentrator, General Arrangement Plan at El.1204.200	Mar. 15, 1991
240-10-003	2	Lead/Zinc Concentrator Concentrator, General Arrangement Plan at El.1208.000	Feb. 1991
240-10-004	2	Lead/Zinc Concentrator Concentrator, General Arrangement Plan at El.1215.000	Feb. 1991
240-10-005	3	Lead/Zinc Concentrator Concentrator, General Arrangement Sections A-A, B-B	Apr. 23, 1991
240-10-006	3	Lead/Zinc Concentrator Concentrator, General Arrangement Sections C-C, D-D, E-E & F-F	Mar. 15, 1991
240-10-007	4	Lead/Zinc Concentrator Concentrator, General Arrangement Sections G-G, H-H & J-J	Apr. 23, 1991
240-14-001	5	Lead/Zinc Concentrator Concentrator, Structural Steel Anchor Bolt Plan & Details	Feb. 4, 1991
240-14-002	5	Lead/Zinc Concentrator Concentrator, Structural Steel Column Schedule	Feb. 4, 1991
240-14-003	6	Lead/Zinc Concentrator Concentrator, Structural Steel Roof Plan	Mar. 26, 1991
240-14-004	1	Lead/Zinc Concentrator Concentrator, Structural Steel Crane Runway Plans and Details	Oct. 23, 1990
240-14-005	4	Lead/Zinc Concentrator Concentrator, Structural Steel Elevations Sheet 1	Apr. 8, 1991
240-14-006	5	Lead/Zinc Concentrator Concentrator, Structural Steel Elevations Lines 1, 5, 11, 2, 4, Ax & C	Mar. 21, 1991
240-14-007	1	Lead/Zinc Concentrator Concentrator, Structural Steel Platform at El. 1208.000	Apr. 3, 1991
240-14-008	8	Lead/Zinc Concentrator Concentrator, Structural Steel Platforms – El. 1197.976, 1204.600, 1205.000 …	May 7, 1991
240-14-009	1	Lead/Zinc Concentrator Concentrator, Structural Steel Stairs	Jan. 22, 1991
240-14-010	2	Lead/Zinc Concentrator Concentrator, Structural Steel Stairs	May 7, 1991

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Drawing No.	Rev.	Title	Date Issued
240-14-011	4	Lead/Zinc Concentrator Concentrator, Structural Steel Elevations Lines 12 & 12x, 13 & 12z and Details	May 7, 1991
240-14-012	2	Lead/Zinc Concentrator Concentrator, Structural Steel Plans, Sections and Details	Apr. 23, 1991
240-14-017	3	Lead/Zinc Concentrator Concentrator, Structural Steel Platform at El. 1204.200	Mar. 21, 1991
240-14-018	2	Lead/Zinc Concentrator Concentrator, Structural Steel Platform at El. 1203.600, 1204.600, 1204.990, …	Mar. 14, 1991
240-14-019	3	Lead/Zinc Concentrator Concentrator, Structural Steel Platform at El. 1203.400, 1209.100, 1207.600	Apr. 4, 1991
240-14-020	4	Lead/Zinc Concentrator Concentrator, Structural Steel Platform at El. 1211.000 & El. 1215.200	Apr. 17, 1991
240-14-022	0	Lead/Zinc Concentrator Concentrator, Structural Steel Flotation Cell Supports	May 14, 1991
240-14-023	1	Lead/Zinc Concentrator Concentrator, Structural Steel Platform at El. 1202.400 & El. 2104.651	May 5, 1991
240-14-024	0	Lead/Zinc Concentrator Concentrator, Structural Steel Support for rougher Flotation Cells, Launders Plan, Sections & Details	Feb. 15, 1991
240-14-025	0	Lead/Zinc Concentrator Concentrator, Structural Steel Concentrator Truck Scale, Platform at El. 1195.400 Plan, Sections & Details	May 18, 1991
240-14-029	x	Lead/Zinc Concentrator Concentrator, Structural Steel Plans	Jan. 7, 1991

Power House Building Drawings

Drawing No.	Rev.	Title	Date Issued
360-10-001	1	Lead/ Zinc Concentrator General Arrangement, Power House Plan & Sections A-A, B-B & C-C	Mar. 27, 1991
360-12-003	1	Lead/ Zinc Concentrator Diesel Generator Plant, Power Plant and Heat Recovery System, Sections	May 17, 1991
360-12-004	1	Lead/ Zinc Concentrator Diesel Generator Plant, Heating and Ventilation Plans and Diagrams	May 17, 1991
360-14-001	0	Lead/ Zinc Concentrator Power House, Air Handling Unit Support Platform at Fin. Fl. El. 1203.700 (T.O.G.)	May 6, 1991

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APPENDIX B

JDS HEALTH AND SAFETY PLAN

SA DENA HES MINE

HEALTH AND SAFETY PLAN

(This Plan developed for use during the Dismantling and Relocation Phase)

JDS Energy and Mining Inc.
200-532 Leon Avenue
Kelowna, BC, V1Y 6J6
(250) 763-6369

Plan Revised March 2014

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1 Definitions, Terms, Abbreviations, & Acronyms

ANSI—American National Safety Institute

Competent—able to complete a task or job safely with little or no direct supervision due to having sufficient training, knowledge and experience.

Contractor—For the purposes of this document only, all business defined work groups other than JDS, present on the work site irrespective of contractual agreements. This definition includes approved subcontractors to contractually obligated company or corporate entities.

CSA—Canadian Standards Association

Demolition—The complete or partial dismantling or destruction of a building or structure (e.g., vessel, tank, etc.), by planned and controlled methods or procedures.

Employer—Any company, corporation or similar entity engaged in the direct hiring of individuals for the purposes of work. This includes “the owner”, Contractors and Subcontractors.

Employee—A worker engaged, on behalf of an employer, in activities on the work site.

JHA—Job Hazard Analysis—a method of whereby a task, job or other scope of work is analyzed step by step, the hazards with each step are identified and quantified as a Low, Medium or High Risk, and the hazards are mitigated with controls.

JDS—JDS Energy & Mining Inc.

Legal—Any and all federal, provincial, or territorial regulations, laws, or other governing rules whose intent in their existence requires compliance to allow for safe and secure working conditions and competent personnel.

NIOSH—National Institute of Occupational Health and Safety

NRR—Noise Reduction Rating

Project—The Project consisting of all activities at the Sa Dena Hes mine site.

Regulation(s)—Any federal, provincial, or territorial act, legislation, law, or regulation that is applicable in a given jurisdiction and has a binding effect on the way JDS does business.

Regulatory body—Any federal, provincial, or territorial group or agency whose rules, laws or direction has a binding effect on the way JDS does business.

SWP – Safe Work Plan

Worker—Any and all individuals on the work site, irrespective of their job description or position.

2 Purpose

The Sa Dena Hes Dismantling and Demolition Project, hereinafter referred to as the “Project, is committed to ensuring activities are conducted in a manner that will protect the health and safety of their employees, representatives, contractors and the public as well as property and the environment. The Project requires all workers, regardless of their direct employment affiliation, to maintain stringent safety standards in the conduct of their work.

This Safe Work Plan has been developed as a reference source for working on the Project but shall not be used to supersede any applicable federal, provincial, or territorial legislation. This plan is not a stand-alone document. It is supported by the JDS Health & Safety Manual, Safe Operating Procedures, Forms, and Project Risk Assessments.

Project Management and Contractors will be expected to promote good safety practices and ensure that their employees are aware of and comply with all safety requirements of this plan as well as all applicable health and safety regulations.

3 Performance Standard

No job is so urgent that it cannot be done safely. Unsafe conditions and/or work practices are not acceptable at the Sa Dena Hes Mine Site and must be resolved before work can continue.

Project management will not allow Contractors to work on the Project who show wilful disregard for Health and Safety requirements. Project management and Contractor management will not allow an individual worker with disregard for the health and safety requirements to continue working on the Project.

4 Goals and Objectives

The objectives of this Safety Program and Plan are to:

- Create and maintain a safe working environment on the Sa Dena Hes worksite; and
- Minimize the potential for accidents or injuries, or other loss to property or the environment, thus maximizing job productivity.

5 Contractors and Subcontractors

Contractors are required to comply with all Legal requirements at all times. Contractors employed on the Sa Dena Hes site shall not engage sub-contractors to do any on-site work without the specific consent of JDS Management representatives.

6 Roles and Responsibilities

The following represents the roles and responsibilities of the JDS Project Management. All Contractors must have a similar Roles and Responsibilities section in their Contractor Health and Safety Plan. Everyone on the Sa Dena Hes site, regardless of their Employer has the role and responsibilities as dictated under "6.7 Roles and Responsibilities—All Workers".

6.1 President – Kevin Mather

The President of the Project is responsible for the health & safety of the Project except whereby Legal preclusions abdicate such responsibility but shall:

- Annually review the company Health, Safety & Environmental Policies as applicable.
- Provide the necessary resources for the implementation, operation and improvement of the Health & Safety programs.
- Review ongoing reports and monthly statistics and implement appropriate corrective actions where safety issues are present or goals are not being met, from a corporate perspective.

6.2 Vice President - Gord Bussieres

The Vice President is responsible for the health & safety of the Project and shall:

- Ensure that the Project's operations comply with contractual, regulatory and legislative requirements.
- Assist with providing the necessary resources for the implementation, operation and improvement of the Health and Safety programs.
- Ensure that responsibilities of Project personnel have been communicated, and information has been provided to protect the health and safety of all workers at the worksite.
- Ensure that all applicable Acts, Codes, Regulations and local laws applicable to the Project are maintained.
- Reviews ongoing reports and monthly statistics and implements appropriate corrective actions where safety issues are present, or goals are not being met, from a corporate perspective.
- Conduct at least one worksite Inspection every 6 months.
- Immediately notify the President of all critical or serious accidents, incidents and/or injuries (Personal Injuries, Property Damage, Loss of Process and Damage to the environment).

6.3 Project Manager - Randy Brodziak

The Project Manager will set the culture for the project by leading the team in a “safety first” philosophy. The Project Manager is responsible to:

- Ensure that a Project Safety Program is in place and operating within contractual requirements, Acts, Codes, regulation and laws specific to the project.
- Ensure availability of Health and Safety information, instruction and materials to all Project entities including employees and Subcontractors.
- Ensure that all contractors have completed the “Sub-Contractor Pre-Qualification Form” and any deficiencies have been addressed.
- Ensure that all contractors and sub-contractors who perform high risk activities have a health & safety program.
- Conducting at least one worksite Inspection per month.
- Immediately notify the Vice President of all critical or serious accidents, incidents and/or injuries (Injuries, Property Damage, Loss of Process and Damage to the environment).

6.4 Construction Managers - Kevin Whieldon and Sven Archimowitz

In the absence of a Project Manager, the Construction Manager will assume the responsibilities of the Project Manager. In addition the Construction Manager is responsible to:

- Ensure implementation and maintenance of the established health safety and environmental program on all projects and operation work sites.
- Ensure that joint health & safety committees have been established and maintained when required.
- Ensure properly maintained tools, equipment, and personal protective devices are used by employees and Contractors.
- Ensure that all training requirements have been met.
- Provide guidance to all Contractors in order to protect the health and safety of all workers on the project, including the implementation and following of Safe Work practices and procedures.
- Coordinate incident/accident investigations on site in conjunction with the JDS Health & Safety Coordinator and Contractors involved.
- Immediately notify the Project Manager of all accidents, incidents and/or injuries (Injuries, Property Damage, Loss of Process and Damage to the environment).
- Monitor projects and hold workers and trades accountable for their individual safety performance.
- Ensure that safety audits are conducted.
- Participate in safety meetings.

6.5 Health & Safety Manager - Ian Kopp

The Safety Coordinator is responsible for promoting awareness and coordination of the health and safety activities on the Project by:

- Ensuring all New Employee and Contractors attend a General Site Orientation.
- Ensuring that workers are aware of general worksite hazards and those workers and Contractors have implemented adequate controls.
- Post or provide copies of the local applicable legislation and safety information in a common location for worker access.
- Ensuring that the WHMIS program is current and that the controlled products inventory is on site and accessible to workers who may be exposed to potentially to hazardous material in their workplace.
- Participating and cooperating with the Joint Health & Safety Committee or taking on the roles and responsibilities of the committee should one not exist.
- Ensuring Safety Meetings are held.
- Produce weekly, monthly and yearly safety statistics for management review.
- Ensuring an adequate Emergency Response Program is in place and functioning.
- Distributing the Emergency Response Plan to all workers
- Ensuring that the Emergency Response Plan is reviewed and revised.

6.6 Supervisors / Construction Coordinators

These front line supervisors control the integration of HSE Program into the day to day site activities. Their responsibilities include:

- Ensure adequate availability of health and safety information, materials and assistance to all Contractors in addition to instruction of employees under their control.
- Ensure that this Safety Program and all applicable contract requirements, Acts, Codes, Regulations and Laws are implemented by all Project employees and Contractors.
- To provide guidance upon request or inspection to Contractors of any potential or actual dangers and how to isolate, prevent, or remove them. Report safety issues to the Construction or Mining Manager where an employee or Contractor is in violation of good safety practices, rules or other Legal requirements and refuses to implement Corrective Action.
- Ensure that all employees are properly trained prior to executing any work and that Contractors are providing such training to their employees.
- To ensure weekly inspections of the workplace are carried out on Construction sites and that Contractors are completing daily Inspections of their work areas on the Mine Site. Such Inspections should include tools, equipment& work-practices/procedures to ensure a safe and healthy environment.

- Ensure that employees and Contractor workers use or wear proper equipment, protective devices, or protective clothing as required.
- Report all accidents/incidents immediately, to the Construction or Mining Manager as applicable.
- Assist Contractors and the Site Safety manager in the investigation of all accidents/incidents fully.
- Advise management and Contractors on how to prevent similar accidents/incidents in the future.
- Conduct daily, on-site Toolbox Talks with employees under their direction or otherwise ensure such employees are attending a relevant Contractor Toolbox Talk.
- Accompany, or appoint an individual to accompany, an injured employee to medical facilities to receive medical attention.

6.7 All Workers (All Project and Contractor Personnel)

All personnel, regardless of position or job description are responsible and accountable for the following:

- Show up “Fit for Work” including being well rested, free of the effects of legal (prescription and non-prescription) and illegal drugs (Zero tolerance), free of the effects of alcohol, and in generally good health.
- Know and abide by the rules and regulations.
- Know and comply with the requirements of this Health & Safety Plan.
- Follow Safety Absolutes and Safety Rules.
- Consult their Material Safety Data Sheets regularly and ensure they have received proper training prior to using hazardous chemicals.
- Perform work activities in a manner that will not endanger themselves or other workers on the work site, or members of the public while conducting any work related activities.
- Utilize, in the proper fashion, safety equipment and personal protective devices and/or clothing required by regulations and this Health and Safety Program.
- Do not operate any equipment or machinery unless you are authorized and trained to do so.
- Inspect all tools, equipment, and protective devices prior to use.
- Report any defects in equipment, devices, unsafe actions, conditions or practices to Supervision or Management.
- Immediately report all accidents, injuries, and/or near misses to the Project Superintendent or Project Construction/Mining Manager.
- Other such roles and responsibilities as dictated by your immediate employer and as dictated by Health and Safety requirements.
- Know the Emergency Response Plan and their Roles and Responsibilities within it.
- ASK QUESTIONS IF YOU DON’T KNOW OR HAVE CONCERNS.

7 Discrimination, Workplace Harassment, and Violence

Discrimination for any reason, against individuals or groups, will not be tolerated on the Sa Dena Hes Project. Harassment for any reason, against individuals or groups, will not be tolerated. All persons have the right to be treated with dignity and respect and all personnel are expected to conduct themselves in an appropriate manner. All personnel shall report any incident of discrimination, harassment or violence in the work place to their immediate supervisor and such incidents shall be fully investigated by appropriate parties. No Project workers shall engage in any type of violence with other project personnel or any member of the public. Instigating violence is a cause for immediate termination or removal from the worksite. Violence includes verbal threats or threatening actions.

Workers will not be discriminated against for reporting of safety hazards, risks, or concerns. Workers shall be encouraged to report such issues for address and possible corrective action implementation.

8 Risk & Hazard Assessment

Many of the dismantling and demolition activities on the Sa Dena Hes Project are considered "high" risk for safety purposes. Some jobs within this definition have "higher" risk than others. It's important that supervision and management understand the risk and appropriately allocate time and resources to those activities which have the highest risk. All incidents occur as the results of Hazards which have an "effect" on workers' health and safety, property or the environment. Such hazards may be known or unknown and recognized or unrecognized or a combination of these. It is important that workers understand what hazards are, how to decide if such hazards pose risk to their own or others' health and safety, and how to ensure those hazards do not cause an incident.

8.1 Project Risk Assessments (PRA)

Each employer is responsible for supplying a Risk Assessment of their scope of work prior to mobilizing onto the work site. The Risk Assessment is a higher-level review of the work to be completed as broken into the various jobs and then broken down further into the Tasks required to complete the work. Each task is quantified either numerically or on a similar sliding scale from Low to High risk based on the subjective expertise of the contractor. Each task must have a mitigation or control factor.

8.2 Job Hazard Analysis (JHA)

Each employer is responsible for having Safe Operating Practices (SOPs) for each scope of their work on the work site. Where an SOP does not exist, a Job Hazard Analysis (JHA) must be completed. A JHA, follows a similar format to the Risk Assessment but breaks down a “job” into more detailed tasks; it is a systematic way of evaluating potential hazards and ensuring controls or mitigation is put in place for each potential hazard. A JHA form is available for use by Contractors as a method of Job Risk Assessment and ensuring that, prior to undertaking a scope of work, sufficient planning and controls are in place.

8.3 Field Level Risk Assessment (FLRA)

This process is also known as SLAM (Stop, Look, Analyze, Manage) within the mining industry. In either case, the process is the same. Contractors shall implement and review on a regular basis the hazard assessment process to be used by individuals (FLRA/SLAM) with employees. Hazard assessment processes may be documented or undocumented at the worker level, but any review with work groups of the process in Toolbox Talks or during Safety Meetings must be documented.

8.4 Engineering Investigation

In situations where:

- earthmoving machinery is to be used on suspended floors (Not Applicable at Sa Dena Hes)
- there is doubt concerning the design of the structural arrangements (Not Applicable at Sa Dena Hes)
- the structure has been weakened by deterioration, fire or other causes (Not Applicable at Sa Dena Hes)
- special buildings (Not Applicable at Sa Dena Hes)

then an engineering investigation must be carried out. The investigation must be carried out by a qualified structural engineer experienced in the design and construction of reinforced concrete and/or pre-stressed concrete as appropriate.

Prior to commencement of demolition, the structural engineer must have investigated the structure by whatever means necessary and have determined as accurately as possible:

(a) the type of structural system involved

(b) the "as-constructed" details of the component members

(c) the current load-carrying capacity of the structure

(d) whether the proposed methods and sequence of demolition can be executed without causing unpremeditated collapse of the whole or part of the structure and

(e) any other details of the structure regarding strength, construction or contents which will influence the selection or demolition procedures given in the safe work plan.

A search for engineering details specifying size, type and configuration of reinforcement and the strength of materials (if available) must be made and the located documents referenced. Floor penetrations to facilitate construction or structural irregularities need to be located and identified prior to commencement of demolition.

To eliminate any uncertainty regarding the composition or quality of structural components, it may be necessary to use one or more of the following methods:

- core drilling
- electronic reinforcement location
- exposure of reinforcement

These methods must be performed under the direction of the practicing structural engineer and any resulting loss of strength must be taken into account when ascertaining structural adequacy.

In assessing the current load-carrying capacity of structural members, the practicing structural engineer must take into account:

- the strength requirements of the relevant structural Standards current at the time of construction and the strength and loading requirements of those now current
- degradation of the original properties of the materials used due to time, weathering, wear, or other deleterious causes
- the capacity of the structure as a whole and individual members to sustain superimposed loads without:

(i) premature collapse of any member, or

(ii) deforming to an extent which will lead to static instability of the member itself or to connected members.

To allow for impact and vibration during demolition, in addition to normal ultimate load factors, to the weight of the demolition machines and the weight of the falling debris.

All phases of the proposed demolition method need to be considered in order to identify and isolate critical conditions.

Note: Much of this information should be obtainable from the plans and specifications approved by the regulatory authority at the time of construction. However, even if these are available, verification by visual inspection combined with physical investigations, such as the cutting of chases and taking of sample cores, etc. may still be required.

9 Orientation and Training

9.1 Education and Training Policy

Safety training at all levels of JDS Energy & Mining Inc. is vital to the ongoing success of our Health, Safety and Environmental program. All personnel arriving to the project work site including employees, contractors, and visitors are to be provided a site specific orientation at the time of their arrival and/or prior to commencing any work. All employees will participate in safety and related training that is necessary to minimize harm to people, environment, assets and reputation. Management will play a key role in identifying training needs. This training will include, but not be limited to:

- Safety orientations for all new hires, including contractors & visitors
- Job-specific training as required
- Identification of existing and potential hazards at the site
- Safety training for management and site supervisors
- Specialized safety and related training
- Familiarization with company policy, job descriptions, and safe operating practices
- Review written rules and responsibilities, hazard identification, and reporting of incidents
- Review of PPE use, limitations, and maintenance requirements

9.2 Site Specific Orientation

ALL PERSONNEL, prior to entry onto the Sa Dena Hes work site will be required to take the Site Specific Orientation. This will be an approximately 1 hour Orientation introducing the workers to project scope, roles and responsibilities, general worksite hazards and controls, rules, reporting and emergency response.

The Site Specific Orientation will take place on a regularly scheduled basis or as needed and will be held on site.

Visitors shall be permitted on the worksite. A specific, short-term Visitor's Orientation whose duration shall be approximately ½ hour will be available and whose prime purpose is to ensure such a Visitor is aware of the General Hazards on the worksite and the Controls required to ensure such hazards do not cause an injury, illness or property damage, including environmental damage. Visitors shall be accompanied at all times while in the mine site work area.

9.3 WHMIS Training

Each Employer and Contractor on the work site is responsible for ensuring they have an adequate WHMIS program which meets the legislated requirements. Each Employer or

contractor must ensure that all workers under their direction are adequately trained to the hazards and the controls of any and all chemicals used on the work site to which a worker may be exposed. This includes the proper use and care of PPE or specialized PPE when working with chemicals.

10 Communication

2-Way radio communication with dedicated JDS channels will be available on the mine site location only. Contractors may use these channels by having them programmed into their own 2-way programmable radios with permission of the Construction manager for the sole purpose of coordinating channel use.

10.1 Communication with the Media

Any communication with the press or news media regarding the project shall be conducted through JDS Senior Management. No Contractor or worker shall issue statements or opinions based on any activity or incident without prior, written consent from JDS Senior Management.

10.2 Hand Signals

Hand signals may be used. Prior to using hand signals, workers must be informed of how and what hand signals are to be used to clarify their use.

11 Permits

Permits will be required for all “high risk” work on the Sa Dena Hes Project. They will be required for:

- All “confined space” work
- All work within 10 metres of an electrical facility, sub-station, transformer, or other high potential electrical facility, including overhead power lines as it pertains to non-insulated electrical cables and systems, typically of the “overhead” type, and as it pertains to non-electrically, professionally trained personnel.
- All “hot work” within 15 metres of any flammable storage area. Hot work shall include the use of open flame, welding, cutting or grinding.
- All ground disturbance work.

12 Toolbox Talks (Daily Safety Meetings)

Daily Toolbox Talks are intended to ensure that complete shift planning is achieved related not only to the day's activities but also to the hazards that may be encountered during the activities and the controls (hazard removal, engineered out, administrative) that need to be put in place to ensure workers do not suffer an occupational injury or illness or that property or the environment are not damaged.

A Toolbox Talk is required at least once per shift by all employers and work groups on the Project. If activities change significantly due to unplanned changes it is expected that work-groups will complete additional Toolbox Talks as necessary to ensure the Health and Safety of workers, property and the environment. Supervisors must ensure adequate transfer of information between day-shift and night-shift crews.

13 Safety Meetings (Weekly Safety Meetings)

Safety Meetings are intended to ensure all pertinent site safety material, including incident review, is uniformly distributed to all work groups on site, and to raise the overall level of awareness and culture on the worksite through continuous review and improvement of ongoing safety initiatives, including training.

A record of the Safety Meeting shall be maintained and workers shall sign off as having attended and understood the Safety Meeting. A copy of the Safety Meeting and any supporting documentation (hand-outs, safety alerts, best practices reviewed, and training material) shall be submitted to the site safety department within 24 hours of completion of the meeting.

14 Inspections & Audits

Inspections of each working area will be conducted by each employer at least once per week on the Sa Dena Hes Project. They shall include the items that were noted that were in compliance with all regulations as well as those which were in non-compliance. For non-compliance issues, no worker shall be allowed to work where the safety of any workers is compromised until such time as the non-compliance issue is brought into compliance.

15 Fit for Work

All workers shall report to work each shift "fit for work". They shall be free of the effects of all drugs and alcohol, shall be well rested and nourished, and shall keep their mind on their task.

15.1 Drugs and Alcohol

Intoxicating beverages and narcotics shall not be permitted or used in or around mines. Persons under the influence of alcohol or narcotics shall not be permitted on the job. Workers are subject to their Employer's Drug and Alcohol Policy and Programs and shall be, as a minimum, subject to the following Project Policy.

There is a zero tolerance for possession of illegal drugs, including prescription medication illegally obtained, or alcohol on the work site. Any worker found to be in possession of illegal drugs or alcohol on the work site must be removed immediately by the worker's employer. Any worker removed from the work site as a result of non-compliance with this paragraph's intent will not be allowed back onto the work site for a period of one year unless granted re-access by the Project VP or President.

Any worker suspected of being under the influence of illegal drugs or alcohol will be subject to their Employer's Drug and Alcohol Policy & Program which may include probable cause/reasonable suspicion guidelines for testing.

Workers must tell their Employer if they are on prescription medication which may directly or indirectly affect their own or others' Occupational Health and Safety on the worksite.

Workers taking Over-The-Counter (OTC) non-prescription medication shall read and follow the directions on the label. Where the medication may directly or indirectly affect their own or others' Occupational Health and Safety on their work site, the worker must tell his or her Employer about the medication. The Employer is required to ensure the Worker reporting the issue is not placed into a situation where any worker's Occupational Health and Safety is compromised on the work site. Project management may assist an Employer with any decision regarding this scenario.

16 Security

Workers must comply with all direction from management personnel when entering the Sa Dena Hes site, while on the work site, or while exiting the work site. Failure to follow direction when entering a work site shall constitute a denial of access.

The Project reserves the right to search the personal belongings of any worker entering, exiting or while on any work site.

Workers shall be made aware of Security protocol during General Site Orientation. Should any worker not agree to comply with the above, they will not be authorized to enter onto Project worksites.

16.1 Prevention of Unauthorized Entry

Sufficient hoarding and barricades will be erected to prevent accidental or unauthorized entry to demolition sites. Safety warning signs bearing the warning:

- "Danger Demolition Work" or something similar must be fixed in positions where they will be readily visible to persons approaching the site.

Where appropriate, safety warning signs bearing the warning:

- "All Persons Entering Site Must Report to the Site Office" must be fixed in positions where they will be readily visible to persons approaching the site.

17 Safety Absolutes and Safety Rules

The following rules are considered to be serious violations of the JDS HSE Program. Non-compliance with these work site policies and Safe Operating Practices will result in immediate discipline, up to and including immediate removal from site and termination of employment. These Safety Absolute violations are as follows:

1. Non-compliance with work at height/fall protection requirements
2. Violation of energy isolation (Lockout/Tag Out) practices and procedures
3. Violation of confined space practices and procedures
4. Standing under a suspended load
5. Not following site permitting requirements
6. Operating equipment without authorization
7. Intentionally polluting or damaging the environment
8. Blatant disregard for imminent danger
9. Fighting, horseplay or vandalism
10. Use of illegal drugs or alcohol
11. Tampering with safety devices or emergency response equipment
12. Smoking in any unauthorized area

18 Safety Training

All Contractors must ensure workers are trained in the tasks which they are requested or directed to perform, as per regulations. Workers shall not undertake work for which they are not trained to do safely. Where allowed under regulations, workers who are not deemed competent may undertake work under the direct supervision of a competent worker for the purposes of training the non-competent worker.

Workers must be trained by their employer to recognize hazards and unsafe conditions in the workplace and how to mitigate or control those hazards. Workers must be aware of their right to refuse unsafe work with no punitive repercussions as a result of such refusal.

Training records must be supplied to JDS Project Management upon request.

19 Specific Safety Requirements

19.1 Personal Protective Equipment and Clothing

All employers are required to ensure that their employees are aware of how to safely use, store and otherwise maintain their PPE. Failure to wear required PPE may result in removal from the worksite.

It is the responsibility of all employers on the worksite to supply their employees with all PPE, as required.

19.1.1 Clothing

It is the employee's responsibility to ensure appropriate clothing is worn to the worksite to adequately protect themselves from general work hazards as well as cold and heat hazards. When selecting clothing, workers are encouraged to dress in layers as, weather conditions may change rapidly and it may be necessary to add or decrease clothing layers. All clothing must be in good repair to avoid creating "catching", "tripping", or other types of hazards that may result in worker injury.

Workers engaged in welding, cutting and grinding activities must wear fire-retardant clothing such as fire-retardant coveralls or welding leathers. Such clothing shall adequately cover the worker to prevent sparks, slag or other heat sources from creating a burn hazard.

Other special protective equipment and special protective clothing shall be provided, maintained in a sanitary and reliable condition and used whenever hazards of process or environment, chemical hazards, radiological hazards, or mechanical irritants are encountered in a manner capable of causing injury or impairment

19.1.2 Eye and Face Protection

Safety glasses, as a minimum, shall be worn by all persons while in active work areas of the Project work sites. Prescription eye glasses without impact resistant lenses and side-shields are not permitted. Workers wearing prescription eye glasses not meeting the CSA/ANSI Standard are expected to wear Goggles or Over-The-Glasses (OTG) approved safety glasses.

Welders are expected to wear face shields or goggles with appropriate shading when welding. Similarly, welder's helpers, labourers or other workers in direct proximity to welders should be equipped with appropriately shaded glasses to prevent welding "flash".

Approved impact resistant face-shields of the appropriate type are required for any pressure washing, grinding or cutting activities such as the use of a chainsaw or chop-saw. Impact resistant face-shields are also required when using striking or struck tools of a hardened metal which may chip or fragment and cause metal pieces to uncontrollably break away from the tool. In addition, chemically resistant face-shields are required while decanting hazardous chemicals or any other use of chemicals where a potential hazard exists from 'splash back' during handling.

Fogging is an anticipated hazard at the work site and all Employers should selectively purchase eye-wear which will be resistant to this hazard or should otherwise supply an anti-fogging product.

19.1.3 Head protection

All workers are required to wear hard hats at all times while on the worksite unless otherwise specifically posted in areas such as office buildings.

19.1.4 Foot Protection

CSA approved, steel toed work boots with protective uppers extending above the ankle must be worn at all times while on the work site.

Boots must be in good condition (i.e. good tread with no tears or exposed toe caps), and tied above the ankle.

19.1.5 Hand Protection

Gloves must be worn at all times on the project while undertaking work activities where the risk of injury to the hands exists.

Gloves of the appropriate type will be worn when working with any chemicals, including fuelling activities, as per MSDS.

19.1.6 Hearing Conservation Program and Hearing Protection

Hearing protection will be required for all workers exposed to noise levels exceeding 85 dB at any time. Hearing protection is mandatory under these circumstances and is most easily recognized as being any situation where a normal conversation cannot be carried out at a distance of approximately 1 metre or arm's length.

Employers are responsible for supplying hearing protection to their workers.

19.1.7 Reflective Clothing

Workers engaged in work on the worksite are required to wear reflective clothing. The vest or outerwear shall be high visibility in nature and have reflective striping for day and night-time visibility.

19.1.8 Respiratory Protection

General air quality, as a nature of the operations being performed at the work site is not expected to create any extraordinary health hazards as a result of chemicals or processes being used. Where hazardous materials have been identified in assessments, appropriate controls will be implemented. Where ventilation is required inside buildings appropriate engineered ventilation controls will be introduced. Where general "dust" conditions, due to dry ground conditions and wind, are encountered outside of buildings, general "dust masks" shall be sufficient to control such a hazard when dust control using watering application is not immediately available. All Employers are responsible for making available such masks and workers shall use them as required.

Where an unanticipated condition is encountered, appropriate exposure monitoring and testing will be conducted as per Regulations and Legal requirements in order to ensure safe Air Quality is maintained for workers.

Where workers are involved with chemicals, the MSDS shall be consulted. Where respiratory protection is required for use and handling of the chemical, the contractor is responsible for providing a respiratory protection plan with site specific procedures.

19.2 Hygiene

19.2.1 Facial Hair

Facial hair is acceptable on the project except where otherwise prohibited by regulations related to respiratory protection and respiratory protection devices or the required use of such equipment for the purposes of work.

19.2.2 Potable Water

Fresh, potable water is to be supplied to all workers by their employer. Where potable water is made available by a tap, the tap shall be labeled "Potable Water". Where a tap exists and the water is not potable, the tap shall be labeled "Non Potable Water".

19.2.3 Washroom Facilities

Washrooms shall be made available on the worksite for employees by their employer. JDS will be responsible for the timely evacuation of washroom facilities to maintain their overall sanitary nature. Employers are responsible for maintaining washroom supplies and for cleaning individual washrooms and maintaining them. Employees engaged in washroom cleaning shall be supplied with appropriate PPE and given training on any cleaning chemicals to be used.

Washrooms shall be available for both genders on the worksite. It is acceptable to provide a single washroom facility for both sexes providing the facility is lockable from the inside and used only by a single individual at a time.

19.3 Smoking and Tobacco products

Smoking is permitted in designated areas only. Smoking in any vehicle, including pick-ups and heavy equipment is prohibited. Designated areas will be defined by JDS Superintendents or Construction Managers.

19.4 Manual Lifting

Workers shall not lift more than they are capable of lifting and, generally, shall not attempt to lift or carry greater than 25kg without assistance unless a procedure is put in place to reduce risk to a worker and the worker is trained in that procedure. Workers shall use good lifting techniques, lifting primarily with the leg muscles, not with the back, keeping a straight back. Workers shall wear gloves when manually lifting and carrying objects.

When large, heavy, or awkward loads are lifted or where repetitive lifting is required, the employer on the Project shall attempt to utilize mechanical lifting devices to reduce the risk of soft tissue and musculoskeletal injuries to their employees.

19.5 Housekeeping and Material Storage

Housekeeping is an integral component of safely maintaining the Sa Dena Hes Project worksite. It is commonly known that a tidy and clean workplace is indicative of a safer workplace. All work areas must maintain good housekeeping. Good housekeeping includes:

- Ensuring all material is kept neat and tidy and does not allow for tripping hazards.
- Ensuring areas are kept free of dust. Where dust is accumulating and explosive in nature, it is the responsibility of the Employer, generally the Contractor, to ensure such dust is tested and determined to be non-flammable and/or non-explosive.
- Not stacking materials above the manufacturer's recommendations.
- Keeping materials off of the ground and on blocks, skids or pallets
- Not storing flammable or hazardous materials inside enclosed spaces like Sea Cans, trailers or non-ventilated storage cabinets.
- Cleaning up all spills promptly (See MSDS for proper methods, PPE required and disposal requirements).
- Ensuring all garbage cans are emptied regularly.
- Ensuring any material which may act as a fuel source for a fire (wood, cardboard, other similar wastes) is not stored near an electrical facility, or an above-ground flammable liquid storage facility, or any area where flammable or combustible liquids are stored.

- Ensuring all “specialized” waste is discarded as per Contractual or Regulatory requirements.
- Ensuring that all pathways are kept clean, clear and free of debris and otherwise have non-slip properties.
- Keeping electrical cords, hoses and other “lines” strung in a neat and orderly fashion, preferably above the ground, and clearly marking them so as to prevent a tripping hazard.

19.5.1 Flammable Material Storage and Use

Generally, highly flammable or “flammable” materials will be stored as per the manufacturer’s recommendations, but need to meet the following minimal requirements:

- Areas where flammable materials are stored shall be marked and/or signed by the Contractor indicating flammable material storage and prohibition against smoking, sparks or other open flames.
- They shall be stored in a well-ventilated area—either an explosion/fire-proof cabinet with properly installed ventilation, or outside.
- Storage areas shall be free for a minimum 8 metres in all directions of dried vegetation which may act as further fuel in the event a fire occurs at the storage location.
- They shall not be stored in the cabs of pick-up trucks or equipment (ether, gasoline, aerosol cans, etc.).
- Flammable liquids shall have secondary spill protection such as a double walled tank, berm or spill tray. Where spill trays are used, consideration must be given to weather conditions, specifically snow and rain overflowing the containment with residual chemical inside creating an escape of such chemical.
- Where tanks are used to store flammable or combustible materials, the tank needs to be supported on a firm, fixed base and consideration has to be given to potential ground settling effects which, although unlikely on the project, may occur.
- Waste oil rags shall be stored in covered, metal containers, or the equivalent, and shall be marked as such.
- Flammable materials such as gasoline, diesel fuel, ethanol, etc. shall not be used as “cleaning” solvents unless specifically permitted by the manufacturer of the chemical or product.

19.6 Removal of Debris

Debris will be progressively removed from the site in such a manner so as to prevent:

- any buildup of debris on floors that could affect the integrity of the floor,
- any buildup of debris that could affect access and egress on site;
- any buildup of debris that could become a fire hazard.

Demolished materials must not be allowed to fall freely outside the structure unless confined within a chute or controlled area. Demolished material must not be allowed to fall freely within a

structure unless confined within a shaft, or controlled area, which is clear of obstructions to free fall.

Large members must be cut to suitable sizes and lowered by crane.

19.7 Hazardous Materials and Chemicals

19.7.1 Hazardous Material – Existing on Site

Prior to commencing project work where dismantling and demolition work will be conducted, JDS's project manager is responsible to review the Hazardous Building Material Assessments completed by Golder Associates

Examples of hazardous materials that will be encountered on the Sa Dena Hes project include:

- Asbestos Containing Materials.
- Lead-based Paint
- Mine Process Residues
- Polychlorinated biphenyls (from fluorescent light fittings or electrical transformers).
- Ozone-depleting substances in HVAC systems.

19.7.2 Hazardous Material – Process Related

Dust, fumes and vapour created by some work processes and material processing on the work site may present a risk of exposing workers to hazardous materials and substances. Examples of hazardous materials or substances that may be generated by work processes on the work site are:

- Airborne silica dust from grinding, cutting, coring, drilling or crushing concrete.
- Vapour from paint or coating application (e.g.: thinners and solvents).
- Vapour from fuelling operations.
- Gases from welding and burning processes.

Where the work processes or the processing of material indicates the presence of substances that are classified as hazardous to the health of workers, the Project Superintendent or designate is responsible to ensure all reasonable control measures are taken to eliminate or mitigate the hazard to all workers on the project.

19.8 Compressed Gases

Compressed gases have a variety of hazards typically associated with them, including potential flammability or contribution to flammability (Oxygen), WHMIS issues, or stored energy hazards.

Compressed gases shall be properly labeled, stored, transported and used as per the manufacturer and regulatory requirements.

19.9 Hand & Power Tools

Hand and power tools may only be used for the purpose for which they were designed. No modifications of any tool or device is allowed (removal of guards, taping/wiring of controls, welding-on of “special” pieces, etc.) without the express consent of the manufacturer or certification of the modification by a Professional Engineer.

All hand and power tools must be visually inspected prior to use to ensure that they are in good working condition. Hand or Power Tools found to be in a condition which may affect the safety of a worker shall be tagged out, taken off of site or disposed of.

Power tools, including circular saws, lathes, power cutting tools with cutting knives, belt sanders etc., must have appropriate guards installed as per the manufacturer.

Generally, hand and power tools must be in good condition and are subject to the following:

- Workers shall be trained in the operation of hand or power tools prior to being allowed to use them without supervision
- Worn or broken tools shall be replaced
- Snipes and cheaters are not permitted
- Power tools shall be double insulated or three prong cord type
- Electrical cords and fittings must not be worn, frayed, cracked
- Double eye protection is required while grinding, chipping, bush hammering or chiselling

19.10 Machinery Guarding

All machinery must have the manufacturers or engineered guards in place at all times. Moving equipment shall not be placed in such a manner as to have the ability to entrap a worker between the machine and a fixed object such as a wall or structural support.

Machines which have moving parts must have adequate guards to prevent workers from intentionally or accidentally having a limb, hand, foot, or other body part or clothing from being caught and causing personal injury. Such moving parts may include rotating equipment, gears, jaws, etc.

19.11 Compressed Air and Pressure Washing

Compressors and pressure washers shall only be operate by trained and competent personnel. Neither compressed air nor pressurized water should ever be pointed at another worker including to blow dust, or other debris from clothing or the body.

When using compressed air to clean, hearing protection and double face/eye protection shall be worn.

When using high pressure pressure-washers, workers shall wear double face/eye protection and additional foot protection to prevent undue exposure to cuts or burns in the event that the wand

Any chemicals used in pressure washing activities must be approved by JDS management and workers shall be trained in the appropriate WHMIS program and review the MSDS associated with such chemicals.

19.12 Access, Egress, Passageways and Working Surfaces

All accesses, egresses, passageways and work surfaces must be clear of debris or other hazards or obstructions and must be maintained in an otherwise safe condition at all times. Surfaces should be clean and dry, free of debris, provide sufficient traction and not have protruding hazards.

Passageways must be kept clear and must provide for safe movement, including adequate marking and signage, of both equipment and personnel where such passageways are “dual use”.

Emergency Exits must be available, clearly marked, and kept free of debris at all times in buildings or other similar structures.

Where a hole or other opening exists and which a worker can fall through it, the hole or other opening must have suitable handrails, barricades or berms erected around it to prevent a worker from accidentally falling through. Where barricading is not practical, the hole or opening must be covered with a minimum of ¾” plywood (not particle board) which is secured against movement (tied in place) and which substantially covers the hole. The plywood must be marked with the word “HOLE”. A dangerous hole or opening may occur either at height or at ground level.

19.12.1 Access and Egress to the Area Being Demolished

Where practicable a minimum of two accesses must be maintained to the work area to provide an escape route in the event of fire cutting off the primary access.

Access routes to work areas must be clearly marked and well lit and must be in areas protected from falling debris.

Access routes must be free from debris or other materials. Penetrations and openings must be covered or guarded.

19.13 Roof Work

Where it is not practicable to demolish the roof using mechanical means or to remove the roofing from work platforms below the roof then careful consideration must be given to the most suitable method of protection for workers engaged in the removal of the roofing.

Protection must be provided for all persons required to work on roofs where there is a danger of:

- persons falling through the roofing material
- persons falling from the edge of the roof
- persons falling where roofing has been removed
- persons falling through skylights or penetrations
- persons falling while accessing a roof.

Prior to the removal of roofing the contractor must consider the safest and most appropriate method of removing the roofing. Matters which must be considered include:

- safe access including the avoidance of tripping and slipping hazards and provision of ladders, cat walks and guard-rails, including the guarding of any opening on the perimeter
- condition and strength of the roofing material
- perimeter protection
- structural stability
- identification of fragile panels or skylights in solid roofs
- suitability of roof structure for the use of safety nets
- availability and strength of anchor points for static lines, inertia reels and lanyards
- means of rescuing persons from safety nets or safety harnesses
- methods of raising and lowering equipment and materials
- assessment of manual handling problems
- the particular health and safety issues where fragile materials will be encountered or the work involves removal of asbestos cement sheets or synthetic mineral fibre insulation
- crane access

19.14 Ladders, Ladder-Ways and Stairs

Stairways must be constructed to suitable standards for safety including having appropriate step width, handrails, landings, and slip-resistant surfaces.

Ladders used on the Sa Dena Hes Project must be made of aluminum (general use) or fibreglass (for use around electrical) and be in good condition. No wooden or hand-made ladders are allowed. Ladder safety shall be followed by all workers including:

- Ensuring all ladders are inspected prior to use and taken out of service and tagged "Danger, do not use" immediately if they are found to be unsafe.
- Only allowing one (1) worker on a ladder at any given time.
- Using 3-point contact when mounting or dismounting any ladder (two feet and one hand or two hands and one foot on the ladder at all time).
- Facing the ladder at all time. It is prohibited to climb or climb down a ladder with a worker's back to the ladder.
- Using tool-bags and a hoist rope to raise and lower tools. Do not carry tools when moving up and down a ladder as it inhibits 3-point contact use.
- Ensuring that any tools on a worker are secured (tool belt) prior to climbing a ladder so they don't fall down onto workers below.
- Ensuring extension is used at a 4v:1h ratio (for every 4 metres high, the ladder should be kicked out 1 metre at the base).
- Ensuring extension-ladders are secured at the top and bottom so they don't fall backwards from the top or kick out at the base.
- Ensuring the extension-ladder extends at least 1 metre above the area where a worker may want to get off the ladder at the top so proper hand-holds are in place the entire time.
- Ensuring A-Frame step-ladders are fully opened and have the braces fully extended.
- Not using the top step on an A-Frame step-ladder as a step. That's the step that is marked "this is not a step".
- Using another worker to hold the bottom of an A-Frame step-ladder to ensure stability, if necessary.

19.15 Scaffolds

Scaffolds shall only be made of approved, engineered products (no 2X4's and saw horses) and shall only be erected by trained and competent personnel and otherwise conform to legislated requirements. Manually propelled scaffolds, or work platforms, may be used providing they meet all legislated requirements including the limitation that they shall only be used to a maximum height of 3X the smallest base dimension. All scaffolds must have top-rails, mid-rails and toe-boards. Contractors are responsible for installing and maintaining any required scaffolds as well as marking and inspecting the scaffold. All scaffolds must be marked as to when the scaffold was erected, who erected it (Company and person and contact information), what the working load limit is, and what the current status is. Scaffold tags must be installed by the Contractor installing the scaffold and workers shall read scaffold tags prior to using a scaffold.

- Scaffolds marked with a green tag shall be designated "general access allowed with no restrictions".

- Scaffolds marked with a yellow tag shall be designated “authorized access only with restrictions” (such as fall protection requirements), with the restrictions clearly marked on the tag.
- Scaffolds marked with red tags, or scaffolds not having been inspected for at least 7 days, shall be designated “no access allowed”.

Scaffolds must be inspected no more than 7 days after their initial erection, and every 7 days after their last inspection in order to remain “in service”. The date of the last inspection and the inspector’s name and initials shall be placed on the scaffold tag after inspection. In the event that a scaffold needs to be used and the last inspection was greater than 7 days, a worker must not use the scaffold until such time as the Contractor that erected the scaffold can do another inspection to deem it safe for use.

Scaffolds shall not be over-loaded at any time including being over-loaded with personnel, tools or materials or any combination thereof. Scaffolds shall be designed to meet 4X their intended maximum weight.

19.16 Signage and Warning Signs

Areas where health or safety hazards exist that are not immediately obvious to employees shall be barricaded, or warning signs shall be posted at all approaches. Warning signs shall be readily visible, legible, and display the nature of the hazard and any protective action required. It is the responsibility of the area Contractor to erect warning signs. Warning signs required for common work areas will be posted by JDS.

19.17 Guards, Barricades, Fencing

The Contractor is to provide and maintain all guardrails, barricades, fencing, flag persons, etc., as necessary to protect personnel on the Sa Dena Hes site from injury.

Temporary fencing shall be installed where the work is accessible to the public (e.g., road crossings) and are to have flashing lights when used during the hours of darkness. The contractor is responsible and shall ensure that all hazards are suitably protected from vehicle and mobile equipment traffic and operation by the use of concrete jersey barriers or another suitable means as approved by the JDS Management.

19.17.1 Overhead Work

When conducting overhead work, the area directly below the work shall be cordoned off or otherwise controlled in the event that any material should fall from above onto or into an area below. The area should be flagged with red, danger ribbon with appropriate ribbon tags installed on all four sides of the flagging indicating who put the ribbon up, why, when, and who to contact (with contact information), should access to the area be required.

19.18 Light Vehicle Travel and Use

Light vehicles are expected to be equipped with a minimum 10 Lb. ABC Fire extinguisher, a suitable 1st Aid Kit, tire chains & a spill kit. Vehicles with limited visibility to the rear and any vehicle over 5T must have a back-up alarm installed.

19.18.1 Parking and Fuelling of Light Vehicles.

Light Vehicles must be parked safely, on flat (no undue ground conditions which may cause foot travel issues), level (no side, up or down-slopes), ground with the vehicle in Park gear with the Park brake engaged.

Light vehicles must be shut off prior to fuelling. It is prohibited to smoke within 10 metres of a fuelling operation.

19.18.2 Highway Tractors, Low-Boys, High-Boys & Loading/Unloading

Tractor-Trailers delivering modules, items, and materials will be ongoing throughout the duration of the Sa Dena Hes Project. The following rules shall be applied when such activities are underway.

- All truck drivers must have Project Orientation prior to unescorted entry.
- Truck drivers may be escorted onto site by an oriented worker but must, as a minimum, receive a Visitor's Orientation and complete basic paperwork.
- Truck Drivers coming onto site as visitors shall not leave their cab except to enter and exit at office areas or:
    - To sweep their deck, stow or secure blocking, or to store chains or straps.
    - To observe unloading operations from a safe distance and out of the path of all moving equipment. Truck Drivers coming onto site under a Visitor's Orientation shall not participate in any work including acting as a signalman.
- Truck Drivers getting out onto site shall wear all of their PPE including Hard Hats, Safety Glasses, Steel Toed boots and reflective clothing. NO EXCEPTIONS.
- Site speed limits shall be obeyed, headlights shall be on and seatbelts shall be worn. NO EXCEPTIONS.
- No work on trucks shall be done on site without express permission from JDS Management. Work on site may require following site lock out procedures, confined space entry procedures, hot work procedures, etc.
- Trucks must be parked properly on the work site including having their park brake set and potentially using wheel chocks or turning their wheels "into a bank".

When loading and unloading delivery trucks, some basic safety rules need to be followed:

- Only trained workers shall operate hoisting equipment.
- The weight of the load shall be known and the hoisting device shall, as per the load chart in the machine, be capable of lifting the load.

- A signalman shall be used. Only 1 signalman shall be used.
- The signalman, if trained, may rig for loading/unloading but the operator of the hoisting equipment shall be in Neutral with the Park brake on and their hands off and away from all controls and placed in his or her lap while rigging is taking place.
- Signalman must control (keep other persons out of) the loading/unloading area and MUST REMAIN OUT OF THE LINE OF FIRE when hoisting or lifting is taking place, in the event the load shifts or falls.
- Signalmen must NEVER stand on a deck while materials are being loaded or off-loaded and should NEVER stand in and amongst materials while a hoisting device is getting positioned to take the load (in case they accidentally move in the wrong direction and hit the load).
- Hoisting equipment shall not be left unattended with any raised components.
- Riggers shall not walk under raised implements on a loading tool, or under a suspended load.
- Only certified hoisting chains, nylon slings or wire rope shall be used for hoisting activities.
- Rigging shall be inspected prior to use.

19.19 Traffic Safety

Light vehicles are an integral tool on the Sa Dena Hes Project. Light vehicles being operated on the Project are subject to the same rules and conditions as their operation on public roads.

During all off-site travel, workers are required to follow all posted signage and obey all legal and Regulatory requirements pertaining to safe operation of a motor vehicle.

All workers operating light vehicles on site must have a valid driver's license and are required to have their seatbelts and headlights on at all times. The maximum speed limit on the work site shall be 30 kph.

Temporary traffic control signs for the work areas will be the responsibility of the Contractor pursuant to safe travel through the area. Signs are required to be followed on the work site including those indicating direction of travel, travel or area restrictions, or Regulatory signage (stop/yield, etc.).

Where Traffic Control Persons (Flag persons) are in place, their direction shall take precedence over any posted signage.

Workers or light vehicle operators shall not enter the working radius of a piece of heavy equipment to approach or pass, designated as a minimum of 30 metres for the purposes of heavy equipment, unless they establish radio or eye contact with the operator and receive a clear signal to approach or pass.

When workers or light vehicles are within 10 metres of a piece of heavy equipment, and after receiving permission to enter the working radius, as per the last paragraph, the heavy equipment must be parked safely with the operator out of the cab.

19.20 Cell Phones, Electronics and Other Distractions

The use of personal electronic devices (including but not limited to personal cell phones, portable DVD players, PDA's, MP3 players, etc.) is not permitted while operating or driving equipment or vehicles or otherwise operating machinery. These devices are a distraction to the safe operation of equipment and light vehicles, and are not a business requirement for field tasks.

If it becomes necessary to use these devices, it is recommended that the vehicle must first be driven into a safe area and parked while not obstructing other traffic.

19.21 Operation of Heavy Equipment

Basic site rules for the operation of heavy equipment including fork-lifts, loader, haul trucks, excavators, etc. include:

- Only trained and competent workers shall operate heavy equipment. Contractors are responsible for having Safe Work Practices or Procedures for each piece of Heavy Equipment on site and for training workers on those Practices or Procedures.
- All heavy equipment must be equipped with a minimum 10 LB ABC fire extinguisher, a spill kit, a shovel, the operator's manual, a back-up alarm, and a Roll Over Protection System (ROPS).
- Headlights shall be on and headlights must be on at all times.
- 3-Point Contact shall be used whenever mounting or dismounting heavy equipment.
- Heavy equipment shall be operated "in control" at all times and shall not drive at excessive speeds. The site speed limit shall be set at 30 kph.
- Heavy equipment shall not be operated on the Project site if any safety device is not in good condition including brakes, steering, glass and mirrors, horns, seat-belt, fire suppression or lights.
    - Guards must be in place and installed on any moving parts that a worker may come into contact with during operation, maintenance or "pre-use inspection" including fan belts, pulleys, flywheels, etc.
    - Generally, brakes on all equipment, including light vehicles must be capable of stopping the equipment, under load, in a safe manner on the maximum grade which the vehicle may travel on.
    - Any equipment taken out of service for safety issues shall be locked out and tagged out with a "Danger! Do not operate" tag and further, a record shall be

kept of any equipment which is not repaired immediately in the Contractor's Log Book pertaining to such equipment repairs required.

- Operators are responsible for knowing their surroundings at all times, including while engaging a piece of heavy equipment in reverse.

19.22 Forklifts or "Powered Industrial Lift Trucks"

Forklifts will be an integral tool during dismantling and demolition and will allow for the safe movement of bulky or heavy materials within the work site. It is imperative that such devices are used safely and only by competent personnel. Forklifts shall be operated under control at all times and at slow speeds keeping the machine and load stable at all times. Operators must be aware of all hazards on a pathway, especially a newly travelled route or pathway, including slippery sections, sharp edges, drops, bumps, rough roads, congested areas, overhead power lines, etc.

Seatbelts must be worn at all times and headlights must be on. The equipment must be checked daily, prior to use, for defects and a record kept of the pre-use inspection. The horn must be in good, working condition. All warnings and labels must be in good condition, including the lifting chart. An Operator's Manual must be present on the machine or readily accessible to the operator.

19.23 Tire Changing

Generally, good tire changing practices must be followed including:

- Only competent persons shall install or repair tires using a written procedure.
- Ensure the area where a tire is to be repaired, such as a roadway, is safely delineated and otherwise protected from other traffic. Use cones and/or signs and/or reflective devices.
- Follow the Original Equipment Manufacturers (OEMs) instructions for tire repair on all equipment, including light vehicles.
- Where a vehicle is jacked up, the surface upon which the jack is resting shall be solid.
- No worker shall place his or her body, or any body part, in a "pinch" point underneath a suspended vehicle such as between the tire and the ground.

19.24 Towing of Heavy Equipment

Prior to towing any Heavy Equipment, a Job Hazard Analysis, or Safe Work Plan shall be conducted.

- Supervision must be involved, as a minimum during set up, for all towing tasks. Workers are not to attempt to tow or otherwise try to get heavy equipment unstuck without appropriate supervision.

- When conducting a JHA or safe work plan, consider the obstacles in the area such as slippery spots, soft spots, lumps, rocks, traffic, etc.
    - Ensure appropriate communication methods are established in the JHA. Note that workers are NOT to stand in the line of fire during towing activities if visual communication and/or hand signals are used as the method of communication.
- ONLY ONE PERSON SHALL BE DESIGNATED as a signal person when attempting to get Heavy Equipment un-stuck. Heavy Equipment Operators involved in operating heavy equipment that is towing or being towed shall only move when directed to do so by the spotter.
  The spotter shall be designated on the Safe Work Plan/JHA and will, usually, be the supervisor.
- Be aware of uneven ground conditions and obstacles when walking to equipment to be towed and always wear appropriate PPE.
- Inspect Pins and Shackles prior to use.
- Only use Wire Slings of sufficient length and approved load rating. Chains, rope or other types of towing equipment is prohibited.
- Only use approved towing eyes/hooks when towing any Heavy Equipment. If such points are not available, a mechanic shall be consulted for the safest place to attach rigging. Generally, Heavy Equipment shall be towed no further than the nearest, safe location to conduct repairs if towing is required as the result of a mechanical failure, not being stuck.
- Consider decreasing load weight prior to towing heavy equipment. Such an example would be using an excavator to unload a heavy hauler prior to towing. This may be time consuming, but it is the safest way to execute such a plan in the event a heavy hauler becomes stuck.
- Pull in a straight line whenever possible
- Clear the area of unnecessary personnel.
- Pull slowly with even force. Do not use a jerking motion or otherwise put undue stress on the tow rigging.
- Use adequate equipment for the towing task.
- Workers shall not attempt to unhook rigging until all equipment is parked in a safe manner and only under the direct supervision of the spotter who shall ensure all equipment is stationary until all workers are clear.

19.25 Back-Up Alarms

Back Up alarms are required on all vehicles over 5T or those vehicles less than 5T which have limited visibility to the rear (vans, pick-ups with mechanics' or welders' bodies). Back Up alarms are required on all heavy equipment. A spotter may be used in lieu of a back-up alarm for all vehicles that will be on the site temporarily, such as delivery vehicles.

19.26 Control of Hazardous Energy (Lock Out Tag Out—LOTO)

All hazardous energy on the Sa Dena Hes site must be controlled before commencing work or maintenance on any tools, equipment or "systems" (piping, electrical, other) on site. Control of hazardous energy is not only the "Lock Out and Tag Out" of mechanical, electrical or pressurized devices but also includes the control of any "stored" energy such as pneumatic, hydraulic, or potential energy.

All equipment and systems must be Locked Out and Tagged Out prior to the start of maintenance or repair work.

All stored energy must be released or bled off or otherwise controlled.

Activities requiring "Control of Hazardous Energy" include, but are not limited to:

- Repair or maintenance of any heavy equipment or crushing units requiring locks or other controls to be placed on the energy source (electrical/battery or pneumatic) that would cause an unexpected start-up of the machine.
- Repair of any light vehicle or auxiliary equipment (light tower, generator, etc.) which would require locks or other controls to be placed on the energy source (electrical/battery or pneumatic) that would cause an unexpected start-up of the machine.
- Repair of any electric or pneumatic hand tools which would require unhooking of the "power" supply and control of the cords or hoses which could unexpectedly be hooked up to the power supply.
- Work on or under any "raised" implement including repair or maintenance of the implement itself (heavy equipment blades, buckets, rippers, etc.), or work under the raised implement (haul truck or gravel boxes). This would require pins, blocks or other similar "controls" to be in place to prevent the raised component from falling or seeping down.

19.27 Welding, Cutting & Grinding

A "Hot Work Permit" is required prior to doing any welding, cutting and grinding in the Refinery area or around or in proximity to any flammable material storage site. This includes welding, cutting and grinding.

19.27.1 Welding Services from Vehicles.

The contractor shall ensure that welding services from a vehicle comply with all applicable Regulatory bodies and that they have sufficient ventilation both at the top and bottom of any cabinets used to store welding gases inside an enclosed space.

All rig welding units shall be inspected/approved by the JDS Safety Coordinator or designated Representative prior to being used on the Sa Dena Hes site to ensure compliance and mechanical worthiness such as no excessive fuel/lubricating fluid leaks from the chassis/engine.

After inspection of a mobile rig welder, a letter of compliance will be issued and the mobile rig is to keep the letter in the glove compartment while on the site at all times.

19.27.2 Welding, Cutting and Grinding-General

Only experienced, authorized workers, suitably trained in their craft shall be allowed to use welding and/or cutting equipment. Welders and helpers shall wear all appropriate equipment or clothing and welders are required to change into a hard hat after taking off their face shield at all times on the work site.

NO WORKER SHALL WELD, CUT OR GRIND A VESSEL OR OTHER TYPE OF CONTAINER until such time as the vessel or container has been properly cleaned, purged or filled with a non-flammable product such as water in the event the container contains or contained flammable or explosive gases or liquids. Ongoing gas detection, regardless of these controls may be required. No such work shall take place without a Job Hazard Analysis being conducted in advance and a "Hot Work Permit" being issued by JDS.

19.28 Cranes and Hoisting

Only "designated" workers, defined as "selected or assigned by the employer or the employer's representative as being qualified to perform specific duties" shall operate overhead or rubber tired cranes. Such designation by a Contractor on the Project shall ensure that such designation is given only to trained, qualified and otherwise competent workers and that such documentation is available to JDS Project Management.

Prior to hoisting activities taking place, the crane operator shall take into account, other than the load rating of a crane in a specific configuration regarding set-up, boom angle, counter-weight, etc., additional factors such as freely suspended loads, track, wind, or ground conditions, condition and inflation of rubber tires, boom lengths, proper operating speeds for existing conditions, and, in general, careful and competent operation, in order to determine the safe hoisting limits. On the Project, under no circumstances shall a mobile crane exceed **85%** of its max load rating in a given configuration.

All cranes must be inspected daily, prior to use. Controls including switches, gauges and levers must be functioning properly, safety devices must be functional, undue wear and tear should not be present, air and hydraulic systems should be in good condition with no leaks, crane hooks must be in good condition, the boom should be free of cracks or loose members, the counterweight should be secured, and all lines must be free of defects which could affect the safety of the crane. The inspection must be recorded including an itemized checklist of the crane, dated and signed the designated worker.

Prior to coming onto site, Contractors must supply their crane's Inspection certification to JDS as per regulations and which must be within the last 12 calendar months as a minimum.

Industry safe work practices should be followed at all times and include, but not be limited to:

- Completing a pre-use check which should include a check of the boom for loose materials, prior to hoisting it to ensure no loose debris or tools will fall upon lifting.
- Controlling the fall area during a lift at all times and ensuring workers never walk under a suspended load.
- Hoisting the load just a few inches initially to ensure a balanced and secured load.
- Using tag lines when controlling a load from the ground. Workers are not to place their hands on a moving load for any reason.
- Ensuring counter-weight clearance prior to making a lift and, as required, completing a "dry run" without the load to ensure all clearances can be met safely.
- Double-checking the load chart to ensure that lifts conform to initial calculation. A load or hoist chart must be in every crane and be absolutely legible.
- Ensuring that the hook is directly above the load and that slings or cables are not twisted or kinked.
- Using smooth acceleration and deceleration when moving the load.
- Where outriggers are made available on a crane, they shall be used, fully extended and have ground plates or pads on which the outriggers rest.
- Never allowing the wire rope to spool out leaving less than two full wraps on the hoist drum.
- Using a signalman when walking a crane.
- Never leaving the cab of a crane with a load suspended.

19.28.1 Overhead Cranes

The same principles for the safe use of Overhead cranes are the same as Conventional or RT Cranes and must be followed including "designated" operator selection and training, inspection and recording of the inspection, and use including the load limits. Some items specific to Overhead crane safety that must be followed include:

- Ensuring that no obstructions are in place by walking the length of the crane prior to EACH USE.
- No scaffold construction is permitted within 3' of a crane rail in any direction.
- Man-walks and man-walk access must be constructed to specification and allow for safe access to all parts of the crane, including fall protection.
- Walkways and crane bridges must have railings their entire length and be clear of any personnel on the walkway.
- Bumpers and limit switches must be in good working order to ensure the crane does not over-travel on its' rails.
- Testing of the brakes must occur daily to ensure they are in good working order and can safely stop the crane.

- The operator of an overhead crane using a pendulum control shall ensure that their body placement is such that they do not place themselves between a moving load and a solid "pinch" point.

19.28.2 Overhead Loads

Hoisting or movement of loads shall not take place above workers or other work groups. In order to prevent this from happening, all activities involving hoisting shall have a controlled area on the ground where workers are prohibited from entering in the event materials should fall from a hoisted load. The area may be controlled using red "Danger" ribbon, using barricades, or using a spotter, or a combination of all three.

Workers shall never walk under a suspended load.

19.28.3 Rigging

Rigging must be performed by competent personnel at all times. Training must be given to new workers to ensure proper rigging for simple lifts using a basket, choked or straight sling configuration. Such training shall be recorded. Rigging shall be inspected daily and damaged rigging shall be disposed of immediately.

Only certified, grade 8 or 80 hoisting chain, nylon slings, wire rope slings or engineered rigging shall be used for hoisting activities. Rope, normal chain, or other types of hoisting devices are prohibited.

19.29 Elevating Work Platforms

Elevating Work Platforms, or EWPs (bucket trucks, genie-lifts, snorkel-lifts, JLGs, etc.), are an integral piece of equipment and a preferred tool for work at heights. EWPs must be used safely at all times and the following must be adhered to:

- All users must be properly trained and certified—inexperienced or untrained workers are not permitted to use EWPs.
- Equipment must be visually inspected and the controls tested in all planes prior to use to ensure its' safe operation. Testing must be done without a worker in the basket and the results are to be recorded.
- Tampering with EWP safety devices, such as limit switches, is strictly prohibited.
- "Tarping in" for protection against the cold is strictly prohibited as it creates a "kite effect".
- The manufacturer's load rating must not be exceeded, including number of persons and with consideration to tool weight.
- All users must wear Fall Protection equipment—harnesses and a lanyard.
- Fall Protection must be tied off INSIDE the EWP to an approved attachment point.
- Workers shall ensure that the EWP gate is closed and latched after entering.

- Workers are prohibited from exiting an EWP at heights unless a special procedure (dual tie off) is written down, workers are trained, and permission is granted from JDS Management.
- Hands and arms shall remain inside the basket when being rotated or moved at height.
- Controls shall be operated from the basket unless verbal permission is obtained from a ground worker or in an Emergency situation.
- Booms must be securely stowed and outriggers (if available) must be up and secured prior to travel.
- Travel with workers in an EWP may only be done as per the manufacturer's specifications. For example, travel in bucket trucks is generally prohibited as they are not designed for this.
- When in unstable ground conditions, the path of travel must be walked prior to travelling with an EWP.
- WORKERS IN AN EWP SHALL TRAVEL AT SUCH A SPEED AS TO BE IN CONTROL OF THE MACHINE AT ALL TIMES, AND GENERALLY 8 KPH OR LESS.
- EWPs shall be parked on flat, level ground with brakes set as available.

19.30 Fall Protection

Fall Protection shall be used above 3 metres. The potential for a fall must be minimized using engineered controls such as hand-rails, barricades, hole-coverings, gates, etc. whenever possible. When Personal Protective Equipment (PPE) is worn in the form of "Fall Protection Equipment" the equipment used must meet legislated requirements and be otherwise certified to meet National Standards such as CSA, ANSI, etc. Equipment shall be inspected prior to use by a worker. Only trained workers shall use fall protection. Body belts will not be permitted unless specifically authorized by the Project Safety Manager, Project Manager, or Construction Manager and will only be used for "Work Positioning", not "Fall Arrest".

Good Fall Protection practices include:

- Using Fall Protection any time a worker is able to fall 3 metres or more.
- Using Fall Protection ANY TIME there is a risk of injury greater than the risk of injury from the impact on a flat surface.
- Considering the use of rails or guards rather than PPE.
- Training all workers in the use of Fall Protection equipment.
- Ensuring workers inspect Fall Protection equipment prior to use.
- Ensuring only equipment that meets Legal requirements is used.
- Ensuring "Positive Protection" is used when hooking and unhooking at height—hook up a second lanyard before disconnecting a sole lanyard when "travelling" between areas.
- Ensuring that the attachment point for lanyards is capable of supporting the worker's weight in the event of a fall. **This is critical during the use of horizontal life-lines**.

- HAVING A RESCUE PLAN in place to retrieve a fallen worker that has been arrested by their PPE.

19.31 Confined Space Entry

"Confined or Enclosed Space" means any space having a limited means of access or egress, which is subject to the accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4 feet in depth such as trenches, pits, tubs, vaults, and vessels.

It is anticipated that confined space entry will be required at the Sa Dena Hes site in the form of vessel entry. Some confined space entry may be required for ditch grading at the mine site.

A Permit is required for all Confined Space Entry. Permits may be issued for more than a single shift and must be kept on file for a period of one (1) year after issuance. JDS Management will issue the permit, but the Contractor is responsible for all other aspects of the confined space entry including signage, access, blinding/blanking, air quality testing, ventilation and rescue. Employee training must be completed by the Contractor prior to workers entering a confined space.

It is anticipated that entry into existing or used tanks or other similar vessels will be required. Generally, the following minimums will be required:

- A Sign "Permit Required confined space—Do not enter" will be required to be posted.
- Safe access and egress into and out of such tanks or vessels must be maintained. Scaffolding or equivalent access will be required with appropriate landings.
- Communication and monitoring will be required likely in the form of a continuous man-watch.
- The Confined Spaces may require Lock-Out and Tag Out of internal, mechanical devices such as agitators in addition to blinding and blanking of piping systems leading into the Confined Spaces.
- Owner Locks and Contractor Locks shall be placed on all Lock Outs.
- Illumination would be required for safe work inside the confined space. —
- Where determined, the confined spaces will need to be cleaned having previously contained various chemicals. The type of chemical will be identified, the MSDS will be consulted and approved methods for clean-out only shall be used.
- Air Quality Monitoring will be required. It will either be continuous or completed at intervals. The man-watch worker may complete this task. It is expected that flammability levels, oxygen levels and toxicity levels (initial) will require testing.

- If an Immediately Dangerous to Life or Health (IDLH) atmospheric condition should develop during activities, all workers shall immediately evacuate the Confined Space and shall not re-enter until an investigation and secondary safe work plan is in place.
- A rescue plan shall be in place for the immediate removal of a worker from the confined space in addition to potential need and contact of outside rescue services.

19.32 Ground Disturbance

No worker shall dig mechanically to any depth or to a depth greater than 30 cm by hand, or otherwise “disturb the ground” without confirming the presence or absence of underground utilities including, but not limited to, power, water, sewer, or natural gas lines.

An excavation permit will be required by employers prior to digging and will be supplied by JDS Supervision.

Utilities must be “hand exposed” within 1 metre of the location of an underground facility unless otherwise dictated by the utility owner. Hand exposure shall be completed using hydro-vac as the preferred method on the project.

19.33 Portable Heaters

Portable heaters are a commonly used item on a worksite and will be used during the Sa Dena Hes dismantling and demolition project. Heaters used must be compliant to all regulations and standards. Some good practices regarding portable heaters include:

- Ensuring only qualified electricians or mechanics initiate repairs.
- Keeping any element or discharge vent away from flammable materials including tarps or flammable liquids.
- Keeping them stable and upright where they will not tip over and create a fire hazard.
- Ensuring exhaust gases are well vented so as to not expose workers to a hazardous atmosphere.
- Ensuring electrical heaters are grounded.

19.34 Working Alone

Workers are not permitted to be assigned, or allowed, to perform work alone in any area where hazardous conditions exist that would endanger their safety unless they can communicate with others, can be heard, or can be seen.

Where lower risk situations are present, a worker may be allowed to work alone providing the following minimum requirements are met and all required documentation is available proving that such requirements are met:

1. The task must be assessed for risk to prove it is lower risk.
2. A procedure for “check in” and “check out” must be established so that the worker is in regular communication with emergency response as required.
3. The procedure must include a suitable means of communication.
4. The communication interval may not, under any circumstances, exceed 4 hours in duration. For work designated “higher risk”, working alone is not permitted.
5. The worker is to be trained in the procedure and communication methods to be used.
6. In the event that a worker fails to make contact and attempts to contact the worker are unsuccessful, the worker or supervisor responsible for receiving the communication shall immediately notify JDS management and engage the Emergency Response Plan.

19.35 Electrical Safety

General Electrical Safety shall be as follows:

- Only competent workers shall install or repair electrical devices. This is critical for all high voltage systems above 120V.
- All electrical devices are to be unhooked from their power source and locked out as required prior to repair.
- All electrical must be grounded or otherwise use a Ground Fault Circuit Interrupter (GFCI) except where double insulation meets federal regulations.
- Electrical cords, extension and those supplying power, must have three prongs with all three prongs in good condition.
- Electrical cords shall not be run through water except where rated and designed to control the hazard.
- Electrical cords with bare wires or with a jacket that is worn through showing the wires must be repaired prior to use.
- Electrical and power cords shall be strung so as not to impose a tripping hazard and shall be protected from damage by light vehicles or heavy equipment when crossing a road or pathway.
- Where danger exists and at all panels and buildings where electrical hazards exist, danger signs pertaining to electricity shall be installed.
- At major electrical stations, only authorized persons shall enter and such stations shall be marked “authorized personnel only” or equivalent.
- At transformer yards, only authorized persons shall enter and such yards shall be secured against unauthorized entry. Such yards shall be marked with appropriate electrical hazard warning signs and “authorized personnel only” or equivalent signs.

19.36 Power lines

Work within 10 metres of an overhead power-line, transformer or electrical facility pertaining to non-insulated lines, or within 3 metres of any power pole or guide wire requires a Permit.

When travelling under power lines with equipment that has the ability to reach within 3 metres of overhead power-lines, use a spotter equipped with an air-horn at all power-line crossings.

Qualified workers are required to follow all requirements related to electrical installation and repair requirements, including power lines, power facilities or power facility components.

19.37 Illumination and Lighting

Illumination sufficient to provide safe working conditions shall be provided in and on all surface structures, paths, walkways, stairways, switch panels, loading and dumping sites, and work areas. This will be of specific importance inside buildings and during night shift operations. Workers shall not work until sufficient light is provided.

All access and egress to and from the workplace amenities, first aid room, office, storage sheds, rescue equipment and any other part of the Sa Dena Hes site where workers may need to go as part of their duties, must be clearly illuminated.

Provision must be made for sufficient emergency lighting to enable a safe evacuation from the site in the event of a power failure.

Mobile communication must be provided at the workface to contact emergency services in the event of an accident.

19.37.1 Light Towers

If Light towers are used on the worksite to provide illumination, only competent workers shall transport, set up or take down such equipment. Workers shall follow the manufacturer's recommendations while transporting, setting up or taking down light towers.

19.38 Wildlife and Insect Control

Contractors are responsible to ensure that workers have appropriate protection against general insect nuisances. Workers are required to state potential allergic reaction issues on their site access Medical Form including where, if any, epinephrine needles (epi pens) are kept in the event of such a reaction.

Note that ticks may be present on the work site and may cause health issues if contact with workers is made. Workers must inspect themselves daily after work activities during the summer months to determine if ticks are present on their body. First Aid or Medical attention should be sought for ticks which have burrowed into the skin.

Workers engaged in activities on foot in remote areas of the site shall carry animal deterrents such as an air horn or bear spray.

Any encounters with dangerous wildlife should be reported to a worker's supervisor immediately and arrangements must be made to go to a safe location such as the inside of a building or office trailer, or the cab of a vehicle. Contractors are required to report any dangerous wildlife encounters to JDS supervision immediately. JDS Management will inform local authorities as required to deal with nuisance or dangerous animals.

19.39 High Winds

High winds may cause a hazard at the work site. Crane operations shall be shut down in conditions where wind exceeds 45 KPH or as otherwise stated in the regulations.

High winds may cause a "tree falling" hazard. Workers shall not work within 2.5 lengths of the tallest tree in the vicinity during high wind areas defined as 45 KPH or greater.

During windy conditions, it is imperative that all material is secured. Securing may require tying the material down, weighting it down or storing it properly in racks. UNDER NO CIRCUMSTANCES is loose material to be left at heights during windy conditions.

Scaffold, or other elevating work platform, work needs to be evaluated during high winds, and should not be done where there is any reason to believe that the safety of a worker may be put at risk.

19.40 Lightning

In the event of a thunderstorm, it is the responsibility of the supervision in charge of the work at those locations that have been determined to be "At Risk Locations" to stop the work and evacuate the workers to a safe location until the threat of lightning has passed in accordance with the 30/30 Rule.

"At Risk Work" can generally be categorized as any outside work being done on, or in immediate proximity to "At Risk Locations" that could be hazardous to workers during a thunderstorm. "At Risk Locations" are typically isolated structures (communication towers, substations, air monitoring stations etc.), Open cab vehicles or open cab mining/construction equipment, Metal fences around isolated structures, the tops of tanks and large open areas,

19.41 Frostbite, Hypothermia and Heat Exposure

Workers must be aware of potential weather conditions, specifically extreme heat and cold that may cause a hazard. Where work is conducted in extreme weather conditions appropriate

controls, in the form of cool-down and warm-up breaks must be granted to workers exposed to the elements.

20 Refusal of Unsafe Work

All workers have the right to refuse to do any work which they consider “unsafe”. Work may be “unsafe” as the result of numerous factors including, but not limited to:

- A Hazard or unsafe conditions may be encountered. To mitigate, consider, in this order:
    - Eliminating the Hazard.
    - Using engineering to safe-guard the hazard.
    - Using an “administrative control” such as a “practice or procedure” to ensure workers are not unduly or unsafely exposed to the hazard.
    - Wearing Personal Protective Equipment (PPE)
- Worker inexperience. To mitigate, a more experienced worker may be used.
- Unsafe tools or equipment. To mitigate, repair or replace.

Under any circumstance by which a worker refuses and where the circumstance cannot be corrected immediately with discussion between the worker and their supervisor in order to allow for safe work, an incident report shall be completed and categorized as a “near miss”. All situations where a worker refuses to do work as “unsafe” shall be brought to the immediate attention of JDS Management.

21 Building Demolition

21.1 General Precautions

The building or structure to be demolished and all its components are to be maintained in a safe and stable condition. Temporary braces, shoring, or guys can be added for stability.

Precautions must be taken to ensure that sudden weather changes do not affect the stability of the structure. Poorly braced structures can be blown over and loose debris can become airborne.

Debris must not be allowed to accumulate or fall onto floors to an extent that collapse could be caused. Debris must not be allowed to accumulate against walls to an extent that adverse lateral loads are imposed.

21.2 Stripping Out

The techniques adopted for stripping out and for demolition should minimize the release of dust into the atmosphere. Selection of an appropriate collection technique, such as vacuuming or

hosing down, should take due account of the nature of the dust and the type of hazard (explosive, respiration, etc.) it presents.

Dust generated during stripping, or during the breaking down of the building fabric to removable sized pieces, should be left damp until it is removed from the site or can be otherwise contained. The use of excess water for this purpose should be avoided.

21.3 Manual Demolition

Removal of the roof must be in accordance with safe work practices and procedures.

Walls and gables should be demolished course by course and all work should be performed from safe working platforms. Workers must not work from the top of a wall or partition being demolished. Areas where debris will fall must be barricaded off and signs erected to prevent persons from entering before demolition starts.

Care must be taken not to overload floors.

Removal of roof trusses should be from safe work platforms. Care must be taken that removal of trusses does not cause instability of walls.

21.4 Mechanical Demolition

All equipment must be:

- operated by a competent person
- used and maintained as recommended by the equipment's manufacturer or supplier
- if intended to be used in an area where it could be struck by falling debris, provided with overhead protection

All cranes used on site must be fitted with a load indicator and hoist limiting (Anti-Two-Block) device where appropriate, operated in compliance with relevant Regulations.

Where cranes are used to suspend loads that are to be cut and then lowered to the ground, it is important that the load is accurately calculated; it may be necessary to cut samples for test weighing to determine the weight per unit length or area.

21.5 Bracing

All bracing used must be adequately braced in two directions. Care must be taken to ensure that the bracing used are structurally sound and can safely support the loads to which they will be subjected and that those loads do not exceed the manufacturer's specified ratings.

21.6 Removal of Demolition Debris

No floor or any member supporting it is to be cut or removed until demolition above that floor has been completed and the demolished material removed.

Barricades and notices must be used to restrict access to the zone of demolition at all times during the progress of the demolition work.

Lift openings other than the clean-out hole must be properly sealed off during the dropping of rubble.

Major items of demolition debris, that would be dangerous to drop down a shaft, through an opening, or over the side of the building, must be lowered in a controlled manner.

If machines are being used to tip rubble down to nominated rubble area, vehicle buffers must be provided to prevent the machine from falling over the edge. The buffers must be high enough to prevent the machine from riding over them and solid enough to stop a fully loaded machine running through or dislodging them.

21.7 Restriction of Personnel

The area machines are working in must be barricaded off to prevent other personnel entering the area.

21.8 Demolition by Wire and Chain Pulling

Where mechanical demolition is to be carried out by chain or wire rope pulling, the pulling medium will be a securely anchored winch or equipment having a mass adequate to apply the required tension without sliding or lifting from the surface on which it is located.

No person is to be on either side of the wire or chain or in any position where they could be struck by the wire or chain in the event of failure.

Walls should be cut into appropriate sections having regard to their height, width, weight and construction. The chains or wire ropes must be attached to their respective sections prior to the first pull being made. The free ends of the chains or ropes must be left a safe distance from the structure.

Where reinforced concrete walls are to be chased to facilitate felling, the horizontal chase should be made first, followed by any vertical chase.

Vertical reinforcing bars must not be cut until after the wall has been pulled over.

21.9 Machine Mounted Impact Hammer

A machine-mounted impact hammer is a larger and heavier duty form of the hand-held pneumatic hammer, and may be pneumatically or hydraulically operated. As in the case of the lighter equipment, it is useful for breaking up massive construction such as concrete base slabs or the like, and for breaking larger pieces of debris into manageable sizes.

When used on vertical features such as columns or walls, the columns or walls must not be of such a height as to create a risk of debris falling onto the machine or operator. When used on suspended floors precautions must be taken.

21.10 Power Grapples

Power grapples may be used to handle waste material, either to move it about a site or to load other vehicles when disposing of the waste. As some debris resulting from demolition has a high density, care must be taken to avoid overloading the equipment both to avoid damage to the equipment itself and to avoid the risk of the machine overturning as a insult of instability induced by a heavy load.

21.11 Mechanical Demolition by Excavator Arm

The pusher arm should be used only when the equipment is on firm level ground. It should not be overloaded and should generally be used from outside and not from inside the building. No person should be within that distance of the building where debris is liable to fly.

The cab of the excavator will be robust enough to withstand impact from flying debris and the cab windows will be made shatter-proof glass.

The height of the building must, in the first instance, be reduced to a height to suit the machine being used; then the height must be reduced progressively by pushing small sections to the ground.

22 Incident Reporting and Investigation

22.1 General

ALL INCIDENTS AND INJURIES, NO MATTER HOW MINOR ARE TO BE REPORTED TO A WORKER'S DIRECT SUPERVISOR IMMEDIATELY.

All reporting shall be done in a timely manner as per the guidelines in this section. Contractors and other Employers are required to complete an investigation and submit a preliminary or final

copy within 24 hours of the incident occurrence to either the Project Safety Coordinator or Project Manager.

All accident/incident investigation shall be done as a “fact finding”, not a “fault finding” exercise. The main goal is to determine the root cause of the incident in order to prevent similar recurrences.

All “Near Misses” which have the potential to cause an incident requiring medical treatment or reporting to a regulatory body shall be reported to JDS Management and investigated as incidents. Near Misses which do not conform to this standard shall be informally investigated with the intent to implement feasible Corrective Actions.

22.2 Mine Site—All Areas

All Incident Paperwork shall be kept at the JDS office closest to the work area and shall be maintained for a period of not less than 5 years.

22.2.1 Completion of Forms and Reporting/Notification

All incidents need to be reported to JDS management as soon as is reasonably possible, but no more than 1 hour after the incident occurs. All employers are responsible for undertaking an investigation for all incidents and submitting an investigation report to the JDS Safety Coordinator or Project Manager within 24 hours of the incident. The incident report may be one of the Employer’s choosing but must contain, as a minimum, the following information:

1. The date and hour of occurrence;
2. The date the investigation began;
3. The names of individuals participating in the investigation;
4. A description and pictures of the incident site including surrounding area;
5. An explanation of the accident or injury, including a description of any equipment involved and relevant events before and after the occurrence, and any explanation of the cause of any injury, the cause of any accident or cause of any other event which caused an injury;
6. The name, occupation, and experience of any worker involved along with a statement from such person;
7. A sketch, where pertinent, including dimensions depicting the occurrence; and
8. Corrective Actions (CAs) or a description of steps taken to prevent a similar occurrence in the future.

22.2.2 Terms and formulas

(not in alphabetical order)

TRIF [Total Recordable Injury Frequency or “IR”] = (number of Medical Aid and Lost Time cases x 200,000) divided by hours of employee exposure (on site work hours).

SM [Severity Measure] = (sum of days lost to injury x 200,000) divided by hours of employee exposure.

Medical Treatment means the management and care of a patient to combat disease or disorder but does not include visits to a physician or other licensed health care professional solely for observation or counselling, the conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g., eye drops to dilate pupils) or First Aid.

First Aid is defined as (this list is all-inclusive and does not leave room for interpretation outside of the following definitions):

- Using a non-prescription medication at non-prescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);
- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);
- Cleaning, flushing or soaking wounds on the surface of the skin;
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);
- Using hot or cold therapy;
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
- Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- Using eye patches;
- Removing foreign bodies from the eye using only irrigation or a cotton swab;
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
- Using finger guards;
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
- Drinking fluids for relief of heat stress.

Occupational Injury is any injury occurring on the work site in which an employee is injured while undertaking work-related duties". Generally, aggravation of pre-existing injuries and injuries sustained traveling to and from the work site will not be classified as Project related injuries.

Incident as per JDS definition shall be any circumstance whereby an action on site results in an unintended consequence, and which consequence may be personal injury, property damage, or environmental damage and also includes “near misses” or those actions which almost result in unintended consequences. Incidents do not include mechanical failure unless the mechanical failure results in a secondary incident.

22.2.3 Completion of Forms and Reporting/Notification

An occupational injury or illness will meet the general recording criteria, and therefore be recordable, if it results in any of the following:

- Death;
- Days away from work;
- Restricted work or transfer to another job;
- Medical treatment beyond first aid;
- Loss of consciousness, or
- Significant injury or illness as diagnosed by a Physician.

An employee is on “Restricted Work” if the employer keeps the employee from performing one or more of the routine functions (do a job 1/week or more) of his or her job, or from working the full workday that he or she would otherwise have been scheduled to work; or a physician or other licensed health care professional recommends that the employee not perform one or more of the routine functions of his or her job, or not work the full workday that he or she would otherwise have been scheduled to work.

22.2.4 Serious Incidents and Accidents

Serious incidents and accidents will invoke the Emergency Response Plans.

Unless granted permission by a Mines Inspector, no Employer (Contractor or Owner’s representative) may alter an accident site or an accident related area until completion of all investigations pertaining to the accident except to the extent necessary to rescue or recover an individual, prevent or eliminate an imminent danger, or prevent destruction of equipment.

23 Disciplinary Action

The JDS Management reserve the right to deny access to the Sa Dena Hes Project to any individual or Contractor who is in non-compliance with any Part of this Health and Safety Plan or as a violation of the Terms of Contract related to Safety.

A worker who has been removed from the worksite may be allowed back onto the work site but only after a meeting of the worker, the worker’s employer, the Project Manager, and the Project Safety Manager, or the Project Management’s designates and where an agreement for further

access is made based on individual circumstances. It is unlikely that a worker will be allowed re-access to the work site after a violation of a Safety Absolute.

All Employers on the worksite are expected to maintain reasonable Disciplinary Action Policies related to ensuring their due diligence in keeping their workers safe.

Generally, it is expected that all Employers will keep in mind the following guidelines when administering Disciplinary Action, specifically for violations of Safety Rules:

- All Disciplinary Actions shall be in writing.
- Disciplinary Actions, as applicable, must accompany all Incident/Investigation Reports.
- Notwithstanding "Rules", for a first violation of this Health and Safety Plan, workers are to be issued a "1st Warning".
- For a second violation workers are to be issued a "2nd and Final Warning".
- For a 3rd violation, disciplinary action including termination of employment may occur depending on the individual circumstances involved. It is fully anticipated, given the limited time frame of the Project that a Worker with three (3) Safety Violations will be denied access to the Project as an "unacceptable safety risk to themselves and others".

24 Emergency Preparedness & Response

A separate document will be prepared related to Emergency Response and will be posted on site. This document will be created through coordination of resources between Teck and JDS to ensure an integrated plan that will apply to all personnel on site. All Contractors and other employers are to post a copy of the Emergency Preparedness & Response Plan inside their site office, trailer or sea-can.

Emergency Response drills, which may also be completed in conjunction with Fire Drills and/or Evacuation drills will be completed every three months. The drills will be scheduled by JDS Management and executed in cooperation from all Contractors.

24.1 Medical

Immediate First Aid treatment supplies and personnel must be kept on hand by all Employers working on the work site. JDS will keep an Emergency Response Plan for the work site with respect to emergency evacuation requirements of injured workers, in the form of communication with outside emergency responders, emergency transport (ambulance and air evacuation), emergency supplies (stretcher, blanket, etc.). Neutralizing or clean up agents required to neutralize or clean up hazardous chemicals being used by a Contractor are the responsibility of the Contractor and shall be available on site and conspicuously marked. Eye wash stations are required by all Contractors.

24.2 Fire

A minimum 10 Lb. ABC type fire extinguisher shall be available on any and all equipment used in and on the Project which contains an internal combustion engine including heavy equipment, light vehicles and auxiliary equipment such as air compressors, generators, light towers, etc.

Each employer is expected to ensure that their fire extinguishers are visually checked at least once per month by a competent employee and shall keep a record of the check on an extinguisher tag. An in depth inspection of all on-site extinguishers shall be made at least yearly and arrangements must be made by each Employer to have such an inspection.

Any extinguisher that is discharged accidentally or in order to control a fire shall be replaced or recharged as soon as possible and no more than 24 hours after such discharge.

24.3 Earthquake

The keys to coping with natural disasters such as an earthquake are awareness and planning. The following guideline is designed to help prepare for and get through such an emergency should it occur in the general project area.

During a quake, workers inside a building shall move expediently, but not run, to the exterior of the building. Workers shall get well away from the building, staying away from all natural gas storage or transmission lines and shall proceed to the nearest Emergency Assembly Area. Workers shall stay well away from electrical facilities such as power-lines, transformers or large junction boxes. Workers shall not re-enter buildings until directed to do so by Project Management.

During a quake, workers outside of buildings shall look around and distance themselves from power poles and electrical lines. Other areas such as below heavy equipment or around fuel storage areas must be avoided. Workers shall proceed to the nearest Muster Point situated which shall be situated in flat, open areas to which provide protection from falling debris and trees.

After a quake, a head count shall be done by all Employer supervision and management for employees for whom they are accountable for. Contractors and contract workers shall not resume work until authorized to do so by Project management.

24.4 Act of Vandalism

An act of vandalism may occur which may result in a secondary incident such as Personal Injury, Fire or Property Damage. In all cases where vandalism occurs the specific Emergency Response Plan related to the type of Emergency shall be enacted. Where no Emergency exists as the result of Vandalism, such vandalism shall be reported immediately to JDS Management for investigative follow up and reporting to local authorities.

25 Reporting & Statistics

Statistical analysis is important not only to determine how well we're doing as a Project, from a safety perspective, but is also critical in determining where we focus the majority of our efforts as a Project Team (Owners, Owners' representatives and Contractors) to get the most value for our effort in maintaining and improving safety.

All Employers on the Sa Dena Hes site are responsible for completing a Weekly Report that is to be submitted no later than the Monday at noon for the preceding "Sunday to Saturday" work week. The form must be completed in full and will include:

- Total Hours of work of all employees on the work site, including supervision and clerical staff.
- The total number of incidents, by category, including 1st Aids, Medical Treatments, Lost Time Injuries, Property Damage >$5K (equipment & facilities), Property Damage <$5K, Fires, Motor Vehicle Accidents (MVAs), Environmental—Non Reportable, Environmental—Reportable.
- A one or two line summary of each incident that has occurred.
- The number of workers that are on restricted work and the total restricted work days that they have had as the result of Project work related incidents.
- The number of workers that are off work as the result of Project work-related incidents and the total lost time days that they have had.
- The number of Inspections completed in the week and the total "to date".
- The number of daily Toolbox Talks completed in the week and the total "to date".
- The number of Safety Meetings completed in the week and the total "to date".
- The number of Disciplinary actions implemented in the week and the total "to date".
- A brief summary of any safety issues and what is being done to correct those issues and what assistance or resources are required from JDS management to implement corrective actions.
- Any initiatives that an Employer is implementing to improve safety.

Contractors are required to submit a similar form with all pertinent information for any approved Subcontractors that are on the work site.

26 Off the Job Conduct

JDS recognizes that the support of communities around the Sa Dena Hes site is paramount to the success of our Project. All workers on the Project are expected to exhibit behaviour which reflects the values of the project including honesty, integrity, exhibiting positive behaviour and, generally, being a good, Corporate neighbour.

Failure to represent the Project in a positive manner will result in measures to address any issues which arise in consultation with Contractor management and involved individuals.

APPENDIX C

GENERAL SITE PLAN AND MILL INFRASTRUCTURE BUILDING LAYOUTS

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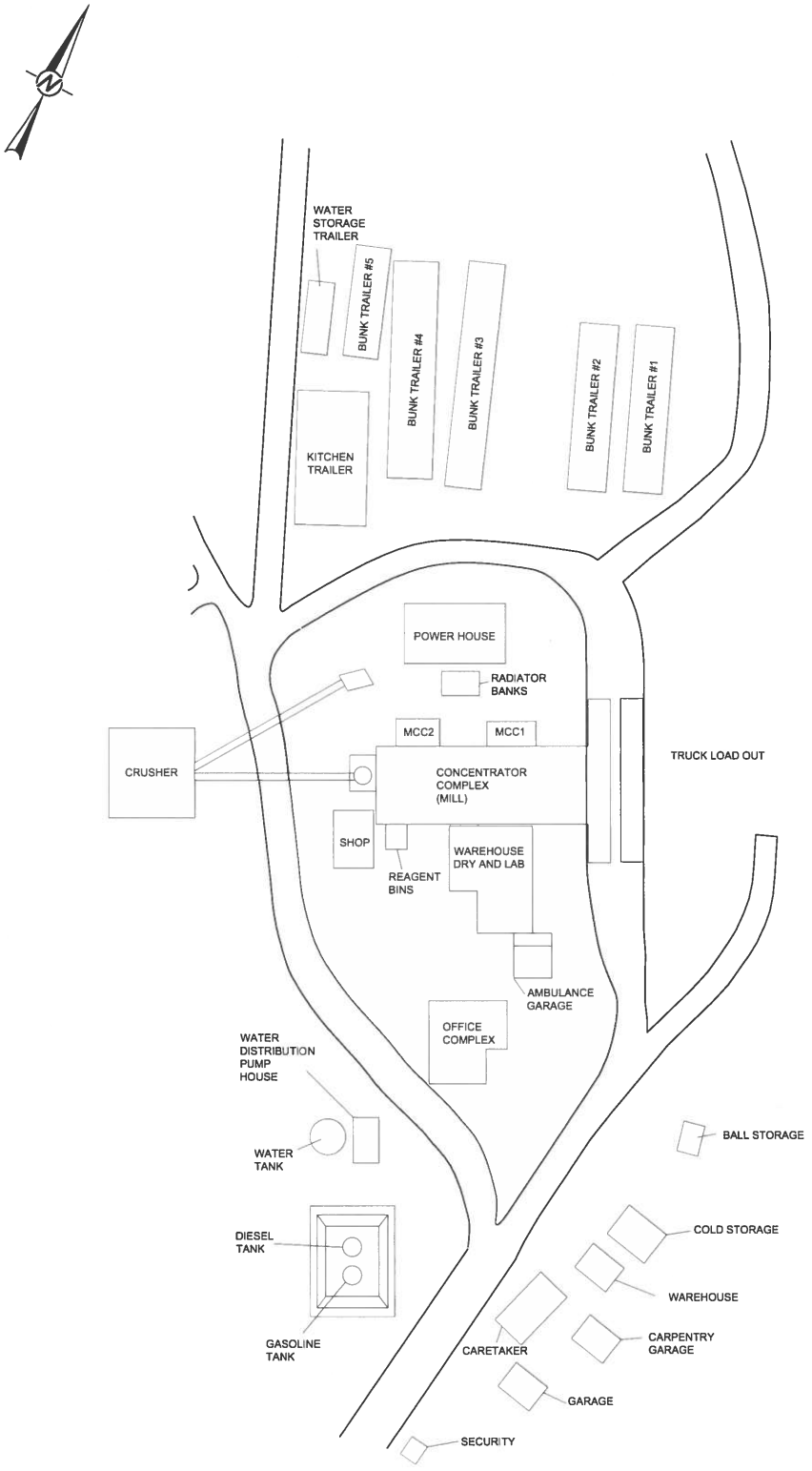

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

SITE PLAN

Golder Associates

PROJECT No.		12-1021-0008-2000	FILE No.		1210210006-2000-01
DESIGN	RY	17OCT12	SCALE		AS SHOWN
CADD	JHL	30OCT12			
CHECK	RY	03DEC12			
REVIEW	RE	03DEC12			

FIGURE 1

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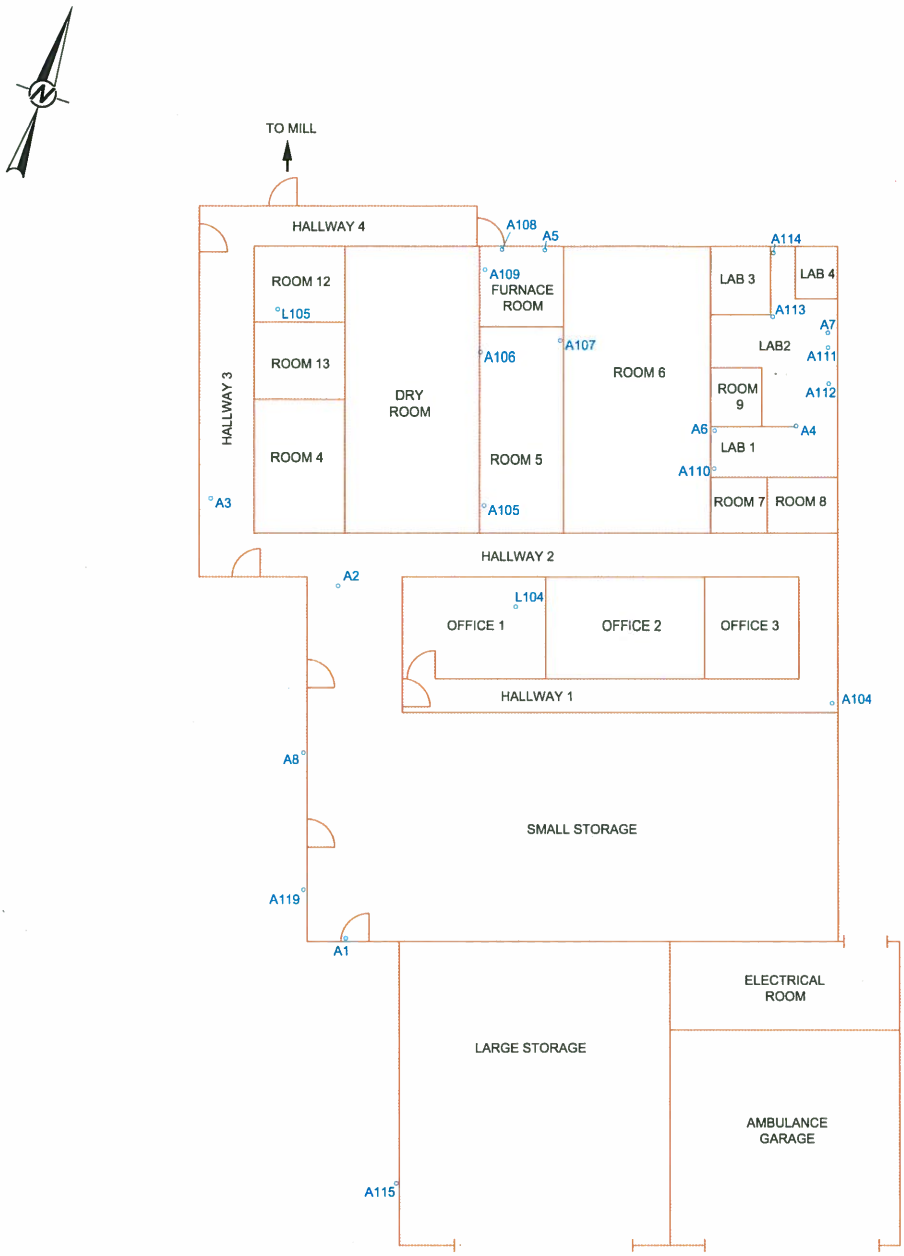

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

WAREHOUSE DRY & LAB

Golder Associates

PROJECT No.	12-1021-0006-2000		FILE No.	1210210006-2000-01
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FIGURE 3

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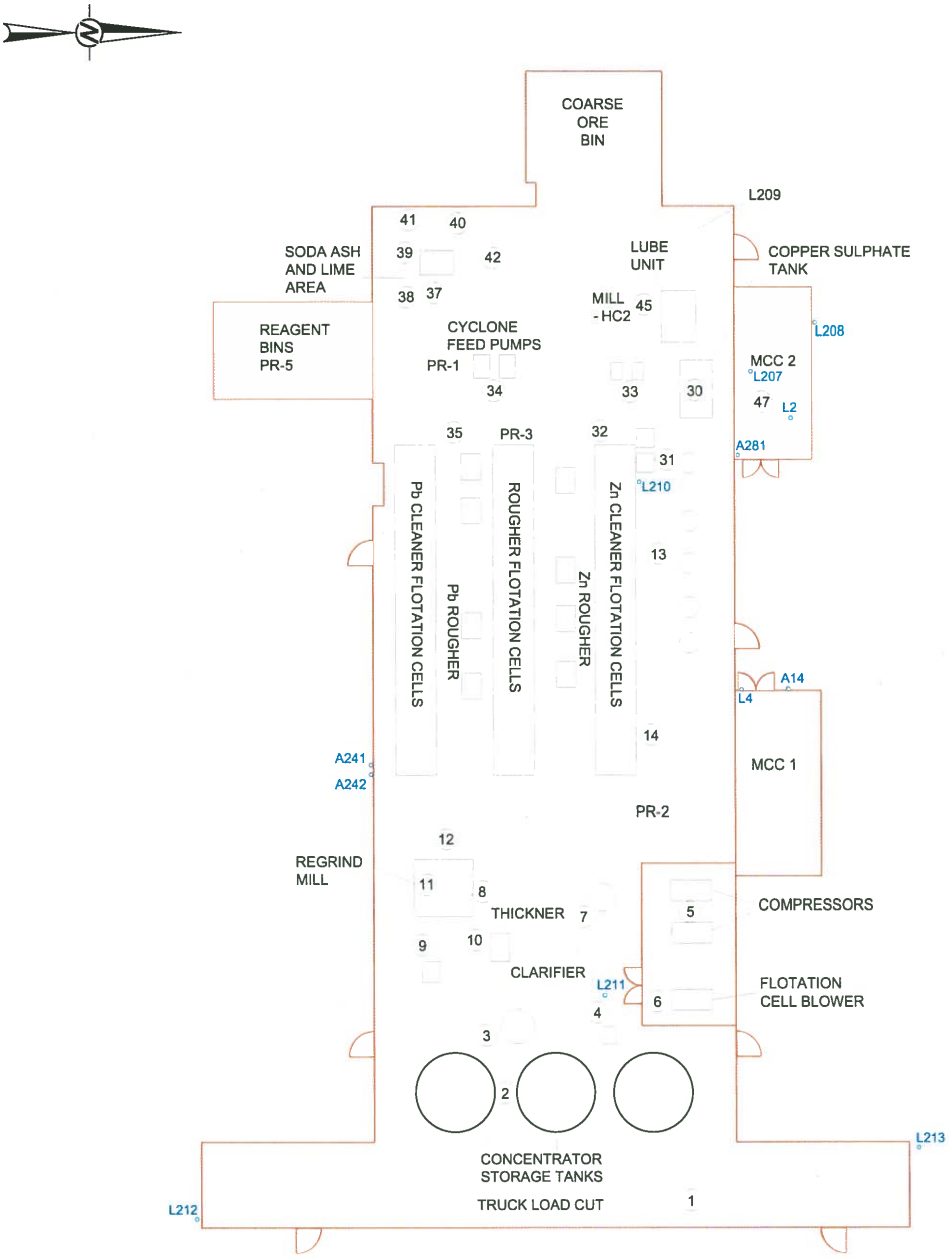

LEGEND

1	MILL EQUIPMENT
L212	SAMPLE NUMBER

NOTES

NOT TO SCALE

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

CONCENTRATOR GROUND FLOOR

Golder Associates

PROJECT No.	12-1021-0006-2000		FILE No.	1210210006-2000-02	
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CADD	JHL	30OCT12			FIGURE 2
CHECK	RY	03DEC12			
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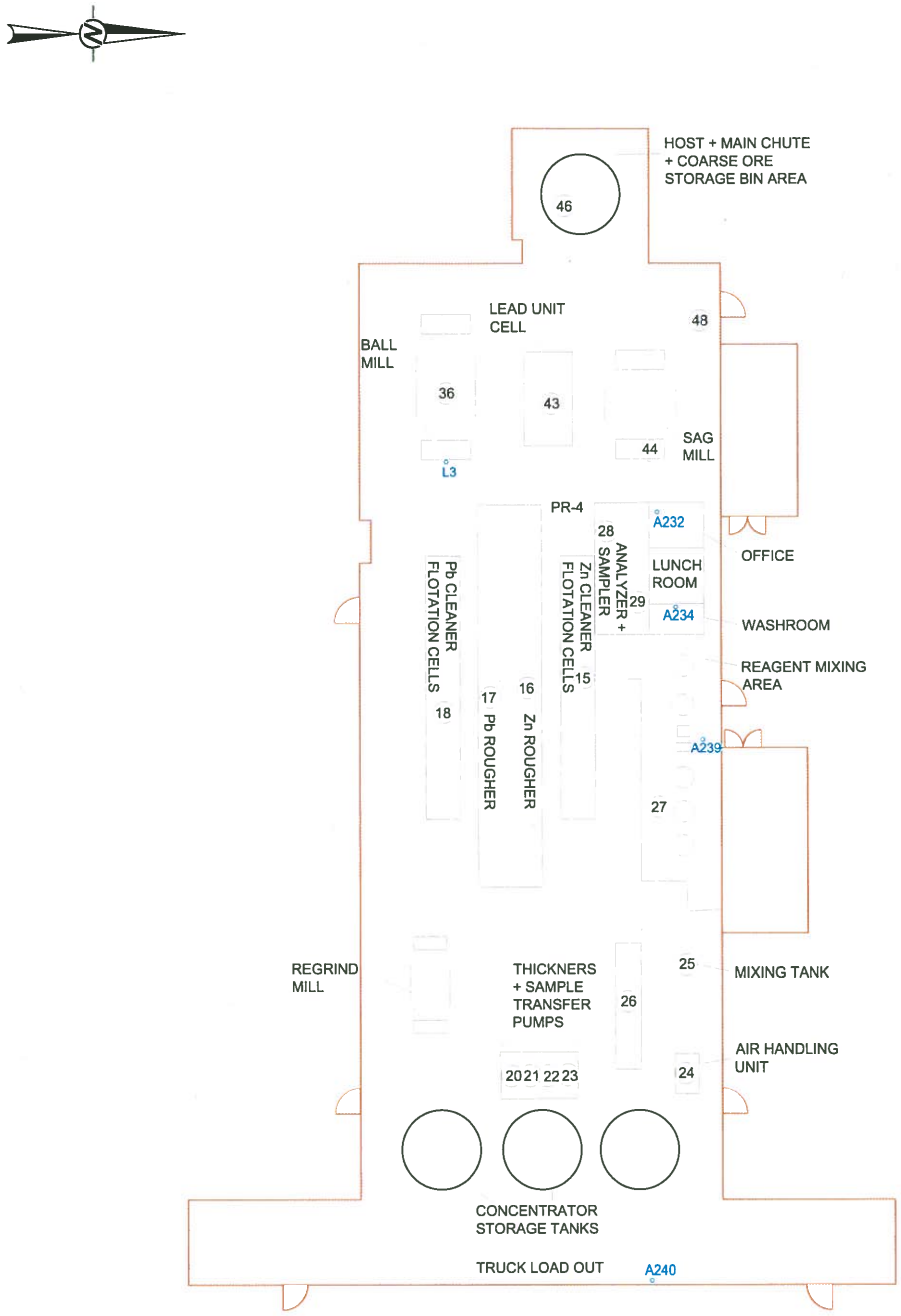

LEGEND

1	MILL EQUIPMENT
L212	SAMPLE NUMBER

NOTES

NOT TO SCALE

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

CONCENTRATOR
ELEVATION: 1204.200

Golder Associates

PROJECT No.	12-1021-0006-2000		FILE No.	12102100006-2000-02	
DESIGN	RY	17OCT12	SCALE	AS SHOWN	
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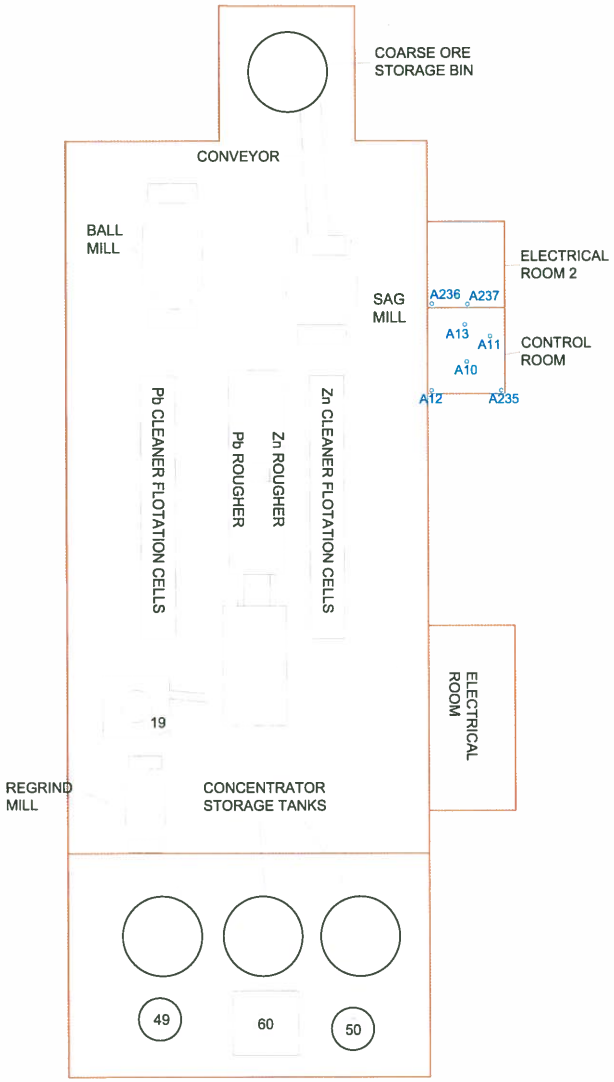
CHECK	RY	03DEC12			
REVIEW	RE	03DEC12			

FIGURE 3

N:\Our-Graphics\Projects\2012\1021\12-1021-0006\Drafting_Phase 2000\1210210006-2000-02.dwg | Layout: 4 CONCENTRATOR EL 1208 000 | Modified: JHLee 12/06/2012 4:06 PM | Plotted: JHLee 12/06/2012



LEGEND

1	MILL EQUIPMENT
L212	SAMPLE NUMBER

NOTES

NOT TO SCALE

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

CONCENTRATOR
ELEVATION: 1208.000

Golder Associates

PROJECT No.	12-1021-0006-2000		FILE No.	1210210006-2000-02	
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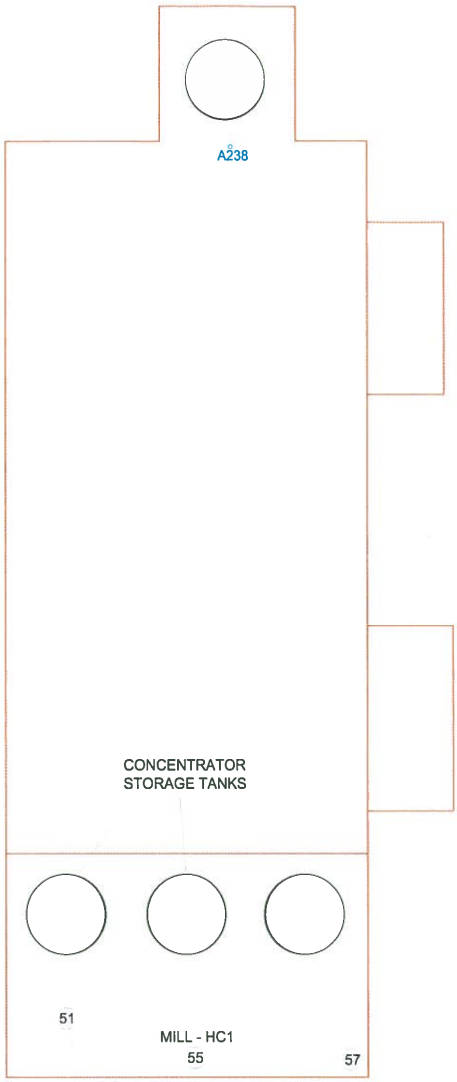

LEGEND

1	MILL EQUIPMENT
L212	SAMPLE NUMBER

NOTES

NOT TO SCALE

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

CONCENTRATOR
ELEVATION: 1215.000

Golder Associates

PROJECT No.	12-1021-0006-2000		FILE No.	1210210006-2000-02	
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CADD	JHL	30OCT12			
CHECK	RY	03DEC12			
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FIGURE 5

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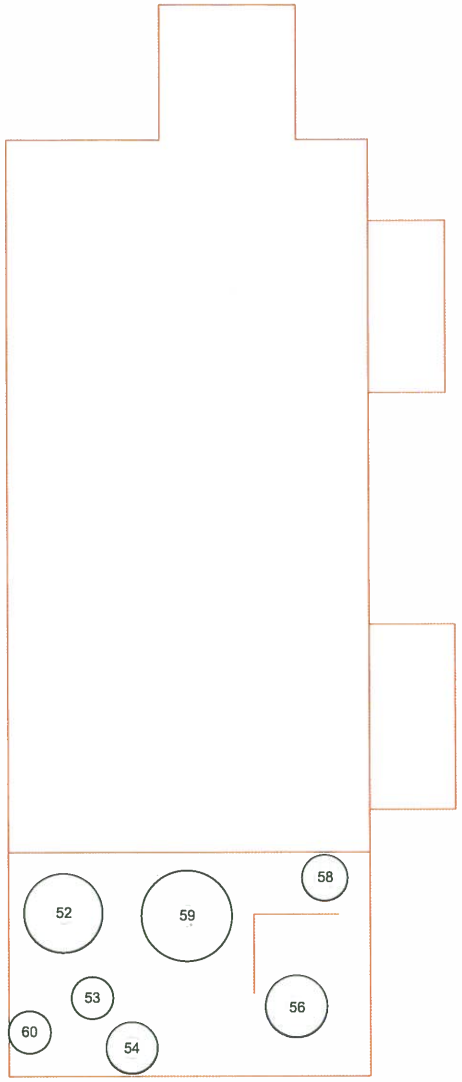


LEGEND

1 MILL EQUIPMENT

L212 SAMPLE NUMBER

NOTES

NOT TO SCALE

PROJECT

TECK METALS
SA DENA HES HAZARDOUS BUILDING MATERIAL ASSESSMENT
SA DENA HES MINE, YUKON TERRITORY

TITLE

CONCENTRATOR ELEVATION 1215.200

Golder Associates

PROJECT No.		12-1021-0006-2000	FILE No.	1210210006-2000-02
DESIGN	RY	17OCT12	SCALE	AS SHOWN
CADD	JHL	30OCT12		
CHECK	RY	03DEC12		
REVIEW	RE	03DEC12		

FIGURE 6

APPENDIX D

PHOTOGRAPHS

Photograph 1: Pre-demolition view of Concentrator Building (centre), Power House (left) and conveyor system. (April 19, 2014)

Photograph 2: Pre-demolition photo showing the Shop (foreground) and Cold Storage (background) foldaway buildings, the Warehouse, Dry and Lab (left), and the Water Tank and Pump House (right). (April 19, 2014)

Photograph 3: Progress photo of the Concentrator area from the top of the former Crusher area. (July 12, 2014)

Photograph 4: Completed mill dismantling photo taken from former Crusher area. (August 16, 2014)

Photograph 5: Energy North Construction previously removed asbestos-containing window caulking from Lab building. (April 26, 2014)

Photograph 6: Energy North Construction's removal of hazardous materials from the Mill. (April 29, 2014)

Photograph 7: Demolition of the Warehouse, Dry, and Lab. (May 4, 2014)

Photograph 8: Demolition of the Warehouse, Dry, and Lab. (May 4, 2014)

Photograph 9: Exterior panel removal from the Crusher Building. (May 5, 2014)

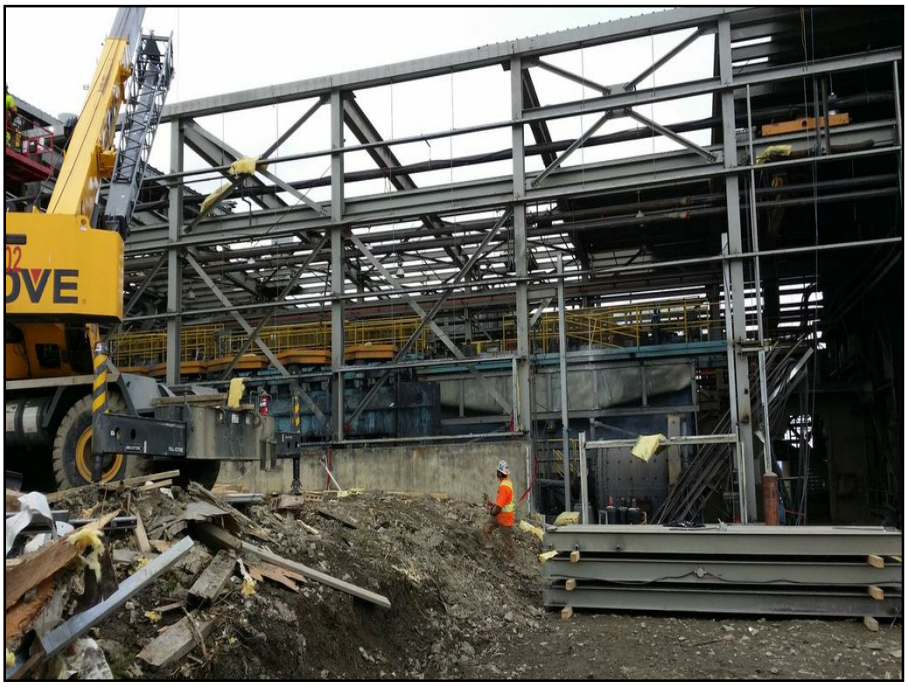
Photograph 10: All structural steel has been removed from the Crusher Building. (July 1, 2014)

Photograph 11: Reclaim conveyor being disconnected from the Mill. (May 8, 2014)

Photograph 12: Supply conveyor being disconnected from the Mill. (June 28, 2014)

Photograph 13: Upper deck of 20 ton overhead crane from grinding area removed. (May 28, 2014)

Photograph 14: Ball mill secured and bracing installed while final cutting is taking place for the removal. (July 17, 2014)



Photograph 15: Photo showing interior of the process area of the Concentrator Building. (May 11, 2014)

Photograph 16: Photo showing the process area of the Concentrator Building as structural steel removal begins. (May 15, 2014)

Photograph 17: Removing lunch room from the concentrator building. (May 27, 2014).

Photograph 18: Process area floor exposed and all equipment and structural steel removed. (June 2, 2014)

Photograph 19: Removal of roof beams from powerhouse building. (May 24, 2014)

Photograph 20: Excavator demolishing MCC#1 cinderblock wall. The Power House Building that was to the left is now gone. (May 29, 2014)

Photograph 21: Progress photo of Reagent Area of the Concentrator Building dismantling. (May 15, 2014)

Photograph 22: Removal of structural roof beams is completed from the reagent area of the Concentrator Building. (May 26, 2014)

Photograph 23: Photo showing structural steel dismantling from the remainder of the Concentrator Building load out area. (July 15, 2014)

Photograph 24: External structural beams and scale system have been removed from the load out area below the Reagent Area of the Concentrator Building. (July 17, 2014)

Photograph 25: **Diesel storage tank was removed in three pieces. Photo shows second piece of diesel storage tank being removed. (July 8, 2014)**

Photograph 26: **Photo showing dismantling of the water storage tank. (July 10, 2014)**

Photograph 27: Gasoline storage tank (empty) leaving site. (July 7, 2014)

Photograph 28: Photo showing widest load (Diesel tank) that left the site at 6.8 m wide. The security shack steps and the gate had to be moved for it to leave site. (July 7, 2014)

Photograph 29: Photo showing the dismantling of the Cold Storage Foldaway Building. (July 4, 2014)

Photograph 30: Photo showing final section of the Cold Storage Foldaway Building being removed. (July 6, 2014)

Photograph 31: Photo showing interior demolition debris cleared out from shop/office foldaway building. (June 16, 2014)

Photograph 32: Photo showing progress on the deconstruction of shop/office foldaway building. (July 10, 2014)

Photograph 33: Pre-demolition view of wooden pump house and generator building. (April 25, 2014)

Photograph 34: Completed demolition of generator shacks. (June 1, 2014)

Photograph 35: Photo showing JDS placing demolition material at the landfill. (June 17, 2014)

Photograph 36: JDS bulldozer capping the mill dismantling landfill cells. (July 31, 2014).