

**gstewart**

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**From:** Rhonda <rhonda@canadianzinc.com>  
**To:** <eao2@mveirb.nt.ca>  
**Cc:** 'Peter' <peter@canadianzinc.com>  
**Sent:** Wednesday, October 25, 2000 3:43 PM  
**Attach:** mveirb10-25-00.PDF; MV2000C0030 Project Description.PDF  
**Subject:** Land Use Application MV2000C0030 - Prairie Creek Mine - Email 1 of 2

**COPY**

Please find attached two of three .pdf files addressed to Mr. Gordon Stewart of the Mackenzie Valley Environmental Impact Review Board from Mr. Peter Campbell of Canadian Zinc Corporation. The attached files are a cover letter and a detailed project description regarding our Land Use Application MV2000C0030 - Prairie Creek Mine.

The third attachment, a 1:5000 scale map showing the general exploration area and proposed drill hole locations, will be sent under a second email as it is 4.3 MB and may be too large to send with the first two attachments. Please advise if you do not receive the second email.

Yours truly,

Rhonda Schultz, Office Administrator  
For J. Peter Campbell, VP Project Affairs

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**CANADIAN ZINC**  
CORPORATION

October 25, 2000

Mr. Gordon Stewart  
Environmental Assessment Officer  
Mackenzie Valley Environmental Impact Review Board  
PO Box 938  
200 Scotia Centre  
5102 – 50<sup>th</sup> Ave.  
Yellowknife, NT  
X1A 2N7

Dear Mr. Stewart:

**Re: Land Use Application MV2000C0030 – Prairie Creek Mine**

Further to your request, please find enclosed detailed project descriptions for the land use operations proposed in our Land Use Permit Application (MV2000C0030) of July 28, 2000 referred to the MVEIRB by the MVLWB on October 2, 2000. Also enclosed is a 1:5000 scale map showing the general exploration area and proposed drill hole locations.

We are forwarding this information by email in PDF format for your convenience with hard copy to follow by mail.

Should you have any questions or require any additional information please feel free to contact me at your convenience.

Yours very truly,

**CANADIAN ZINC CORPORATION**

*Original Signed By*

J. Peter Campbell  
VP Project Affairs



October 25, 2000

**Detailed Project Description  
Land Use Permit Application MV2000C0030**

**Introduction**

Canadian Zinc Corporation submitted an application to the Mackenzie Valley Land and Water Board for a Land Use Permit on July 28, 2000 in support of activity in and around its Prairie Creek minesite proposed for the fall of 2000. The land use operations proposed under the application were two-fold: firstly, to undertake additional surface exploration drilling of 6 holes in an area proximal to the existing underground workings; and, secondly, to recover a cache of diesel fuel left over by previous operators dating back to 1982 when the mine was under construction. Following preliminary screening, the application (MV2000C0030) was referred to the Mackenzie Valley Environmental Impact Review Board for further assessment.

This report describes in more detail the scope of activities proposed under the land use application for the purposes of assisting in this further assessment.

**Diamond Drill Program**

**Introduction**

As part of the ongoing process of establishing, confirming and enhancing the known mineral resource at the Prairie Creek property, Canadian Zinc proposed an exploration program to drill an additional 6 exploration holes, each approximately 500m in length, in an area adjacent to the existing underground workings.

Canadian Zinc has previously conducted numerous diamond drill programs on the property since acquiring the Prairie Creek Mine in 1991. Over this time, the Company has drilled some 128 holes, recovering more than 40,000 metres of drill core in the process. An equal, if not greater, amount of drilling was undertaken by previous operators prior to Canadian Zinc's involvement.

The Company's drilling focus to date has been primarily in the immediate mine site area, where 80% of the total exploratory work has been carried out. To support these programs the Company purchased 2 Longyear Diamond Drill Rigs in 1992, which were transported to the minesite by air and assembled in the on site shop facilities.



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At the time Canadian Zinc became involved in the property in 1991, the ore reserve estimate stood at 1.81 million tonnes grading 10.8% lead, 11.75% zinc, 0.4% copper and 182 g/tonne silver. As a result of the exploration drilling undertaken by Canadian Zinc since that time, the mineral resource now stands at 11.8 million tonnes grading 10.1% lead, 12.5% zinc, 0.4% copper and 161 g/tonne silver. The main objective of the current proposed drilling exploration program is to locate further mineral resources that will add to the existing defined metal resource.

### Proposed Drill Program

The six hole exploration drilling program is proposed to be carried out from surface along strike in a southwesterly to northeasterly direction over a distance of about 300 m and parallel to the existing underground workings from about the 925 to 975m elevation. The entire drill program is proposed to take place within 1000m of the existing minesite facilities and within the area of traditional mining activity at Prairie Creek and the boundaries of Mining Lease 2932 and Surface Lease 95F10/10-5-3.

The general area for the proposed locations of the six drill holes is shown on the accompanying 1:5000 scale map. It should be noted that the very nature of the mineral exploration in question means that precise drill locations cannot be identified beforehand. The exploration process is dynamic, and the decisions as to where to drill the next hole are based on information retrieved from core currently being drilled. As a result, the locations of individual drill holes are generalized and will be precisely located in the field at the time of drilling. In all cases, potential drill hole locations are in close proximity to the existing network of exploration roads. As a result, only minor extensions of existing roads will be required to access drill pad sites.

The program, as set out in this application, would employ 2 shifts of around the clock drilling involving 1 drill rig. The drill rig is a skid mounted Longyear Super 38 diamond drill run by a 350 GMC diesel engine capable of recovering either NQ or BQ sized drill core. The drill is approximately 22 feet in length and 12 feet in width and has a 25 foot tower that is fully adjustable to accommodate vertical or inclined holes. The drill is mounted on steel skid unit and is fully contained within a wooden frame shack. Drill pads are prepared and vary in size depending on the terrain but must be large enough to maneuver the drill into the proper position. The rig is moved by D-8 Cat along local tote roads. Drill rods and other equipment are contained in a separate sloop on skids. A water supply pump is set up at a local source and 1.5 inch flexible hose line is laid to the rig to a down hole high capacity Bean pump which delivers water to the drill bit for cooling and lubrication. Down hole additives are kept at a minimum and used only if required. Standard additives such as drilling mud (550X Polymer, Linseed soap) will be mixed in a contained tank at the drill rig before pumping down hole, standard rod grease (Big Bear anti-friction) is used and if poor down hole conditions exist G-Stop and/or a quick set cement is used to restore circulation. A sump is always established to retain any return waters in order to settle out any drill cuttings prior to general discharge.



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A 300 gallon diesel supply tank is located on the drill rig and supplied by hand pumps from 130 gallon tidy tanks located on the pick-up trucks. The diesel fuel is stored on site in a fully bermed fuel farm storage area. Fuel spill kits will be available both at the drill rig and in the main camp.

A registered first aider is at the drill rig at all times of operation. The rig will have radio communications with camp and first aid kits at the rig site. Upon completion of the hole the rig will be moved off site and the pad will be fully stabilized, and cleaned up. Access between the drill rig and camp will be by pick-up truck. All core will be sampled and stored in the main mine yard in constructed core racks.

The employees will stay in camp at the Prairie Creek Mine site where full accommodations are available. A qualified person carrying a valid required First Aid Certificate will be based in camp at all times. Communications are via satellite phone/fax and access is presently by air onto a privately owned 3000 foot airstrip from either Ft. Nelson or Ft. Simpson. It is anticipated that the entire program of drilling six holes each approximately 1500 ft. in length will take in the order of 40 days to complete.

### **Cat Camp Diesel Recovery Program**

#### **Introduction**

During construction of the Prairie Creek Mine in 1981-82 a transportation staging area was established at the "Cat Camp" site approximately 41 km. from the minesite along the winter access road. Cat Camp is located on the east flank of the Mackenzie Mountains west of the Ram Plateau and adjacent to the flood plain of an unnamed tributary of Sundog Creek which is in turn a tributary of the Ram River.

As a component of the staging area a fuel cache was maintained at this location. The fuel, diesel, is contained in three steel skid mounted 10,000 gallon bulk storage tanks for a total of 30,000 gallons. The tanks, along with a number of barrels of Jet B fuel are contained within two separate containment berms constructed of natural materials. Also located at the site are several trailers and a supply of culverts. These uses were originally covered under Land Use Permit N80F249 issued July 2, 1980 in the name of Cadillac Explorations Ltd.

As part of its environmental risk mitigation strategy, Canadian Zinc proposes to clean up the Cat Camp site thereby eliminating the potential environmental liability associated with long term fuel storage in a remote location.



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The Cat Camp site and the majority of the access road between there and the mine site are located on untenured land. In order to proceed with the clean up, Canadian Zinc requires a Land Use Permit issued pursuant to the Mackenzie Valley Resource Management Act. Accordingly, Canadian Zinc made application to the Mackenzie Valley Land and Water Board on July 27, 2000 for a Land Use Permit to rehabilitate the existing road between the minesite and Cat Camp, recover and transport the diesel fuel back to the minesite and clean up the Cat Camp site of all materials.

#### Road Access Rehabilitation

Access to Cat Camp for the purposes of recovering the diesel will require rehabilitation of the existing road alignment. The road leaves the minesite at about 870m elevation heading north adjacent to Prairie Creek for about 7 km before turning east to climb up through the Mackenzie Mountains. The summit of 1530m is reached at about 17 km from where it drops down to the 830m elevation at Cat Camp at 41km.

The road up to 17 km. was used as recently as 1995 under Land Use Permit N95C373 in support of exploration activity and requires only minor repair. The remainder of the road base from 17 to 41 km. is largely intact and passable with minor surface clean-up, however a number of washouts require more substantial repair. While part of the winter road, the majority of this portion, being through mountainous terrain, was constructed to essentially all weather standards by cut and fill along side slopes. Sections constructed over flood plain alluvial gravels towards the east end nearer to Cat Camp require only minor clean-up.

Repairs will be effected using local fill readily available adjacent to the existing roadbed, with culverts placed as necessary to control drainage. Where the potential for future washouts is identified, culverts will be removed and placed adjacent to the drainage for future use following completion of the program.

Road maintenance will be accomplished utilizing existing on-site equipment including a D-8 Cat, loader and backhoe. Culverts currently stored at Cat Camp will be used for drainage control. It is proposed that work be undertaken over the low flow period in July-August, and in a manner to minimize sediment loadings.

Road rehabilitation is expected to take approximately 3 weeks from commencement of activity.



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### Fuel Recovery

Upon completion of the access road upgrade, fuel recovery will commence using two Volvo 5350 rock trucks with suitable containment vessels, purchased for the purpose, located and fixed in the truck boxes. These vessels will likely be either collapsible fabric such as the Terra Tank Petro Guard bladders or lightweight polyethylene hard plastic tanks, either of which can be flown into the mine site.

Fuel from the Cat Camp bulk storage tanks will be transferred to the transport vessels in the Volvo trucks using portable gas pumps. Two attendants will be present at all times to supervise the fuel transfer. Fuel will then be transported to the minesite where it will be transferred to the main tank farm using a second gas pump. The main tank farm at the mine site consists of four welded steel bulk fuel storage tanks each with a capacity of 449,400 US gallons (1.7 million litres) for a total capacity of 1.8 million US gallons (6.8 million litres). The tank farm is contained within an impermeable clay-lined berm with the capacity to contain, at a minimum, the entire contents of the largest tank plus 10% of the capacity of the remaining tanks. The contained volume of the tanks is currently about 675,000 US gallons of diesel, so much more than sufficient capacity is available to store the 30,000 gallons from Cat Camp. The tanks are in good shape with no upgrades or maintenance necessary to make them serviceable.

Upon completion of the fuel transfer, the skid mounted tanks themselves will be transported to the minesite by flatbed. As well, the trailers, barrels and excess culverts will also be relocated to the minesite.

Containment berms will be inspected for contamination and any contaminated soil will be relocated to the minesite for placement in a plastic lined and covered cell for bioremediation. Following clean-up, berms will be recontoured to prevent water ponding and allowed to revegetate naturally.

### Spill Contingency Equipment & Supplies

Pick up trucks with spill kits consisting of absorbent pads, hand shovels, polaskis and fire extinguishers will be located at the transfer points to respond to any minor spills.

All vehicles and personnel involved in the program will be equipped with mobile radios to ensure adequate communication between parties is available at all times.

Heavy equipment used to upgrade the access road including the D8 Cat, loader and backhoe will be located at key points to allow for rapid response to any emergency situation along the transport route.



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### Spill Contingency and Response Procedures

The Prairie Creek Spill Contingency Plan provides basic response procedures and contacts for any spill incidents which may occur at the minesite.

For the Diesel Recovery Program any spill is to be responded to immediately.

#### Basic Safety Procedures

- No smoking
- No open flames or sparks
- Shut off engines

#### Spills during fuel transfer operations

- All transfer operations are to take place within existing containment berms
- Suspend transfer operation; shut down pump; secure hoses -- remove from tanks to prevent siphoning; shut any open valves
- If safe to do so, stop source of spill
- If safe to do so, contain spill
- Report spill immediately to on site supervisor by radio; request assistance if necessary; request additional equipment if necessary

#### Spills during fuel transport

- If safe to do so, stop source of spill
- If safe to do so, contain spill
- Report spill immediately to on site supervisor by radio; request assistance if necessary; request additional equipment if necessary

#### Spill Containment and Recovery

- Any spill is to be contained immediately, subject to it being safe to do so, using hand tools and/or heavy equipment, as necessary
- Berms, trenches, sumps or other physical means will be used to prevent migration of fuel to watercourses
- Hypalon liner, available at the minesite, will be used to seal containment structures to prevent seepage
- In the event fuel reaches a watercourse, containment will be achieved by damming or diverting flow to allow recovery of fuel from surface by pumping or use of absorbents
- Recovered fuel and absorbents will be put into barrels for disposal by incineration
- Contaminated soil will be recovered and returned to minesite for placement in bioremediation cell