IN THE SUPREME COURT OF THE NORTHWEST TERRITORIES

BETWEEN:

CANADIAN ZINC CORPORATION

APPLICANT

AND:

MACKENZIE VALLEY LAND AND WATER BOARD

RESPONDENT

UNDERTAKING
REGARDING THE AFFIDAVIT OF
ALAN TAYLOR OF VANCOUVER, BRITISH COLUMBIA

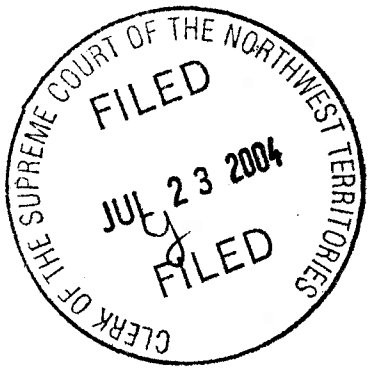
THE ATTACHED affidavit, having been duly sworn before a notary public in and for the Province of British Columbia, was sent to me by electronic transmission for filing in support of the Applicant's application for judicial review.

THE ORIGINAL affidavit is being sent to me by courier. I undertake to file the original with this Court as soon as possible.

UNDERTAKEN BY ME at the City of Yellowknife, in the Northwest Territories this 23rd day of July, 2004.

Fasken Martineau DuMoulin LLP
Per:

Solicitors for the Applicant



S-0001-CV2004000236
Yellowknife Registry

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BETWEEN:

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AND:

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RESPONDENT

AFFIDAVIT

I, Alan Taylor, Geologist, of 1202-700 West Pender Street, Vancouver, British Columbia, make oath and say as follows:

1. I am the Chief Operating Officer and Vice President, Exploration of Canadian Zinc Corporation ("Canadian Zinc"), the Applicant in this matter. As such, I have personal knowledge of the facts and matters hereinafter deposed to in this Affidavit, save and except where the same are said to be based upon information and belief, in which case, I verily believe them to be true.

2. Canadian Zinc, a Vancouver, British Columbia based company listed on the Toronto Stock Exchange, owns the Prairie Creek Mine (the "Mine"). The Prairie Creek Mine is located in the southern Mackenzie Mountains in the southwest corner of Northwest Territories at 61° 33' north latitude and 124° 48' west longitude. The Mine facilities are situated adjacent to Prairie Creek about 48 km upstream from its confluence with the South Nahanni River and 32 km upstream of the point where Prairie Creek crosses the boundary of the Nahanni National Park Reserve. The nearest major centre is Yellowknife, 550 km to the east. Year round access to the property is by aircraft, generally from Fort Simpson, NWT or Fort Nelson, B.C. The Mine is serviced by a 1,000 m gravel airstrip that is located approximately 1 km to the north of the mine site. Now produced and shown to me and marked **Exhibit "A"** to this my Affidavit is a copy of

a portion of a map entitled "Current Mineral Producers and Exploration Sites in the NWT", dated November 2003, and produced by Indian and Northern Affairs Canada, which shows the general location of the Prairie Creek Mine and the winter road, which connects the Mine to the Liard Highway. Now produced and shown to me and marked **Exhibit "B"** is a copy of a picture of the Mine site.

3. The Prairie Creek area has been the focus of exploration since minerals were first discovered in the area in 1928. The Mine was fully permitted for operations in 1982. The Mine did not, however, achieve commercial production due to the collapse in world silver prices. The existing mill and Mine facilities were originally constructed by Cadillac Explorations Ltd. ("Cadillac") in 1981-82 following a period of extensive advanced exploration activity, including substantial underground development, in the 1960's and 1970's. With the Mine facilities 90-95% complete and operations within about a month of commencing, Cadillac was forced into receivership. An investment of over $65 million had been made, which included the development of an underground mine, a 240-man camp, a 1,000 ton per day mill, the winter access road and other support facilities.

4. Canadian Zinc is the successor in title to Cadillac. Cadillac held its interest in the Prairie Creek project in joint venture with Procan Exploration Company (60/40). After the Cadillac bankruptcy, Procan acquired Cadillac's interest in the property. In 1991 Procan became Nanisivik Mines Ltd., by way of amalgamation. Canadian Zinc (previously named San Andreas Resources Corporation) optioned the property in 1991 and acquired its interest in 1993 directly from Nanisivik Mines Ltd.

5. The mine developed by Cadillac is the same mine currently owned by Canadian Zinc. The Mine contains the same minerals and metals and the Mine will produce the same type of concentrates; namely lead, zinc, and copper concentrates containing silver. The proposed mining operations of Canadian Zinc are the same as the proposed mining operations of Cadillac, mining the same minerals and producing the same metals. The Prairie Creek project remains the same mine and the same mineral deposit.

6. Since becoming involved with the property in 1991, Canadian Zinc has worked diligently towards continued exploration and development of the Mine. Prior to Canadian Zinc's

involvement, approximately 120 diamond drill holes had been completed at the Mine, totalling over 8,000 meters of exploration drilling, along with some 5000 meters of underground development. The ore reserve estimate in 1980 stood at 1.99 million tons grading 10.8% lead, 11.75% zinc, 0.4% copper and 182 g/tonne silver. Between 1991 and 1995, pursuant to Land Use Permits N92C778 and N95C373 Canadian Zinc completed an additional 129 diamond drill holes, totalling an additional 40,000 meters of surface diamond drilling, increasing the mineral resource more than five fold to its current 11.8 million tonnes grading 10.1% lead, 12.5% zinc, 0.4% copper and 161 g/tonne silver.

7. In 2000 and 2001, the Company applied for and received two land use permits (MV2000C0030 and MV2001C0022) for further surface diamond drill exploration programs. Both these permits were referred to and reviewed by the Mackenzie Valley Environmental Impact Review Board ("MVEIRB"). The first five holes of the Phase I program were completed during the summer of 2001 pursuant to MV2000C0030 and active exploration continued and is currently taking place pursuant to MV2001C0022.

8. A land use permit application was also submitted in 2000 for use of the road the road route from the Mine to the Cat Camp fuel cache, a distance of approximately 24 miles, to enable the company to clean up that site and transport the fuel into the Mine. This application was referred for Environmental Assessment by MVEIRB and following assessment the MVEIRB recommended that the permit be issued for use during the winter season. However, the permit has not been issued by the Water Board.

9. Applications were also submitted in March 2001 for further advanced exploration and test work in the form of an underground decline (Land Use Permit MV2001C0023) and a metallurgical pilot plant program (Water License MV2001L2-003). These applications completed the Environmental Assessment process under the *Mackenzie Valley Resource Management Act* in January 2002 with a recommendation being made to allow the developments to proceed, however the Report of Environmental Assessment was subsequently referred back by the Responsible Ministers to the MVEIRB for further consideration in September, 2002. This second phase of assessment was completed on April 4, 2003. The permits were issued on

September 10, 2003. The decision of the Water Board to issue the License is presently the subject of a judicial review proceeding in the Federal Court of Canada.

10. In addition to these advanced exploration, development, and feasibility-oriented programs, the Company has maintained an annual presence on the property undertaking an active exploration program and a continuous program of site clean-up and environmental risk mitigation in conjunction with ongoing care and maintenance.

11. In order to continue with its advanced exploration, development, and feasibility-oriented programs and assist in its site maintenance and clean-up efforts, Canadian Zinc wishes to use the existing winter road to provide access to and from the Mine. The road access is necessary to allow the company to bring in new fuel and other supplies and heavy equipment, not easily transported by air, to support further exploration and development at the Mine. The road would also allow the Company to proceed with the removal of aging equipment, stockpiled reagents which have outlived their shelf life, and other equipment and supplies which are not expected to be required in future mining operations. Of particular note, this will include the safe removal of the quantities of cyanide and other chemicals, which has been stored at the Mine since 1982.

12. Canadian Zinc submitted an application dated May 23, 2003 to the Board for a land use permit, later numbered MV2003F0028, for use of the winter road connecting the Mine with Liard Highway (the "Road"). Now produced and shown to me and marked **Exhibit "C"** to this my Affidavit is a copy of the application for the land use permit, accompanied by a cover letter dated June 15, 2003 and a project description with attached maps and drawings.

13. Areas proposed for use in association with the Road were all previously developed back in 1980-1982 in conjunction with mine construction. Cadillac was originally granted Land Use Permit N80F249 on March 8, 1980 authorizing a 170 km winter access road connecting the Mine with the Liard Highway near Lindberg's Landing just east of Blackstone, expiring July 1, 1981. The Road was originally constructed beginning in the summer of 1980. The permit was later extended to June 30, 1982 and again to June 29, 1983. The permit was not subsequently extended and expired on June 29, 1983. While in use, the road carried over 500 truck loads of equipment and supplies to the Mine.

14. Permit N80F249 allowed Cadillac to use the Road with the restriction that the portion of the Road from mile 23.4 to the Liard Highway could only be used in winter between December 20 and March 31 each year. The remaining (first) 23.4 miles of the Road was authorized for use all year and constructed to all weather, all season standards. Now produced and shown to me and marked **Exhibit "D"** to this my Affidavit is a copy of Land Use Permit N80F249 issued by the Regional Manager of Indian and Northern Affairs dated March 4, 1980.

15. Canadian Zinc's application for land use permit MV2003F0028 is for the same road which is the subject of N80F249. As the Road has remained in place unchanged, all that is required is some repair. Use of the Road would take place between December 15 and March 31 of each year.

16. Between 1994 and 1996, the portion of the Road which is constructed for all weather use was permitted to facilitate Canadian Zinc's exploration operations. Exploration under Land Use Permit N95C373 for a portion of the Road, from the Mine to kilometre 17, was screened in early March 1995 as a Level 1 Screening pursuant to the *Canadian Environmental Assessment Act* and it was determined by that screening that the project could proceed as it was not likely to cause significant adverse effects. Furthermore a letter was forwarded to the company in April 1995 authorizing their diamond drilling in the Prairie Creek mine area, which stated as a result of the environmental screening, it was determined any potential adverse effects were mitigable with known technologies and were not considered significant. Now produced and shown to me and marked **Exhibit "E"** to this my Affidavit is a copy of this correspondence and a copy of the N95C373.

17. The proposed use of the existing access road will entail no significant alteration to the previously permitted development. The roadbed is already in place. Rehabilitation, where necessary, will consist of grading the road surface and backfilling and stabilizing any washouts. No new road development is required and activity will be restricted to the existing road corridor as originally permitted in 1980 with no significant alteration. For the most part the road bed will be prepared using snow fills at least 10 cm in thickness over frozen ground. The road will be stabilized prior to spring break-up in each year that it is used, with snow fills removed from stream crossings and drainage channels re-established in order to prevent ponding and erosion.

The Road will be used for transport only over the period from late December or early January to March 31 of any year during the term of the permit.

18. The Road which is the subject of MV2003F0028 is and is intended to be the exact road which was the subject of N80F249:

(a) the road will employ the same route;

(b) will have the same profile;

(c) will not involve the construction or installation of any significant bridges or other significant works; and

(d) any renewal work will minimise erosion rather than exacerbate any minor erosion associated with the original work.

19. The Road was never "abandoned" by Canadian Zinc or its predecessors in title. Although the original Land Use Permit N80F249 expired on June 29, 1983 the Permit was never officially closed, no final inspection was ever conducted and this DIAND file on the MVLWB Registry remains open. Portions of the Road were subject to a land use permit issued in 1995 (N95F346). An Application for a permit to use portion of the Road was made in 2000 and recommended for approval for winter use by the MVEIRB in 2002.

20. Now produced and shown to me and marked **Exhibit "F"** to this my Affidavit is a copy of a map depicting the route alignment of the winter access road between the mine site and the Liard Highway.

21. The use of the existing winter road will also provide a more economical means of transporting equipment and supplies necessary in support of the planned advanced exploration and development activity to be carried out. Additionally, renewed road access will facilitate clean-up of the Cat Camp site, which entails removal of the bulk storage tanks, several trailers, some smaller tanks, barrels, a supply of culverts, as well as clean-up of any contaminated soils. Ultimately the Road is required to support future operations including site maintenance and reclamation.

22. Use of the Road is necessary based on the large volume and quantity of supplies (particularly fuel) and material requiring transport to and from the mine. The Mine is equipped with diesel generators. A large supply of diesel fuel remained in the tanks at the Mine since 1982, but over time the fuel has been depleted. There is no reasonable alternative to use of the Road.

23. A considerable number of environmental studies have been carried out in connection with the Road, including studies undertaken in conjunction with the original permitting in 1980-81. Such studies included fisheries and aquatic resources, vegetation, wildlife, surficial geology, terrain stability, soils and hydrology along the whole of the access road corridor. Additional work was undertaken by in 1994/1995 in conjunction with permitting at that time. These numerous and extensive studies, carried out over a period of more than 20 years, included field assessments and descriptions of fisheries and aquatic resources, as well as wildlife populations and wildlife habitat, have been used as the basis to determine that the impacts of the proposed winter access road development are expected to be negligible. A full list of the environmental reports which have been completed on the Road can be found at page 32 of the Application, **Exhibit "C"**.

24. The Road corridor was flown by BGC Engineering in 1995. BGC concluded, based on their observations, that the existing road, having been in place for 15 years at that time, had caused virtually no significant terrain disturbance. Also in 1995, J.D. Mollard and Associates Ltd. conducted a remotely sensed terrain analysis of 1:20,000 stereoscopic airphotos flown in July, 1994. Mollard's conclusions included:

(a) Almost no evidence of landslide activity resulting from construction of the winter access road;

(b) Almost no significant terrain effects created by construction and operation of the winter access road on or beyond the right of way;

(c) No significant detrimental effects caused where the winter access road crossed the Ram Plateau; and

(d) Very little clear-cut evidence of obvious and significant impacts in the landscape.

25. I have walked portions of the Road and have viewed it from the air numerous times since 1994. I have not seen anything inconsistent with Mollard's findings from 1994.

26. On June 1, 2004 Canadian Zinc received the Mackenzie Valley Land and Water Board's decision on the application for a land use permit for the winter access road. The application was denied. Now produced and shown to me and marked **Exhibit "G"** to this my Affidavit is a copy of the Reasons for Decision of the Mackenzie Valley Land and Water Board in the matter of "An Application for Land Use Permit MV2003F0028 for Operation, Maintenance and Use of a winter Road Alignment from the Canadian Zinc Corporation Prairie Creek Mine Site to the Liard Highway".

SWORN BEFORE ME at the City of Vancouver, in British Columbia, this 22 day of July, 2004.

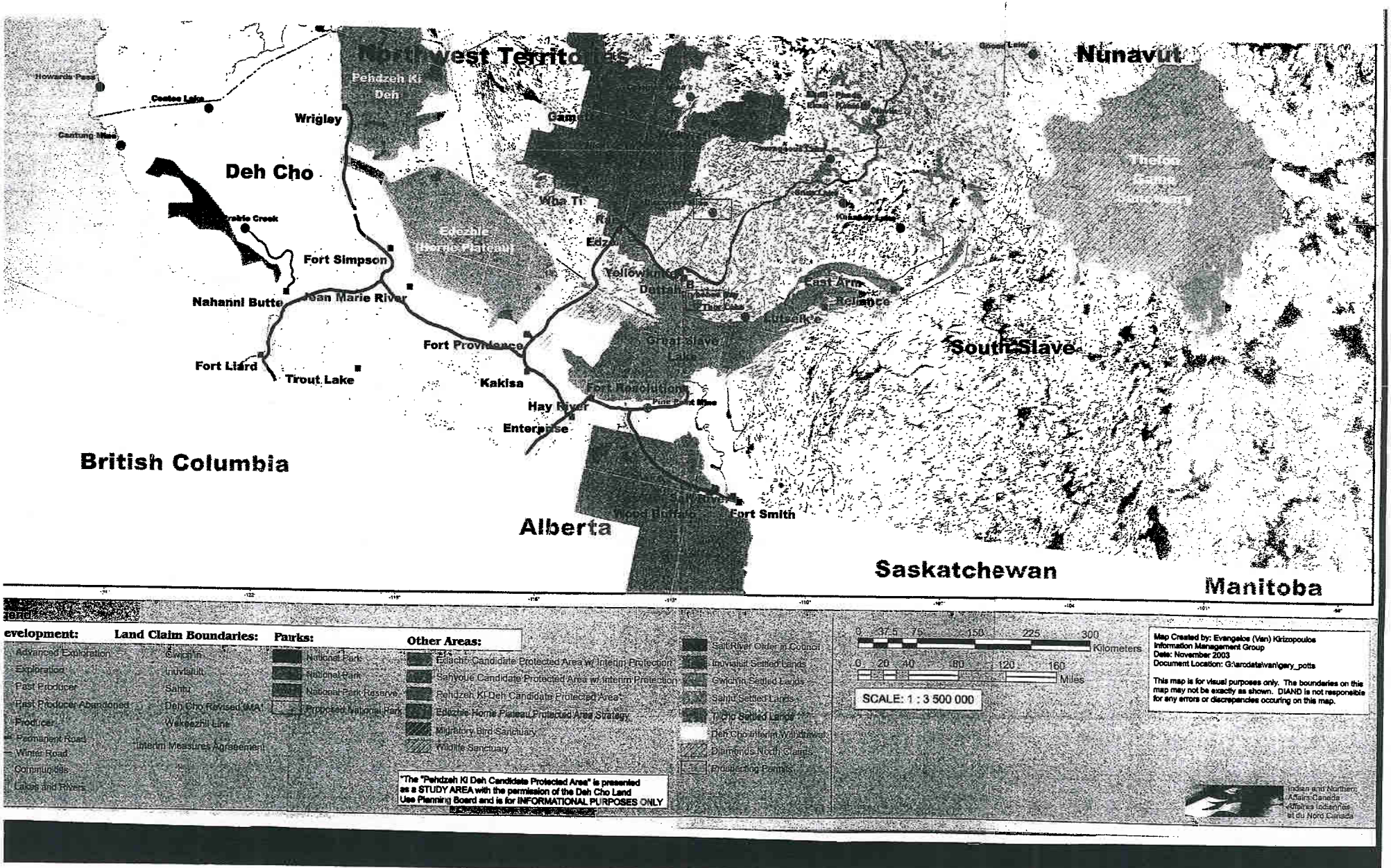
A Notary Public in and for the Province of British Columbia

ALAN TAYLOR

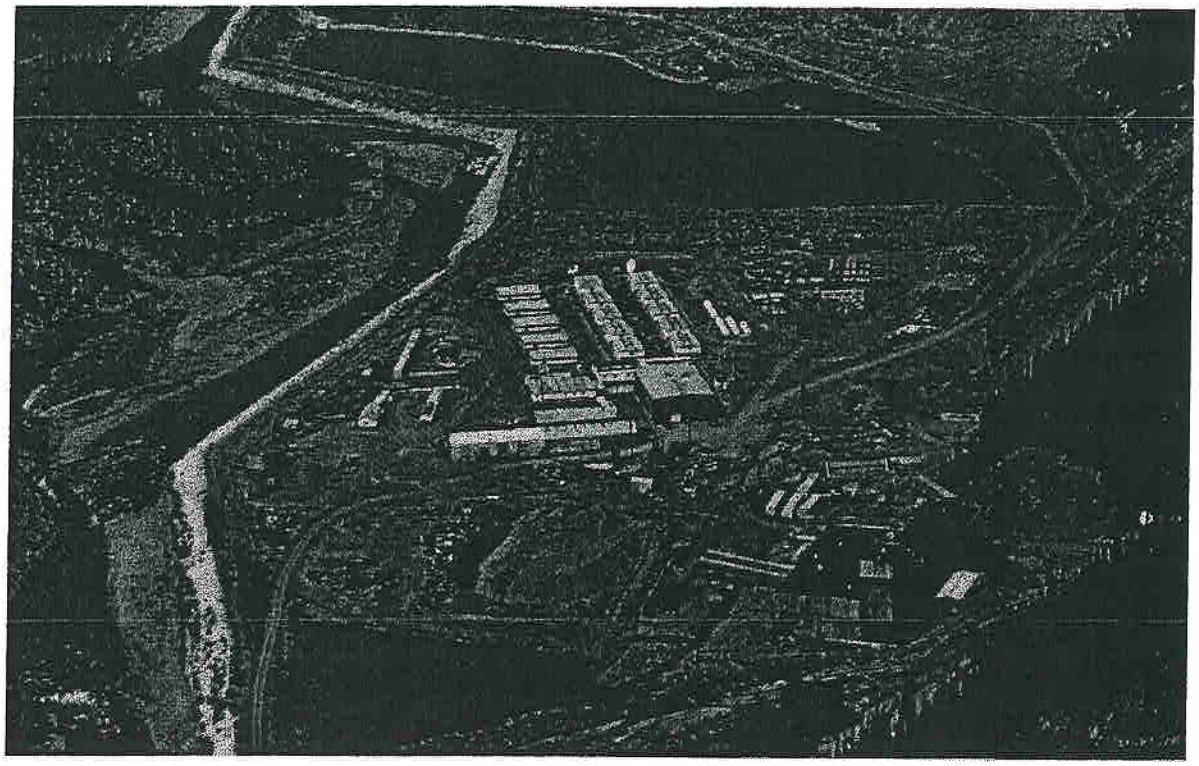
KEVIN G. O'CALLAGHAN
Barrister & Solicitor
2100 - 1075 West Georgia Street
Vancouver, B.C. V6E 3G2
Ph: (604) 631-4839

This is Exhibit A referred to in the
affidavit of Alan Taylor
made before me on this 22
day of July 20 04

A Commissioner for taking
Affidavits for British Columbia


Northwest Territories
Nunavut
Howards Pass
Centre Lake
Wrigley
Pehdzeh Ki Deh
Deh Cho
Fort Simpson
Nahanni Butte
Jean Marie River
Fort Liard
Trout Lake
Fort Providence
Kakisa
Hay River
Enterprise
Fort Resolution
Yellowknife
Dettah
East Arm
Reliance
Lutselk'e
Great Slave Lake
South Slave
British Columbia
Alberta
Fort Smith
Saskatchewan
Manitoba
Land Claim Boundaries:
Gwich'in
Inuvialuit
Sahtu
Deh Cho Revised IAA
Wekezhii Line
Interim Measures Agreement
Parks:
National Park
National Park
National Park Reserve
Proposed National Park
Other Areas:
Edacho Candidate Protected Area w/ Interim Protection
Sahyoue Candidate Protected Area w/ Interim Protection
Pehdzeh Ki Deh Candidate Protected Area
Edacho Horn Plateau Protected Area Strategy
Migratory Bird Sanctuary
Wildlife Sanctuary
"The "Pehdzeh Ki Deh Candidate Protected Area" is presented as a STUDY AREA with the permission of the Deh Cho Land Use Planning Board and is for INFORMATIONAL PURPOSES ONLY
Sahtu Settled Lands
Tlicho Settled Lands
Deh Cho Interim Withdrawal
Diamonds North Claims
Prospecting Permits
0 37.5 75 150 225 300 Kilometers
0 20 40 80 120 160 Miles
SCALE: 1 : 3 500 000
Map Created by: Evangelos (Van) Kirizopoulos
Information Management Group
Date: November 2003
Document Location: G:\arcdata\van\gary_potts
This map is for visual purposes only. The boundaries on this map may not be exactly as shown. DIAND is not responsible for any errors or discrepancies occuring on this map.
Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

The Prairie Creek Minesite: Exhibit "A"



This is Exhibit B referred to in the affidavit of Alan Taylor made before me on this 22 day of July 2004

A Commissioner for taking Affidavits for British Columbia

CANADIAN ZINC CORPORATION

June 15, 2003

This is Exhibit C referred to in the affidavit of Alan Taylor made before me on this 22 day of July 20 04

A Commissioner for taking Affidavits for British Columbia

Mr. Bob Wooley
Executive Director
Mackenzie Valley Land and Water Board
PO Box 2130, 7th Floor – 4910 50th Ave.
Yellowknife, NT
X1A 2P6

Dear Mr. Wooley:

Re: Prairie Creek Mine – Application for Type "A" Land Use Permit
Winter Access Road Development

Please find enclosed our application for a Type A Land Use Permit to authorize operation, maintenance and use of an existing winter access road alignment connecting the Prairie Creek Mine to the Liard Highway near Lindberg's Landing just east of Blackstone. Our request is for a permit with a five (5) year term with provision for a two year extension to allow repair of the all weather portion of the road between the period of August and September, and operation, maintenance and use of the winter road between the period from December 15 to March 31 of each year.

The access road was originally constructed and used under Land Use Permit N80F249 issued July 2, 1980. This permit was subsequently allowed to lapse in 1983 after some 1000 loads had been hauled into the property over the winter road in 1981 and 1982.

We have enclosed five (5) hard copies of our application package, plus an electronic version on CD. The application package includes:

- A completed application form
- Our cheque in the amount of $4275.00 payable to the Receiver General for Canada to cover the Application Fee ($150.00) and Land Use Fees ($4125.00) for the proposed use of 82.5 ha of land covered by the 165 km by 5m wide road alignment.
- A Project Description Report providing detailed information on all facets of the proposed operation.
- Drawings and plans showing the location and profile of the existing access road alignment

We have received a legal opinion that this application is exempt from environmental assessment under Part 5 of the Mackenzie Valley Resource Management Act by virtue of S.157.1 of the MVRMA as the application is for an undertaking that was the subject of a permit issued before June 22, 1984. Should the Board determine, in their opinion, that this is not the case, we would request leave to present additional submissions on this matter prior to the application being referred to the Mackenzie Valley Environmental Impact Review Board.

Suite 1202-700 West Pender Street
Vancouver, BC V6C 1G8
Tel: (604) 688-2001 Fax: (604) 688-2043
E-mail: peter@canadianzinc.com, Website: www.canadianzinc.com

We look forward to working with you and your staff on this permit application.

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

Malcolm Swallow
President & CEO

Encl.

cc: Chief Leon Konisenta – NBDB
Chief Rita Cli – LKFN
Chief Floyd Bertrand – ADKFN
Chief Tim Lennie - PKFN
Grand Chief Michael Nadli – DCFN

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Tel: (604) 688-2001 Fax: (604) 688-2043
E-mail: peter@canadianzinc.com, Website: www.canadianzinc.com

Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue
P.O. Box 2130
YELLOWKNIFE NT X1A 2P6
Phone (867) 669-0506
FAX (867) 873-6610

Application for: TYPE A

New Land Use Permit [X] **Amendment** [ ]

1. Applicant's name and mailing address: Canadian Zinc Corporation 1202 – 700 W. Pender St. Vancouver, BC, V6C 1G8	Fax number: 604-688-2043 Telephone number: 604-688-2001
2. Head office address: As above Field supervisor: To Be Determined Satellite telephone: 1-600-700-2454 Satellite fax: 1-600-700-9209	Fax number: As above Telephone number: As above

3. Other personnel (subcontractor, contractors, company staff etc.)

Road rehabilitation Km 0 – 37: 4 persons x 20 days = 80 person days
Snow road construction Km 0 – 165: 8 persons x 20 days = 160 person days
Snow road maintenance and operation Km 0 - 165: 4 x 30 days = 120 person days

TOTAL: To be determined. Est. 10 – 15 max. on site at any one time (Number of persons on site)

4. Eligibility:
(Refer to section 18 of the *Mackenzie Valley Land Use Regulations*)

a)(i) X a)(ii) a)(iii) b)(i) b)(ii)

5. a) Summary of operation (Describe purpose, nature and location of all activities.) **See Attached Project Description**

Rehabilitation, maintenance and use of an existing approximate 165 km long by 5 m wide winter road connecting the Prairie Creek Mine to the Liard Highway near Lindberg Landing to support site clean-up through removal of surplus reagents, equipment and supplies; and supply of planned advanced exploration activity.

b) Please indicate if a camp is to be set up. (Please provide details on a separate page, if necessary.)

No permanent camps required. The land use operation will be based in and serviced from the existing facilities at the Prairie Creek Mine. During operation, crews may be mobilized out of a local community, such as Nahanni Butte or Fort Simpson. During construction a temporary camp (sleeper trailer on skids) may be used.

CANADIAN ZINC CORPORATION

May 23, 2003

Executive Summary

The Prairie Creek Mine is 100% owned and operated by Canadian Zinc Corporation of Vancouver, BC. The Mine is located in the southern Mackenzie Mountains in southwestern Northwest Territories in the area claimed by the Nahanni Butte Dene Band of the Deh Cho First Nations as their traditional territory.

The Prairie Creek property has been the focus of exploration since mineralization was first discovered in the area in 1928. The existing mill and mine facilities were originally constructed by Cadillac Explorations Ltd. in 1981-82 following a period of extensive advanced exploration activity, including substantial underground development, in the 1960's and 1970's.

With the minesite facilities 90-95% complete and operations within about a month of commencing, Cadillac was forced into receivership, leaving behind an infrastructure valued at approximately $150 million, in today's dollars, including a partially developed underground mine, a 240-man camp, a 1,000 ton per day mill, a winter access road and other support facilities. Although fully permitted for operations in 1982, the mine did not achieve commercial production due to the sudden collapse in world silver prices. The operating permits and licences then in force have since been allowed to lapse.

The property lay essentially dormant until 1990, as the mine together with all the other assets were tied up in litigation. In 1991, Nanisivik Mines Ltd., a subsidiary of Conwest Exploration Co. Ltd., acquired the property out of receivership and in August of the same year, granted an option to San Andreas Resources Corporation (subsequently re-named Canadian Zinc Corporation) to purchase the property and assets. The final purchase agreement was concluded in 1993.

Since becoming involved with the property in 1991, Canadian Zinc has work diligently towards re-defining the feasibility parameters which will allow re-development of the mining operations.

Prior to the Company's involvement, approximately 120 diamond drill holes had been completed at the Prairie Creek Mine, totaling over 10,000 meters of exploration drilling, along with some 5000 meters of underground development. 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. Between 1991 and 1995 CZN completed an additional 129 diamond drill holes, totaling an additional 40,000 meters of surface diamond drilling, increasing the mineral resource to its current 11.8 million tonnes grading 10.1% lead, 12.5% zinc, 0.4% copper and 161 g/tonne silver

PROJECT DESCRIPTION REPORT

EXISTING WINTER ACCESS ROAD RE-DEVELOPMENT

PRAIRIE CREEK MINE

SUBMITTED IN SUPPORT OF:

Type "A" Land Use Permit Application

Dated May 23 2003

SUBMITTED TO:

Mackenzie Valley Land and Water Board
7th Floor, 4910 - 50th Ave.
P.O. Box 2130
Yellowknife, NT
X1A 2P6

SUBMITTED BY:

Canadian Zinc Corporation
Suite 1202 – 700 West Pender Street
Vancouver, BC, V6C 1G8

May 23, 2003

6. Summary of potential environmental and resource impacts (describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts). Use separate page if necessary.)

The proposed development involves the rehabilitation and use of an existing winter road alignment. No new road development is proposed. Snow road construction using snowfill has a low impact on the land. Any clearing and brushing required to permit access will be minimal. No adverse environmental and resource impacts are anticipated.

See attached Project Description Report for additional detail.

7. Proposed restoration plan (please use a separate page if necessary).

Ice bridges and snow fills will be removed from stream crossings prior to spring break-up each year and upon completion of the land use operation. Natural drainage channels will be re-established to prevent ponding. Erosion control measures will be installed as necessary.

8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)

Mining Leases ML 2854, ML 2931, ML 2932, ML 2933, ML 3313, ML 3314, ML 3315, ML 3338; Mineral Claims F22751, F22752, F22753, F67134, F67135, F67136, F67137; Surface Leases 95F/10-5-5, 95F/10-7-4; and, Land Use Permits MV2000C0030, MV2001C0022

Roads: Is this to be a pioneered road? No Has the route been laid out or ground truthed? Yes

Proposed winter access road will follow the same alignment as the original winter road permitted and constructed in 1980-81 under Land Use Permit N80F249 issued July 2, 1980 and used to haul up to 1000 loads into the Prairie Creek minesite during the 1981-1982 winter road seasons. The winter road alignment remains clearly visible from the air and only marginally overgrown with small invading species. No significant alteration to the existing winter access road alignment is proposed.

9. Proposed disposal methods.

a) Garbage:
Combustible refuse to be incinerated at minesite
Non-combustible refuse to be disposed of at minesite refuse site or hauled by truck to nearby community Landfills in Fort Simpson or Nahanni Butte

b) Sewage (Sanitary & Grey Water):
Exfiltration sump at minesite

c) Brush & trees:
Brush and debris from clearing the right of way will be windrowed adjacent to cleared right of way with breaks every 300m. Trees felled will be cut up so that all parts lie flat.

d) Overburden (Organic soils, waste material, etc.):
No overburden disturbance or disposal requirements anticipated with winter road construction along existing road alignment.

10. Equipment (includes drills, pumps, etc.) (Please use separate page if necessary.)

This list is not intended to be exhaustive nor definitive, but rather an indication of the types of equipment necessary to support the proposed development.

Type & number	Size	Proposed use
2 Bulldozer	Cat D8, D6	Road rehabilitation
2 Grader	Cat 14G, 14E	Road rehabilitation
2 Loader	Cat 950, Volvo BM4600	Road rehabilitation
1 Fuel Truck	5 ton	Road rehabilitation
2 Rock Truck	Volvo 5350	Road rehabilitation
2 Tractor/Trailer units	Flatbed/lowbed	Equipment/supplies transport
3 Pick Up Trucks	¾ ton	Personnel transport/support

11. Fuels	( )	Number of containers	Capacity of containers	Location
Diesel		11 3	400 – 1500 litres 1000 litres	Mobile equipment Tidy tanks: P/U Trucks
Gasoline		3	150 litres ea	Pick up trucks
Aviation fuel				
Propane				
Other				

12. Containment fuel spill contingency plans. (Please attach separate contingency plan if necessary).

An approved spill contingency plan is in place for activity in and around the Prairie Creek Mine. The Plan has submitted in support of previous applications. The Plan will be updated prior to commencement of the land use operation to include activity along the access road

13. Methods of fuel transfer (to other tanks, vehicles, etc.)

Manual or electric pump, gravity. Tidy tanks in Pickup trucks will be used to top up heavy equipment.

14. Period of operation (includes time to cover all phases of project work applied for, including restoration)

Rehabilitation of all-weather portion - Km 0 – 37 - August- September
Winter snow road construction, use and restoration – Km 0 – 165 – December 15 – March 31

15. Period of permit (up to five years, with maximum of two years of extension).
A land use permit with a term of 5 years, from August 1, 2003 to July 30, 2008, with provision for a 2 year extension is requested. This will provide annual access to the property in support of ongoing site cleanup and planned advanced exploration activity.

16. Location of activities by map co-ordinates (attached maps and sketches)

Minimum latitude (degree, minute) 61° 06' N	Maximum latitude (degree, minute) 61° 37' N
Minimum longitude (degree, minute) 122° 50' W	Maximum longitude (degree, minute) 124° 48' W

Map Sheet no. 95F/95G

17. Applicant Canadian Zinc Corporation
Print name in full Malcolm Swallow, President & CEO

Signature

Date May 23, 2003

18. Fees Type A - $150.00 ** Type B - $150.00 ** (**Application Fees are Non-Refundable**)

(165 km x 5m)
Land use fee: 82.5 hectares @ $50.00/hectare $ 4125.00
Assignment fee $50.00 $

Total application and land use fees $ 4275.00

Please make all cheques payable to "Receiver General of Canada"

A detailed Scoping Study was undertaken in 2000 and completed in early 2001 defining the parameters for an economically viable and environmentally sound mining operation.

Also in 2000 and 2001, the Company applied for and received two land use permits for further surface exploration programs. The first five holes of the Phase I program were completed during the summer of 2001.

Further application for a Land Use Permit was also made to rehabilitate the 40 km portion of the access road from the mine to "Cat Camp" in order to recover the fuel cache located there since 1981. A comprehensive environmental assessment was completed by the MVEIRB on this application resulting in a recommendation for the development to proceed as a "winter road" operation. However, prior to receiving the necessary permits to undertake this activity, the diesel was burned off under contract to DIAND in response to a clean-up order issued by Environment Canada.

Applications were also submitted in March 2001 for further advanced exploration work in the form of an underground decline and metallurgical pilot plant program defined by the Scoping Study as necessary in support of project feasibility. These applications completed the Environmental Assessment process under the Mackenzie Valley Resource Management Act in January 2002 with a recommendation being made to allow the developments to proceed, however the Report of EA was subsequently referred back to the MVEIRB for further consideration in September, 2002. This second phase of assessment was completed on April 4, 2003 and the Reasons for Decision of the MVEIRB forwarded to the Minister for approval. Once approved the applications should be returned to the MVLWB for issuance of the respective permit and licence authorizing the proposed developments to proceed.

In addition to these advanced exploration and feasibility-oriented programs, the Company has maintained an annual presence on the property undertaking an active program of site clean-up and environmental risk mitigation in conjunction with ongoing care and maintenance.

In order to continue with its site clean-up efforts, Canadian Zinc wishes to re-establish the existing winter road to provide access into the minesite. The road would be established in late December – early January and operated through to the end of March, at the latest, in each year of its use during the term of the Permit.

Road access will allow the Company to proceed with the removal of aging equipment, stockpiled reagents which have outlived their shelf life, and other equipment and supplies which are not expected to be required in future mining operations. Of particular note, this will include removal of the 40 tonnes of cyanide, which has been stored at the minesite since 1982.

As well, re-establishment of the existing winter road will facilitate final clean-up of the "Cat Camp" and "Grainger" fuel cache sites, both of which are located along the existing road alignment. Remaining clean-up entails removal of the bulk storage tanks, of which there are three at each site, each approximately 6.1 m high by 3.7 m in diameter, with a maximum nominal capacity of 64,000 litres each, as well as clean-up of any contaminated soils. Also located at the sites are several trailers, some smaller tanks, barrels, a supply of culverts and other materials belonging to Canadian Zinc.

In addition to the forgoing, re-established road access will also provide a more economical means of transporting equipment and supplies necessary in support of the planned advanced exploration activity to be carried out under the previously noted permit applications. This would include such things as the pilot plant for the metallurgical program and the two-boom air jumbo drill to develop the decline, as well as explosives and other supplies.

The need for re-establishing road access is justified based on the large volume and quantity of material requiring transport. Any single proposed project would likely not justify the road development on its own merits. However, by coordinating the above-noted activities the road access takes on a multi-purpose nature, making it more practical. The only alternative to road transport is air, which would be very difficult logistically and prohibitively expensive given the extent and nature of the materials requiring transport.

The original access road development was carried out under Land Use Permit N80F249 issued July 2, 1980 in the name of Cadillac Explorations Ltd. authorizing a 170 km winter access road connecting the minesite with the Liard Highway near Lindberg's Landing just east of Blackstone. Over each of the 1981 and 1982 winter seasons, up to 500 loads of equipment and supplies were hauled into the minesite.

The Land Use Permit was subsequently allowed to expire in 1983. As a result, the existing access road corridor between the Liard Highway and the mine site surface leases remains located on untenured land and a new Land Use Permit will be required to re-establish the road for winter use, transport materials on and off-site, and effect clean-up of the staging areas. It is this Land Use Permit application for which this Project Description Report has been prepared as a supporting document.

Construction of the original access road commenced in the summer of 1980 on the section closest to the minesite passing through the Mackenzie Mountains. While part of the original "winter" road, this portion, being through mountainous terrain, was constructed to all-weather standards using cut and fill construction techniques along side slopes. Land Use Permit N80F249 authorized all weather (i.e. all season) use of the road from the minesite to Km 37. The road up to Km 17 has been used as recently as 1995 in support of advanced exploration activity and is in good condition.

The remainder of the roadbed through the mountains from Km 17 to 37 is largely intact and passable with minor surface clean-up, however a number of washouts require more substantial repair in the form of placing fill and the possible use of small culverts on seasonal, ephemeral drainages to ensure road stability and minimize downstream impacts from erosion effects.

The majority of the remainder of the road from Km 37 to the Liard Highway at Km 162 was essentially built to winter snow road standards with minimal terrain disturbance. Cut and fills were restricted to isolated sections of steeper slopes and areas of talus slopes primarily within the Silent Hills and Grainger Pass areas. Rehabilitation over these areas will require only minimal effort to repair areas resulting from sloughing and erosion which have occurred over time. The majority of he road east of Grainger Pass followed the alignment of pre-existing seismic lines and winter road corridors.

As the road bed over this section was constructed of packed snow and ice over frozen ground, terrain disturbances were minimal. The access road alignment remains visible from the air, particularly through forested areas which were logged off and regrowth to date restricted largely to smaller invasion species.

A considerable number of environmental baseline studies were undertaken by Ker Priestman and Associates in conjunction with the original permitting effort in 1980-81. Such studies included fisheries and aquatic resources, vegetation, wildlife, surficial geology, terrain stability, soils and hydrology along the whole of the access road corridor. Additional work was undertaken by Rescan in 1995 in conjunction with re-permitting efforts at that time. These studies have been used as the basis for the discussions on impacts of the proposed development in the following sections.

A bibliography of the reports from these studies, which were filed with the regulatory agencies at the time, has been appended for reference purposes.

CANADIAN ZINC CORPORATION

May 23, 2003

Description of the development

Access to the minesite for the purposes of supporting planned advanced exploration activity and general cleanup of the minesite and fuel caches will require rehabilitation of the existing road alignment and re-establishment of winter snow road access into the site. No new road development is required and activity will be restricted to the existing road corridor as originally permitted in 1980 with no significant alteration.

The existing road was originally constructed under Land Use Permit N80F249 beginning in the summer of 1980. The road was used extensively over the period from late January to the end of March in both 1981 and 1982. Approximately 1000 loads were hauled into the minesite over these two years. Land Use Permit N80F249 was allowed to lapse in 1983.

The existing road leaves the minesite at about the 850m 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 Km 17 from where it drops down to the 830m elevation at Km 37 as the road exits the Sundog tributary valley near Cat Camp. From Km 37 to Km 70 the road remains fairly level between the 830 to 930 m elevations as it crosses the western edge of the Ram Plateau. At Km 70 the road begins to descend into the Tetcela River valley dropping from the 900 m to 250 m elevation at Km 85. The road begins to climb up again into the Silent Hills at Km 87 to the 600 m elevation by Km 92. Again the road remains fairly level within the 550 to 650 m elevations until after it passes out of Grainger Gap at Km 110 and begins to gradually descend onto the Grainger floodplain at the 250 m elevation by Km 130. The road remains very flat for the remainder of the alignment to the crossing of the Liard River and joining with the Liard Highway at the 200 m elevation at Km 160 and 162.5 respectively.

The route alignment of the existing access road between the minesite and the Liard Highway is shown on the accompanying 1:5000 scale map. A horizontal profile of the route is also supplied. It should be noted when viewing the profile that the horizontal scale is compressed relative to the vertical scale, thereby exaggerating slopes by approximately a factor of ten.

The road up to the summit at Km 17 was used as recently as 1995 under Land Use Permit N95C373 in support of exploration activity and requires only minor clean-up. The remainder of the roadbed through the mountains from Km 17 to 37 is largely intact and passable with minor surface clean-up, however a number of washouts require more substantial repair. While part of the original "winter" road, this portion, being through mountainous terrain, was constructed to all-weather standards using cut and fill construction techniques along side slopes. Land Use Permit N80F249 authorized all weather (i.e. all season) use of the road from the minesite to Km 37.

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

Road maintenance will be accomplished utilizing existing on-site equipment including a D-8 Cat, loader and backhoe. Culverts will be used for drainage control. It is proposed that work be undertaken on this section over the low flow period in August - September, and in a manner to minimize water quality impacts due to sediment loadings. As most channels at these higher elevations support flashy, runoff related discharges, flows should be minimal or non-existent at this time of year. Work done during this period will allow rehabilitation activity to be undertaken using unfrozen ground and prevent inclusion of snow in fills, which tends to de-stabilize the roadbed during snowmelt the following spring contributing to the potential for erosion and sediment loadings.

Road rehabilitation over this section is expected to take approximately 4 weeks from commencement of activity.

The majority of the remainder of the road from Km 37 to the Liard Highway at Km 162 was essentially built to winter snow road standards with minimal terrain disturbance. Cut and fills were restricted to isolated sections of steeper slopes and areas of talus slopes primarily within the Silent Hills and Grainger Pass areas. Rehabilitation over these areas will require only minimal effort to repair areas resulting from sloughing and erosion which have occurred over time. The majority of the road east of Grainger Pass followed the alignment of pre-existing seismic lines and winter road corridors.

Work will be undertaken over these sections under frozen ground conditions in order to minimize impacts to frost susceptible soils. Stream crossings will be accomplished through the use of snow fills, and an ice bridge in the case of the Liard River. Work will be undertaken using snow cats, graders and/ or bulldozers as required.

The road will be constructed and used for transport only over the period from late December – early January to March 31 each year of use during the term of the permit. The road will be stabilized prior to spring break-up in each year that it is used, with snow fills removed from stream crossings and drainage channels re-established in order to prevent ponding and erosion.

Equipment and supplies destined for the minesite will be hauled by container, flatdeck or lowbed as appropriated. Tractor units will haul trailers unassisted where practical and with assistance from heavy equipment such as a bulldozer on steeper sections as necessary. Surplus equipment and supplies to be removed from the minesite will be backhauled on the incoming units. All transportation will be undertaken in compliance with Transportation of Dangerous Goods and other applicable regulations.

Availability of the winter access road will also allow final cleanup of the Cat Camp and Grainger fuel cache sites. The skid mounted tanks will be transported by flatbed either back to the minesite or off site for use elsewhere or disposal if deemed unsuitable for continued use. As well, the trailers, barrels and excess culverts will also be relocated either to the minesite or elsewhere.

It is CZN's understanding that DIAND plans to inspect the fuel storage containment berms for contamination. With winter road access available, any contaminated soil can be relocated for treatment by bioremediation or other means. Road maintenance equipment can be utilized to excavate and stockpile contaminated soil as necessary. Following clean-up, berms can be recontoured to prevent water ponding and allowed to revegetate naturally.

An approved Spill Contingency Plan has been in place for the Prairie Creek Mine for a number of years. The Plan has been updated regularly to accommodate changes in levels of activity at the site over time. The Plan will be updated as well to include provisions for dealing with spills and other emergencies along the winter access road.

Access from the minesite for the purposes of transporting personnel to points along the winter road will be by pick-up truck. The pick-up trucks will have radio communications with the camp and each other, and will be equipped with first aid and spill kits.

A total of between 4 – 8 people are expected to be employed at any given time in carrying out different phases of the land use operation.

The employees will stay in camp at the Prairie Creek Mine site where full accommodations are available. During winter road construction, crews may be mobilized out of a local community, such as Nahanni Butte or Fort Simpson. No permanent camp will be set up along the access road alignment, however temporary accommodation in the form of skid mounted trailers may be employed during construction.

Existing minesite facilities, as have been used to support similar levels of on-site activity over the last number of years, include:

- Fully serviced bunkhouse, kitchen, office and washroom facilities
- Electricity supplied from an on-site diesel powered generator
- Potable water supplied from a well & pumphouse, located approximately 35m N of the main office and service building; the well draws water from a depth of about 50 feet in the Prairie Creek floodplain; potable well water is untreated
- Sewage disposal is by discharge to and exfiltration from an excavated and covered septic sump constructed in floodplain sands and gravels adjacent to and SW of the main office and service building; sewage disposal is hydraulically down gradient from the water well at a distance of approximately 45m
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Existing minesite facilities, as have been used to support similar levels of on-site activity over the last number of years, include:

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- Electricity supplied from an on-site diesel powered generator
- Potable water supplied from a well & pumphouse, located approximately 35m N of the main office and service building; the well draws water from a depth of about 50 feet in the Prairie Creek floodplain; potable well water is untreated
- Sewage disposal is by discharge to and exfiltration from an excavated and covered septic sump constructed in floodplain sands and gravels adjacent to and SW of the main office and service building; sewage disposal is hydraulically down gradient from the water well at a distance of approximately 45m
- Camp refuse is burned in an oil fired incinerator

A qualified person carrying a valid required First Aid Certificate will be based in camp at all times. Outside communications are via satellite phone/fax, and access is presently by air onto a privately owned 1000 metre airstrip from either Ft. Nelson or Ft. Simpson. It is anticipated that the entire program will take in the order of up to 60 days to complete.

Description of the existing environment

The Prairie Creek Mine is located in the southern Mackenzie Mountains in the southwest corner of Northwest Territories at 61° 33' north latitude and 124° 48' west longitude. The mine site facilities are situated adjacent to Prairie Creek about 48 km upstream from its confluence with the South Nahanni River and 32 km upstream of the point where Prairie Creek crosses the boundary of the Nahanni National Park Reserve.

The property is within the area claimed by the Nahanni Butte Dene Band of the Deh Cho First Nations as their traditional territory.

The nearest settled communities within the Deh Cho are:

- Nahanni Butte, NT - 90 km to the south-east
- Fort Liard, NT - 170 km to the south
- Fort Simpson, NT - 180 km to the east
- Wrigley, NT - 200 km to the north-east
- Jean Marie River, NT - 220 km to the east
- Trout Lake, NT - 230 km to the south-east
- Fort Providence, NT - 380 km to the east
- Kakisa, NT - 400 km to the east
- Enterprise, NT - 480 km to the east
- Hay River, NT - 490 km to the east

The nearest major center is Yellowknife, the capital of the NWT, 550 km to the east. Year round access to the property is by charter aircraft, generally from Fort Simpson, NWT or Fort Nelson, B.C. The mine is serviced by a 1,000 m gravel airstrip that is located adjacent to Prairie Creek approximately 1 km to the north of the mine site.

The minesite is at an elevation of 850 meters above sea level and is situated in topography characterized by low mountains and narrow valleys with an average relief of 300 meters. Short summers and long winters are typical of the area's sub-arctic climate, where the mean annual temperature is -5°C. Annual precipitation is approximately 40 cm, most of which falls as rain. The minesite is located within the Alpine Forest-Tundra section of the Boreal Forest characterized by stunted black spruce with limited undergrowth and open areas dominated by lichen.

The existing access road leaves the minesite heading north along the Prairie Creek valley for about 7 km before turning east to cross the Mackenzie Mountains. As the access road climbs out of the Prairie Creek valley it enters into the Subalpine Shrub and Alpine Tundra from about the 1000 m elevation at Km 10. The road continues to climb through the Alpine to the summit of 1530 m at Km 17, then dropping down and leaving the Subalpine again at the 1000m elevation around Km 25. As the road drops from the 1000m elevation to the 900 m elevation it passes through a spruce-lichen Alpine forest zone similar to that found at the minesite and then into a Riparian Alluvial habitat in the Sundog tributary valley bottom. As the road crosses the Ram Plateau it passes through an open forest Black Spruce/Pine Parkland setting between the 830 to 930 m, before dropping down into the Tetcela River valley where it passes through a mixed coniferous/deciduous closed forest, passes through a short distance of muskeg open shrub/sedge wetland at the headwaters of Fishtrap Creek, and climbs up into the Silent Hills again through a closed mixed coniferous/deciduous forest. The road then crosses an area of black spruce muskeg before passing through a mixed coniferous deciduous pine parkland prior to entering the Grainger River headwaters in Grainger Pass. Once through the Pass the road drops down over a closed shrub-open sedge meadow of the Grainger Tillplain and onto the Interior Plain Mosaic of the Grainger floodplain. The floodplain/tillplain mosaic is further broken down into individual habitat units: the Grainger till plain, open shrub areas, lowland marsh areas and mixed deciduous coniferous forest areas ranging from less than 30% cover to greater than 50% cover.

The Prairie Creek minesite and that portion of the existing access road from Km 0 to Km 17 are located on the west side of the Mackenzie Mountains divide. All drainage associated with activity in these areas reports to Prairie Creek, the South Nahanni River, the Liard River and then the Mackenzie River at Fort Simpson. From the summit at Km 17 eastward to just before Fishtrap Creek at Km 86 drainage is to the North. All drainage associated with activity in these areas reports either via Sundog Creek to the Ram River and then to the North Nahanni River, or via the Tetcela River directly to the North Nahanni River, and then the Mackenzie River near Camsell Bend. From about Km 86 to 91 the road crosses the headwaters of Fishtrap Creek, which drains south into the South Nahanni. From Silent Hills Pass at Km 91 to just before Grainger Pass at Km 105 drainage is again to the North to the Tetcela River. Then from Grainger Pass through the Nahanni Range to the Liard River, the road follows and is totally within the watershed of the Grainger River, a tributary of the Liard.

Detailed baseline studies describing the existing environment in the vicinity of the Prairie Creek mine and along the access road corridor were undertaken in 1980-81 as a component of previous environmental assessments conducted in support of operating permits and licences issued at that time. Additional studies were undertaken in 1994 in support of further permitting efforts. These studies, which included field assessments and descriptions of fisheries and aquatic resources, as well as wildlife populations and wildlife habitat, have been used as the basis for the discussions on impacts of the proposed development in the following sections.

May 23, 2003

Impact of the development on the environment

Air Quality and Climate

Impacts of the proposed development on air quality are expected to be negligible.

Potential sources of air contaminants will be restricted to hydrocarbon combustion products from gasoline and diesel engines in support vehicles. Routine preventive maintenance will be employed to minimize contaminants resulting from inefficient operation of such equipment. Road dust from vehicle traffic will be negligible due to road use being restricted to frozen snow and ice conditions of winter.

Terrain

Impacts of the proposed development on the environment resulting from disturbance or use of surficial geology, bedrock or soils are expected to be negligible.

The areas proposed for use in conjunction with the proposed program have been previously developed As a result, the proposed program will entail no significant alternation, new disturbance or use of surficial materials. For the most part the road bed will be prepared using snow fills at least 10 cm in thickness over frozen ground. Only where more extensive repairs are required due to washouts will granular material be required. Any such borrow materials for use in repairing the roadbed will be sourced from locally available materials immediately adjacent to the road bed.

The minor surficial terrain impacts associated with the proposed undertaking will be additional to those which have already occurred in conjunction with previous construction of the winter road alignment and development at the site. Residual impacts are expected to be minor as borrow areas represent relatively small areas and will be re-contoured and stabilized following use.

The access road corridor was flown by BGC Engineering in 1995. BGC concluded, based on their observations, that the existing road, having been in place for 15 years at that time, had caused virtually no significant terrain disturbance. Also in 1995, J.D. Mollard and Associates Ltd. conducted a remotely sensed terrain analysis of 1:20,000 stereoscopic airphotos flown in July, 1994. Mollard's conclusions included:

- Almost no evidence of landslide activity resulting from construction of the winter access road
- Almost no significant terrain effects created by construction and operation of the winter access road on or beyond the right of way
- No significant detrimental effects caused where the winter access road crossed the Ram Plateau
- Very little clearcut evidence of obvious and significant impacts in the landscape

Vegetation and Plant Communities

Impacts of the proposed winter access road development on local plant communities resulting in habitat loss or alteration are expected to be negligible.

As stated above, the areas proposed for use in conjunction with the proposed program have been previously developed and there will be no significant alteration of these areas from that previously permitted. As a result, minimal clearing will be required in order to carry out the proposed program. Borrow materials will be sourced immediately adjacent to the existing roadbed and will entail minimal disturbance of vegetation or plant communities. Impacts to local plant communities will be restricted to tree and shrub invader species which have re-populated the right of way over the last 20 years.

No rare or highly valued species have been identified from past studies of vegetation and plant communities in the area. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) does not list any plant species as endangered, threatened or of special concern in the area of the Prairie Creek Mine or the access road.

Water Quality and Quantity

Impacts of the proposed winter access road development on surface and groundwater quality and quantity are expected to be negligible.

Stream crossings on the winter road section will be accomplished using snow fills and ice bridges which will be removed prior to spring breakup. Natural drainage channels will be re-established to prevent ponding and erosion.

The re-habilitation of the existing road from the minesite to Cat Camp should serve to mitigate existing water quality impacts through stabilization of existing washouts and installation of small culverts as warranted. As was the case when the road was originally constructed, the program is proposed to be carried out during the low flow period in late summer early fall in order to minimize potential impacts to water quality. The tributary to Sundog Creek in the area of Cat Camp is in the upper end of the watershed and has been observed to dry up completely at this time in some years. Minor watercourses along the existing access road are typical of high elevation, small watershed streams exhibiting flashy flood characteristics in association with spring runoff, and then drying to little or no flow by mid-summer. During the winter, all watercourses along the access route are frozen until spring thaw usually beginning in April.

Potential impacts to water quality are limited primarily to consequential impacts associated with accidents or malfunctions resulting in a spill. These aspects are discussed further under sections entitled Accident and Malfunctions, and Alternatives.

General Water

Negligible impact on surface water quality is expected as a result of carrying out the program.

As stated above, the winter access road development as planned will result in negligible emissions or discharges to air, land or water which will then have the capability of being transported to surface waters.

Aquatic Habitat

Impacts of the proposed winter access road development on fisheries or other aquatic resources are expected to be negligible, since, as stated above, impacts to water quality and quantity are also expected to be negligible.

Initial fisheries habitat surveys were undertaken along the access corridor road crossings on April 17-18, 1980. Based on the results of the initial assessment, a total of 6 crossing locations representing all of the watercourses considered capable of supporting fish populations, were selected to be electrofished on July 23-24, 1980. Benthic invertebrate samples were also collected from these locations at the same time. Results indicated fish utilization of the Sundog Creek tributary (Arctic grayling), Tetcela river (Arctic Grayling, Lake Chub, Slimy Sculpin, Whitefish sp., Northern Pike) and Grainger River (Arctic Gray;ing, Slimy Sculpin). No fish were captured or observed in Fishtrap Creek.

In March 1981, an overwintering habitat survey was conducted on streams crossed by the winter road alignment. Streams were examined for water quality under ice conditions. It was concluded that the Grainger and Tetcela Rivers appeared to possess an overwintering potential due to the presence of flowing water under ice and the presence of a relatively high dissolved oxygen concentration. However, all small streams including tributaries of the Grainger and Tetcela Rivers and the Sundog Creek and Ram River tributaries crossed or paralleled by the winter road were completely frozen, and therefore exhibited no overwintering potential. While Fishtrap Creek supported free water under ice, it possessed very low dissolved oxygen suggesting limited overwintering potential.

In April 1981, an icebridge survey was conducted in which ground and aerial reconnaissance was made of streams crossed by the winter road which revealed conditions prior to and subsequent to break up of these aquatic systems. No barriers to fish movement were in evidence and observations indicated only minimal disturbance to aquatic habitat in terms of a temporary increase in suspended sediment loads. It was concluded that the duration of this condition was such that no sustained impact would be realized.

Fishery studies in May 1981 indicated that Arctic Grayling utilized the Grainger River, Tetcela River and Sundog Creek Tributary for spawning. Northern Pike also inhabited the Grainger River. Benthic invertebrate data at select road crossings indicated low productivity.

Fisheries investigations of stream crossings along the proposed Liard River-Prairie Creek all-seasons access road were conducted on September 15, 1994. Stream crossings in the Grainger (3 sites), Fishtrap (1 site), Tetcela (2 sites) and Sundog tributary watercourses (1 site) were electrofished (open reach; presence/absence), total removal, and/or depletion sampling (multiple pass; Zippin, 1956) with the following results:

- Sundog Creek tributary @ crossing – large bridge required if to be crossed (currently road goes around creek); large flood plain composed of large cobble/boulder substrate, subject to washouts; very clear sterile-looking water; no fish
- Tetcela River mainstem @ crossing – large bridge required; potential spawning habitat throughout; bank erosion evident; turbid water conditions; no fish
- Tetcela River second crossing – small to medium bridge required; spawning and rearing habitat evident; 3 arctic grayling, 3 lake chub and 1 longnose sucker
- Grainger River @ Grainger Pass – 2 sites: wetland and mainstem; culvert required at wetland, encroachment only at mainstem; potential spawning habitat throughout; main crossing - 5 sculpins 1 juvenile arctic grayling; wetland - no fish
- Fishtrap Creek @ proposed crossing – culvert plus fill required; mainly beaver dam habitat/wetland/swamp; no fish
- Lower Grainger River – 150 m u/s of main crossing; large culvert would probably suffice; creek 2-3 m wide; beaver impoundments every 50-100 m; some large rock and solid bottom substrates would provide a better surface for crossing than at proposed site which is wider (5-6 m) and less stable in appearance (swampy) than 100m u/s; limited spawning and rearing habitat; no fish

From a fisheries and fish habitat perspective, it was concluded from these studies that potential impacts from road crossings, even for an all seasons road, appeared to be minimal, and could be mitigated through construction timing windows, use of appropriate bank stabilization techniques and materials, and proper installation of culverts and/or bridging. Potential impacts associated with the proposed winter access road would be expected to be correspondingly less.

Wildlife and Wildlife Habitat

Impacts of the proposed development on wildlife and wildlife habitat are expected to be negligible.

The development activity will be restricted to areas previously developed, therefore limiting any new impacts to habitat. Activity will be of short duration and undertaken by limited numbers of personnel and equipment, thus limiting potential impacts to wildlife.

Perhaps the major impact commonly associated with roads is increased hunting pressure associated with opportunities for increased access. In this case, the road from the minesite to the Liard River will be operated in the winter only, therefore limiting opportunity for access. The road will not be accessible for summer/fall use.

Field studies of wildlife populations and wildlife habitat in the area of the Prairie Creek Mine and the access road were conducted in 1980-81 by Beak Consultants and again in 1994 by Rescan. The principal wildlife species observed in the area are Dall Sheep, Moose and Caribou. The studies identified no critical habitats in the area of the minesite or access road.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) lists only two species in the area of the Prairie Creek Mine. These are the Grizzly Bear (Ursus arctos) and the Wolverine (Gulo gulo), both of which are listed in the Special Concern category.

In areas removed from the minesite COSEWIC lists the Anatum Peregrin Falcon (Falco peregrinus anatum), the Woodland Caribou Boreal population (Rangifer tarandus caribou) and the Wood Bison (Bison bison athabascae) all of which are considered Threatened.

Grizzly bears have been infrequently encountered in the surrounding area of the mine and access road. No denning areas have been identified in these areas, including the area of the proposed development. Care is taken in the handling and disposal of refuse, with all kitchen and food wastes incinerated prior to disposal, in order to avoid attracting bears or other animals to the campsite. No incidents relating to problem bears in the camp have occurred in recent years as a result of these precautions.

Wolverine have been observed in the area surrounding the Prairie Creek mine and access road on only a very few rare occasions over the past 20 years. As a result, the proposed development is expected to have negligible impact on wolverine populations.

Previous wildlife studies have identified potential caribou habitat and caribou populations to be widely dispersed throughout the Mackenzie Mountains to the north and east of the minesite and in areas peripheral to the access road. Caribou calving areas were identified largely in the alpine tundra/alpine shrub communities. Calving, generally considered the most sensitive stage in caribou life history, occurs from late May to the first two weeks of June. Summer and fall are considered the least critical seasons. Beak (1982) concluded that the road itself did not appear to present any major problems to caribou.

The minesite area itself is not classified as prime caribou habitat and caribou are not generally observed in and around the minesite, therefore no impact is expected on caribou populations in this area.

Moose range is primarily restricted to the Cat Camp/Sundog tributary valley areas. The Black Spruce/Parkland vegetation unit around Cat Camp is classed as Fair moose range and the Sundog tributary Riparian Alluvial habitat is classed as Moderate winter range and Good summer range. Given the short duration and localized nature of the activity in areas previously developed, no impacts are expected on moose populations or habitat

Small populations of Dall Sheep frequent the area of the minesite and the airstrip. These groups have remained in these areas from year to year and seem generally unperturbed by routine care and maintenance and exploration activity going on around them. Lambing takes place in the April to May period. No lambing areas were identified in close proximity to the road. Given the short duration and localized nature of the activity in areas previously developed, no impacts are expected on Dall Sheep populations or habitat

Previous wildlife field studies have specifically targeted potential Peregrine falcon nesting habitat. However, none have been identified in the area of the minesite. As a result, no impacts are expected on Peregrine falcon populations. Similarly, no impacts are expected on migratory bird populations are the road follows a previously developed alignment and all activity will be carried out in the winter when migratory bird populations are at a minimum.

Wood bison populations are located 90 km or so to the south and east of the minesite in the vicinity of Nahanni Butte, and are not expected to be impacted by the proposed development.

As the road development is proposed as winter access only, potential impacts will be limited to those occurring over winter range areas.

Good winter range for Dall Sheep occurs on the west slope of the Mackenzie Mountains between the mine and the summit at Km 17 and along the Nahanni Range where the road passes through Grainger Gap At Km 109 – 111. Moderate sheep winter range habitat is found on the east slope of the Mackenzie Mountains from Km 17 to Km 30. The remainder of the road corridor passes through habitat considered to be poor or nil in terms of winter range for sheep.

Winter range for caribou occurs along the section of the road passing over the Ram Plateau from Km 30 to the Tetcela River at Km 80 and again on the east side of the Nahanni Range from Km 11 to Km 130.

Habitat classified as critical winter range for moose is restricted to the Tetcela/Fishtrap valleys at Km 80 – 90 and in the lower Granger River valley from Km 135 to the Liard River. Moderate winter range occurs on either side of the Tetcela/Fishtrap valleys and the Nahanni Range. The remainder of the road corridor is considered only fair or insignificant in terms of winter moose range.

Standard operating procedures will be employed to minimize wildlife impacts associated with road use. These will include providing egress routes to allow animals using the road as a travel corridor to exit the right of way if a vehicle is encountered, establishing policies on wildlife harassment and enforcing speed limits.

Cultural and Heritage Resources

All areas proposed for use in this application have been previously developed. As such, impacts of the proposed development on cultural and heritage resources are expected to be negligible.

An archaeological database search was conducted on August 18, 2000 through the Canadian Museum of Civilization in support of Land Use Permit Application MV2000C0030 submitted by Canadian Zinc.

The database search area encompassed the entire minesite area, as well as the entire access road corridor from the Prairie Creek mine to the Liard River. To accomplish this, the search parameters were defined by geographical coordinates to cover a block extending from 61° 00' to 61°45' N. latitude and from 122°45' to 125°00' W. longitude.

No archaeological sites were identified within the area proposed for use under this Land Use application. The closest identified sites are south of the South Nahanni River near the mouth of the Meilleur River, 35-40 km south of the minesite, and near Nahanni Butte.

As stated previously, all activity will take place in areas previously developed so that disturbance of any currently unknown archaeological sites is very unlikely.

Land and Resources Use

Impacts of the proposed development on the use of land, water and renewable resources are expected to be negligible.

All areas proposed for use in this application have been previously developed. Uses of the land or resources in this area in recent history, other than mining, have been primarily restricted to hunting. South Nahanni Outfitters hold the outfitting licence for the area around the minesite. Hunting activity generally takes place later in the fall should not be impacted by the proposed development.

The Prairie Creek mine is located 90 km from the nearest settled community of Nahanni Butte. There is no permanent road access into the property other than the existing winter road alignment which dates back to 1981. Regular access is by air only, to a private airstrip controlled by the Company. There is no other existing land occupation nor commercial land or water based activities in the vicinity of the mine. Similarly, no traditional use or trapping activity has been observed in the minesite area in recent history. As a result, no land use conflicts are anticipated in respect of the proposed development.

The Prairie Creek mine is located adjacent to Prairie Creek, 32 km upstream of the point where it crosses the boundary of the Nahanni National Park Reserve, and 48 km upstream of the point where Prairie Creek joins with the South Nahanni River.

The South Nahanni River is 540 km in length of which 300 km are contained within the Nahanni National Park Reserve. The confluence of Prairie Creek and the South Nahanni River is 65 km upstream of the point where the South Nahanni River leaves the Nahanni National Park Reserve crossing its downstream boundary. The South Nahanni River flows for 475 km prior to reaching its confluence with Prairie Creek, of which 235 km are within the Park Reserve.

The watershed of the South Nahanni River is 37,000 km^2, of which 4,766 km^2 are contained within the Nahanni National Park Reserve. By comparison, the watershed of Prairie Creek above the minesite is 495 km^2. In accordance with the relative sizes of their respective watersheds, water flow in the South Nahanni averages 75 times that of Prairie Creek and ranges from 50 to 180 times as much.

The Nahanni National Park Reserve was created in 1972, following a canoe trip down the river by Pierre Elliot Trudeau, specifically for the purpose of setting aside the South Nahanni River for wilderness recreational purposes. Exploration activity at Prairie Creek had been ongoing for many years and underground development was well advanced at this point in time.

The South Nahanni River, regularly used for canoeing trips during the summer months, represents the nearest water use downstream of the Prairie Creek mine. Wilderness river tours are supported by a number of outfitting companies from as far away as Ontario. Parks Canada reports that there were 58 such private trips on the river in 1999.

The 1987 Nahanni National Park Reserve Management Plan identifies three Boundary Candidate Areas for Potential Park Reserve Boundary Expansion. The Plan notes that these are not final boundary proposals, but areas of high value within which Parks Canada may seek boundary adjustments.

One of the areas is the "Nahanni Karst" area which overlaps with portions of the pre-existing winter road along its northern boundary, including from approximately Km 32 to Km 35 and Km 49 to Km 86. The Cat Camp fuel cache, at Km 41, is located approximately 2 km north of the northern boundary of the Nahanni Karst candidate area. These areas are outside the South Nahanni watershed within the north flowing watersheds of the Tetcela and Ram Rivers

It is not known what criteria were utilized in setting of the candidate area boundaries, however it should be noted that only subdued appearances of karst features exist in the area of the access road corridor. The most representative areas of high value in terms of karst development exist to the northeast of the candidate boundary, and the access road, in the area of the Ram Plateau where significant surface expressions occur over an approximate 400 km^2 area.

The nearest downstream community is Nahanni Butte, located at the confluence of the South Nahanni and Liard Rivers, 146 km downstream of the minesite. The population of Nahanni Butte is approximately 117 people and water for domestic purposes is supplied by well. As the proposed development is not expected to affect water quantity or quality at the minesite, it is similarly not expected to impact on water quality or quantity within the Park Reserve or on these downstream users.

In 1996, the Company and the Nahanni Butte Dene Band successfully negotiated and executed the Prairie Creek Development Cooperation Agreement. The Nahanni Butte Dene Band issued a Band Council Resolution on November 28, 1996 stating that the Band on behalf of its membership "does fully ratify and endorse the Prairie Creek Development Cooperation Agreement" in which the Nahanni Butte Dene Band proclaimed its support for the Prairie Creek mine and the establishment of an all weather access road to the mine in recognition of the significant benefits to Nahanni Butte and the DCFN communities as a whole.

More recently, the Deh Cho First Nations have put forward a proposal at the Treaty Negotiations table, pursuant to the Interim Measures Agreement, for the withdrawal of land within the South Nahanni River watershed from further mineral staking, industrial development and exploration. Existing third parties rights, such as those held at Prairie Creek, and access to them over Crown Land will continue to be honoured under the land selection process.

The Nahanni Butte Dene Band issued a Band Council Resolution on May 18, 2000 in support of protecting the South Nahanni watershed, stating that "the Nahanni National Park Reserve was created without the consent or participation of the Deh Cho First Nations" and that the "Final Agreement should provide for the recognition of Deh Cho First Nations jurisdiction over the entire Nahanni watershed, including the Park or Park Reserve."

On January 29, 2001 the Band issued a further Resolution rescinding their support for the Protected Areas Strategy for the NNPR watershed and on January 17, 2002 another reconfirming their support for the Prairie Creek Mine Project.

As the Prairie Creek Development Cooperation Agreement provides for a positive and cooperative working relationship between the Company, Nahanni and the Deh Cho First Nations in respect of developing and operating an environmentally sound operation at Prairie Creek, which will not have significant adverse environmental effects on the ecological integrity of the South Nahanni River or the Nahanni National Park Reserve, the separate goals of the local communities in achieving economic self-sufficiency and protecting the environment seem justifiably quite compatible.

Canadian Zinc continues to consult on a regular basis with the Nahanni Butte Dene Band as to opportunities for implementing the provision of the PCDCA as the Company moves forward with its plans for re-development of the property. Development of the winter access road has been a subject of such discussions and will provide an opportunity for Nahanni Butte to participate. The Nahanni Butte Dene Band have expressed their support for the current existing winter road re-development proposal (pers. comm. B. Beaton).

Economy

In the short term, the proposed development will create modest positive economic impacts for local communities in terms of employment opportunities and contracted support and supply services. CZN has employed 1-2 local residents for each of the 2000, 2001 and 2002 summer seasons. The proposed development is expected to employ between 4 to 8 persons, including a site manager, cook, mechanic, equipment operators, First Aid attendant, and labourers. Fixed wing aircraft and helicopter support will provide opportunities for charter companies in Fort Simpson and Fort Liard. Consumables will also be sourced from local suppliers and flown into site.

Project management will necessitate travel for head office and other personnel, resulting in positive economic impacts for commercial airlines servicing Yellowknife and Fort Simpson, as well as hotels and restaurants in Yellowknife, Fort Simpson and other local communities.

Noise

Impacts of the proposed development associated with ambient noise levels are expected to be negligible.

The principal source of noise associated with carrying out the program relates to the operation of the diesel engines in equipment used to rehabilitate the access road and haul the materials in and out from the minesite. Routine maintenance will be employed to ensure the engines are running efficiently.

Noise from these sources will be in addition to noise levels from the generator which supplies power to the minesite facilities which operates 24 hours per day while the camp is in operation. No residual impacts are expected relating to ambient or acute noise levels associated with the proposed development.

Visual and Aesthetic Resources

The Prairie Creek minesite is very remote and not generally visible from any location except by low flying aircraft operating in and around the Prairie Creek Valley. The proposed development will take place in areas previously developed and will therefore not create areas of new disturbance. As stated previously, the existing winter road alignment is currently clearly visible from the air. As the proposed winter road will follow the existing alignment no significant alteration to visual or aesthetic resources is anticipated.

Residual impacts will therefore remain essentially the same as those which have been in existence for the past 20 years.

Traditional Knowledge

As detailed under the "Consultation" section below, a number of public meetings and presentations have been made with representatives of Deh Cho First Nation communities and organizations over the past three years. On each of these occasions, the Company has reviewed its plans for this and other programs with the objective of providing opportunity for the communities to raise concerns with respect to impacts of the proposed development on their traditional use and activities in the area. Included in these sessions have been numerous discussions, particularly with the Nahanni Butte Dene Band, as to the means by which Deh Cho communities may maximize their involvement in opportunities afforded by the Company's plans for road development.

As well, the Company has routinely provided potentially affected communities with copies of all applications and pertinent correspondence relating to proposed activity at the site.

To date no specific concerns have been raised with respect to the potential impact of the proposed activities on traditional land use and activity. In fact, to the contrary, the Nahanni Butte Dene Band have expressed their support for the current existing winter road re-development proposal (pers. comm. B. Beaton).

In conjunction with previous permitting efforts, letters were forwarded to local First Nations communities and organizations, including the Nahanni Butte Dene Band, Lidlii Kue First Nation, Acho Dene Koe First Nation and Deh Cho First Nations on January 5, 2001, advising these groups of the Review Boards' request for integration of traditional knowledge into the Company's EA reports and requesting such information to be supplied, if available. At the time of writing, no information had been received to date. However, should any such information be forthcoming, CZN will use its best efforts to incorporate such considerations into its planning and execution of the proposed development.

Developer Identification and Performance Record

Canadian Zinc Corporation is a Canadian public company engaged in the business of mineral exploration and development. Formerly known as San Andreas Resources Corporation, the Company changed its name to Canadian Zinc Corporation on May 25, 1999. San Andreas Resources Corporation had been previously incorporated under the Companies Act of British Columbia on August 29, 1991. Canadian Zinc is listed and trades on the Toronto Stock Exchange under the symbol "CZN".

The Company maintains its head office at Suite 1202, 700 West Pender Street in Vancouver, BC. The day-to-day business of the Company is run under the drection of a five member Board of Directors as follows:

Board of Directors

Mr. John MacPherson	Chairman
Mr. John Kearney	Director
Dr. David Shaw	Director
Mr. Bob Gayton	Director, CFO
Mr. Malcolm Swallow	Director, President & CEO

The proposed development will be conducted by contractors under the supervision of a Company representative.

The Company entered into an option agreement to purchase the Prairie Creek property from Nanisivik Mines Ltd. on August 23, 1991. This agreement was superceded by the Asset Purchase Agreement of March 29, 1993 by which the Company acquired a 100% interest in the Prairie Creek property subject to a 2% net smelter royalty in favour of Titan Pacific Resources Ltd. to a maximum of $8.2 million.

Canadian Zinc has been actively involved in the NWT in exploration of the Prairie Creek property since 1991, over which time it has drilled 129 holes recovering some 40,000 metres of core in the process. Through this process the Company has successfully increased the known mineral resource on the property from the 1.8 million tonne reserve in 1991 to the present 11.8 million tonne resource. The Prairie Creek mine is the principal asset of the Company.

In 1996, the Company and the Nahanni Butte Dene Band successfully negotiated and executed the Prairie Creek Development Cooperation Agreement. Under the terms of the Agreement, Nahanni will receive a 5% equity interest of profits before taxation, but after recovery of prior capital and development costs. As well, Nahanni is granted an option to purchase either a 10% or 15% working interest in the Project for $6 or $9 million, inflation adjusted on completion of a Feasibility Study, but before construction.

All work and activity undertaken by Canadian Zinc at the Prairie Creek property has been conducted in compliance with applicable legislation and the Company has worked closely with regulatory agencies to promptly address areas of concern identified in the course of regular site inspections. The Company maintains a written environmental policy and in 2000 initiated a clean-up program aimed at mitigating environmental risks and residual impacts relating to the storage of reagents, fuel products and other materials associated with the property's long term care and maintenance status.

Tenure

CZN owns 100% of the Prairie Creek Mine and Property subject to a 2% net smelter royalty in favour of Titan Pacific Resources Limited to a maximum of $8.2 million. Upon full payment the royalty will be terminated.

The main land holding comprises eight mining leases and two surface leases. The Company also holds four additional mineral claims. Details of the Project tenements are shown in the Table below.

PRAIRIE CREEK PROPERTY

Property Type	Claim #	Lease/Claim Name	Area Ha	Area Acres
Mineral Claims				
Claim	F67134	GATE 1	731.59	1,807.75
Claim	F67135	GATE 2	1,003.30	2,479.20
Claim	F67136	GATE 3	1,003.30	2,479.20
Claim	F67137	GATE 4	1,003.30	2,479.20
Claims total			*3,741.49*	*9,245.35*

Surface Leases (held in Over holding Tenancy)				
Surface Lease	95F/10-5-3	Minesite	113.60	280.74
Surface Lease	95F/10-7-2	Airstrip	18.20	45.07
Surface Lease total			*131.80*	*325.81*
Mining Leases				
Mining Lease	ML 2854	Zone 8-12	743.00	1,835.99
Mining Lease	ML 2931	Zone 4-7	909.00	2,246.18
Mining Lease	ML 2932	Zone 3	871.00	2,152.28
Mining Lease	ML 2933	Rico West	172.00	425.02
Mining Lease	ML 3313	Samantha	420.05	1,037.96
Mining Lease	ML 3314	West Joe	195.86	483.99
Mining Lease	ML 3315	Miterk	43.70	107.98
Mining Lease	ML 3338	Rico	186.16	460.00
Mining Leases total			*3,804.35*	*9,401.02*
Grand Total			***7,677.64 Ha***	***18,972.18 Acres***

All mining leases and claims are in good standing. The surface leases are presently held in overholding tenancy to cover ongoing care and maintenance activity on the property.

The area which the Company wishes to secure for the purposes of undertaking the proposed development is the alignment of the existing winter road from the boundary of Surface Lease 95-F10-7-2 to its junction with the Liard Highway estimated at 165 km in length by 5 m in width.

Regulatory Regime

The original access road development was carried out under Land Use Permit N80F249 issued July 2, 1980 in the name of Cadillac Explorations Ltd. authorizing a 170 km winter access road connecting the minesite with the Liard Highway near Lindberg's Landing just east of Blackstone. Over each of the 1981 and 1982 winter seasons, up to 500 loads of equipment and supplies were hauled into the minesite.

The Land Use Permit was subsequently allowed to expire in 1983. As a result, the existing access road corridor between the Liard Highway and the mine site surface leases remains located on untenured land and a new Type A Land Use Permit will be required to re-establish the existing road alignment for winter use, transport materials off-site and effect the clean-up of the staging areas. It is this Land Use Permit application for which this Project Description Report has been prepared as a supporting document.

Existing tenures, acquired pursuant to the Canada Mining Regulations and the Territorial Lands Act, which grant the right to occupy the land and to explore for and extract mineral resources from the area, are in the form as described in the preceding section.

Other permits have been acquired or applied for to undertake specific programs of advanced exploration activity designed to assist in determining the feasibility of full scale mining and milling operations.

In order to proceed with full scale commercial mining and milling operations, the Company will be required to apply to the Mackenzie Valley Land and Water for a Type A Water Licence, among other necessary permits and licences,

Accidents and Malfunctions

A spill associated with an accident during road construction, maintenance or transport operations represents the only significant potential environmental impact associated with this proposed program.

The potential for spills associated with accidents or malfunctions will be mitigated through careful planning, diligent supervision and emergency preparedness in the form of spill contingency plans and equipment and supplies. As a result, the probability, risk and potential magnitude of an accident or malfunction associated with the proposed development are deemed to be low. Principal possible failure mechanisms with associated risk assessment factors are as follows:

Failure Mode	Initiating Event	Probability	Magnitude	Consequence
Diesel Spill During construction/ maintenance/ transport	Heavy equipment /truck accident Tank Rupture	Low	Small Max. 300 gals	Low Relatively small volume; Spill likely contained at source; Constant supervision; trained drivers
Diesel Spill During fuel transfer	Overfill, hose leak	Low	Small Max 250 gals.	Low Relatively small volume; Spill likely contained at source; Constant supervision; trained operators
Cyanide spill during transport	Truck accident	Low	Medium Unit 50 kg Max Load 40t	Low Cyanide in individual containers/overpaks; dry material in frozen conditions would facilitate cleanup

The Prairie Creek minesite and that portion of the existing access road from Km 0 to Km 17 are located on the west side of the Mackenzie Mountains divide. All drainage associated with activity in these areas reports to Prairie Creek, the South Nahanni River, the Liard River and then the Mackenzie River at Fort Simpson. From the summit at Km 17 eastward to just before Grainger Pass drainage is to the North. All drainage associated with activity in these areas reports either via Sundog Creek to the Ram River and then to the North Nahanni River, or via the Tetcela River directly to the North Nahanni River, and then the Mackenzie River near Camsell Bend.

From about Km 86 to 91 the road crosses the headwaters of Fishtrap Creek, which drains south into the South Nahanni. From Grainger Pass through the Nahanni Range to the Liard River, the Road follows and is totally within the watershed of the Grainger River, a tributary of the Liard.

Canadian Zinc has developed a Spill Contingency Plan for the Prairie Creek mine which has been filed with Indian and Northern Affairs Canada. The Company maintains a supply of spill clean-up materials at the site including a variety of absorbent materials and ready access to large inventory of heavy equipment, tools and supplies at the site. Spill response equipment and personnel will be located in vehicles and at key points along the haul route.

Consultation

August 14-16, 2000 Yellowknife
- Meetings with INAC, RWED, EC, DFO, MVLWB, MVEIRB, PC, DCFN

October 6, 2000
- Letter request to NBDB, LKFN, ADKFN, DCFN for meeting

November 21, 2000 Yellowknife
- Meeting with Mineral Development Advisory Group (MDAG)
- INAC, EC, DFO, GNWT/RWED, WCB, SRHB,

November 22, 2000 Nahanni Butte
- Meeting with First Nation community and association representatives
- NBDB, LKFN, DCFN, CPAWS, Parks Canada

January 5,2001
- Letter request to NBDB, LKFN, ADKFN for traditional knowledge

April 23, 2001
- Meeting with Leon Konisenta, Kevin MacLellan in Vancouver

January 15, 2002
- Meeting in Nahanni Butte, Ft. Simpson (NBDB, LKFN, DCFN)

February 13, 2002
- Presentation at Deh Cho Resource Development Conference – Ft. Simpson
- Meeting in Nahanni Butte

May 02, 2002
- Meeting with B. Beaton – Tthenaago Development Corp. in Vancouver

March 03, 2003
- Draft of Application forwarded to First Nations (NBDB, DCFN, LKFN, ADKFN, PKFN) for information and comment

March 26,2003
- Letter to FN advising of intent to submit application

April 15, 2003
- Telephone conversation with B. Beaton – Tthenaago Development Corp.

No specific concerns have been raised at any point with respect to the proposal for re-establishing the winter road. The Nahanni Butte Dene Band have expressed support for the development (Pers. Comm. - B. Beaton Apr. 15, 2003)

Alternatives

The current application foresees re-development of a winter access road along an existing alignment to allow for continued site cleanup and support for proposed advanced exploration activity. A number of alternatives have been considered. These include, in addition to the preferred alternative of using a winter road:

- flying all material in and out;
- constructing an all weather road out to the Liard Highway; and,
- postponing site cleanup & continuing to store all material at the minesite.

The relative merits of each of these alternatives are examined below.

Flying All Material In & Out

- given the large volume and weight of material required to be transported and the restricted capacity of the airstrip to accommodate larger aircraft, the logistics and costs of moving all material by air is prohibitive

Constructing an All Weather Access Road

- the level work required to construct an all weather road is considerably greater than that required to construct a winter road, including installation of culverts, placement of significant quantities of fill, use of filter fabric
- the costs of constructing an all weather road connecting the minesite to the Liard Highway have been estimated at $20 million
- the proposed scope of work does not justify construction of an all weather road

Postponing Site Clean-up & Continuing to Store Material at Site

- CZN has maintained an active presence on-site since its involvement with the property commenced in 1991; during this time the company has committed significant resources to site care and maintenance activity, including approved storage of reagents, fuels and other materials
- Regulatory and public concern have been expressed over the course of recent permitting activity with respect to long term storage of such materials, particularly the cyanide & will likely continue to be expressed regardless how well these materials are stored
- ultimately road access will be required to support either future operations or site reclamation,
- while CZN's commitment to care and maintenance will continue, road access will facilitate site cleanup by allowing for cost-effective removal of unwanted materials

Closure and Reclamation

Areas proposed for use in association with the winter road were all previously developed back in 1980-1982 in conjunction with mine construction.

The proposed re-habilitation of the existing access road will entail no significant alteration to the previously permitted development. The roadbed is already in place. Re-habilitation will consist of grading the road surface and backfilling and stabilizing washouts. All potential borrow areas are adjacent to the existing road alignment which will minimize further disturbance. Small diameter culverts will be used to control surface runoff from seasonal, ephemeral drainages as required. Following completion of the program, where the potential for further washouts is identified, culverts will be removed and runoff channels established in a manner which will minimize erosion.

The existing access road from Cat Camp to the minesite is largely constructed through mountainous terrain by cut and fill methods and therefore consists of a well established roadbed. Only close to Cat Camp does the road drop down into the valley bottom of the tributary to Sundog Creek and traverse alluvial gravels.

The majority of the alignment of the existing access road proposed for use in this operation follows the same alignment as that of the all weather road to be proposed in conjunction with plans for re-development of mining operations at Prairie Creek. As a result, the route will be required in support of future operations.

Even in the event that plans for re-establishing mining operations did not come to fruition, this access road would also be required to remove components of the infrastructure currently in place at the minesite prior to final reclamation and closure of the minesite.

Accordingly, final reclamation and abandonment of the access road is not proposed at this time. Reclamation of the road would be incorporated into the overall reclamation plan developed for the property to be completed at the termination of mining operations, or at a time when a decision not to proceed with mining operations at Prairie Creek was made. The current application is not being made in support of abandonment or decommissioning activities at the Prairie Creek mine.

Cumulative Impacts

The potential for cumulative impacts has been assessed within the context of the Interim Guide for Addressing Cumulative Environmental Effects in Environmental Assessment under the Mackenzie Valley Resource Management Act (September, 2000).

The foregoing discussion has provided an analysis of potential impacts on individual components of the environment associated with the proposed development. As the potential environmental effects of the proposed development are expected to be negligible, it would seem intuitive that the potential for cumulative effects in association with other past, existing or future developments or activities would also be negligible.

The proposed program, involving the re-habilitation of an existing road in support of ongoing clean-up of the minesite, transport of materials to and from the minesite, and the clean up of residual materials at the two fuel cache sites, does not impact on any new areas and is being undertaken to mitigate known risks. The risks associated with leaving things in their current state, or in undertaking any of the alternative programs for mitigating the current situation, are considered greater than the risks associated with undertaking the proposed program. Accordingly, the proposed program is seen as having a positive impact as opposed to a negative one.

While a considerable amount of activity and development has occurred on the property over the past 40 years, residual impacts are principally visual and aesthetic, and confined to physical disturbance directly associated with the construction development of the existing facilities. No impacts on the surrounding environment are apparent or have been identified and no cumulative impacts are predicted as a result of the proposed program.

Within the narrow spatial boundaries of the immediate minesite area and the surrounding Prairie Creek watershed, the potential for cumulative effects is considered minor. No other development or activity, other than mineral exploration and mine development at the Prairie Creek mine, has occurred in the past, been proposed, or can be reasonably foreseen in the future. The only other activity that has taken place in the area was the peripheral staking of mineral claims surrounding the pre-existing Prairie Creek claim block in May, 2000. As the Prairie Creek claim block encompasses the whole of the mineralized trend zone based on current geological interpretation, this staking is believed to be primarily speculative in nature.

Within the broader spatial context of the entire South Nahanni watershed, the potential for cumulative effects of the proposed program are also considered minor. It is expected that there will be no significant adverse effects on Prairie Creek, the South Nahanni River or the Nahanni National Park Reserve associated with the proposed development.

Within the South Nahanni watershed, the most significant development other than the Prairie Creek mine is the Cantung mine at Tungsten, NWT.

The Cantung property is about 190 km in a straight line east-northeast of the Prairie Creek mine. The minesite facilities are located adjacent to and on the floodplain of the Flat River, a major tributary of the South Nahanni River.

Cantung, an underground tungsten mine, operated over 24 years from 1962 to 1986, prior to being put on care and maintenance due to a fall in world tungsten prices. The mine recently recommenced operations in 2002. The mine is supported by a 1000 ton per day mill, a full townsite to house workers and their families, and a 200 km all weather access road connecting the mine to the Robert Campbell highway in the Yukon.

An extensive Environmental Water Quality Monitoring and Assessment Program of the South Nahanni River Basin has been undertaken by Environment Canada in association with Parks Canada since 1988. The results of this program have been reported by Environment Canada in "Protecting the Waters of Nahanni National Park Reserve, NWT" (December, 1991) and "Protecting the Aquatic Quality of Nahanni National Park Reserve, NWT" (December, 1998). Both of these reports identified no impacts on water quality within the Park Reserve or the South Nahanni River associated with the presence and operation of the Cantung mine over those 24 years, and concluded that the waters of the South Nahanni River remain pristine.

The potential for cumulative effects associated with a combination of the proposed development and the Cantung mine is therefore expected to be very low.

Results and summary of issues from public and community consultation

Issues raised concerning the proposed development during the course of public and community consultation have be restricted to enquiries pertaining to opportunities for contracting and other business opportunities relating to the winter access road development and associated activity.

The Nahanii Butte Dene Band has entered into a Development Cooperation Agreement with the Company. In response to discussions on the access road and other proposed development activities, the Nahanni Butte Dene Band have applied for and received funding from DIAND as part of a due diligence to evaluate such business opportunities.

References

Canadian Zinc Corporation – "Environmental Assessment Report Cat Camp Fuel Cache Recovery Program Prairie Creek Mine" (January 26, 2001)

Department of Indian Affairs and Northern Development – "Land Use Permit N80F249 Cadillac Explorations Ltd." (July 2, 1980)

Environment Canada - "Protecting the Waters of Nahanni National Park Reserve, NWT" (December, 1991)

Environment Canada - "Protecting the Aquatic Quality of Nahanni National Park Reserve, NWT" (December, 1998)

Mackenzie Valley Environmental Impact Review Board – "Report of Environmental Assessment on the Canadian Zinc Corporation Cat Camp Fuel Cache Retrieval and Clean-Up Development" (May 9, 2001)

CANADIAN ZINC CORPORATION

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Bibliography of supporting documents and information sources, including previous environmental assessments.

PRAIRIE CREEK MINE - ENVIRONMENTAL STUDIES
SUMMARY OF FIELD PROGRAMS

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  - **WATER QUALITY**

- **APRIL 15-18, 1980 BEAK CONSULTANTS**
  - **FISH HABITAT SURVEY; PRAIRIE, HARRISON, ROAD CROSSINGS**
  - **WILDLIFE AERIAL & GROUND RECONNAISSANCE; MINESITE**
  - **WATER QUALITY**
  - **ABA ORE, WASTE ROCK, TAILINGS**

- **JULY 6 – 10, 1980 BEAK CONSULTANTS**
  - **WILDLIFE AERIAL SURVEY; MINESITE, ROAD TO SUNDOG, NAHANNI RANGE**
  - **UNGULATES, RAPTORS, WETLANDS**
  - **BENTHIC INVERTEBRATES; PRAIRIE, HARRISON, RAM, GRAINGER, TETCELA, FISHTRAP**
  - **WATER QUALITY**
  - **SEDIMENT METALS**
  - **VEGETATION SURVEYS; MINESITE & ROAD**

- **JULY 21 – 25, 1980 BEAK CONSULTANTS**
  - **FISH HABITAT SURVEY**

- **JULY 7 – SEPTEMBER 3, 1980 GOLDER ASSOCIATES**
  - **TAILINGS IMPOUNDMENT INVESTIGATIONS**

- **JANUARY 27 – 29, 1981 BEAK CONSULTANTS**
  - **WILDLIFE AERIAL SURVEY; MINESITE WINTERING HABITAT**

- **MARCH 13-27, 1981 BEAK CONSULTANTS**
  - **WINTER FISH HABITAT SURVEY; PRAIRIE CR., ROAD CROSSINGS; OVERWINTERING POTENTIAL**
  - **WATER QUALITY**
  - **WILDLIFE AERIAL SURVEY; MINESITE & ROAD**

- **APRIL 8, 1981 BEAK CONSULTANTS**
  - **FISH HABITAT, ICE BRIDGE SURVEY**

- **MAY 21-25, 1981 BEAK CONSULTANTS**
  - **SPRING FISH HABITAT SURVEY**
  - **PRAIRIE, GRAINGER, TETCELA, SUNDOG TRIB.**
  - **ELECTROSHOCKING, GILLNETS, MINNOW TRAPS**
  - **AERIAL CROSSING RECONNAISANCE**
  - **WATER QUALITY**
  - **TISSUE METALS**
  - **BENTHIC INVERTEBRATES**

- **JUNE 9 – 10, 1981 BEAK CONSULTANTS**
  - **WILDLIFE AERIAL SURVEY; MINESITE AREA**
  - **CALVING, LAMBING, DENNING SURVEY**

- **JULY 9 – 17, 1981 BEAK CONSULTANTS**
  - **WILDLIFE AERIAL SURVEY; MINESITE & ROAD**
  - **VEGETATION SURVEY; HABITAT ASSESSMENT & MAPPING**

- **SEPTEMBER 22-26, 1981 BEAK CONSULTANTS**
  - **FISH HABITAT SURVEY; FALL SPAWNING – PRAIRIE CR.**
  - **AERIAL SURVEYS; GILLNETS; ELECTROSHOCKING**
  - **WATER QUALITY; SUBSTRATE PARTICLE SIZE**

- **MAY 30-JUNE 4, 1994 RESCAN**
  - **FISH HABITAT SURVEY**
  - **BENTHIC INVERTEBRATES; PERIPHYTON**
  - **HYDROLOGY**
  - **WATER QUALITY**
  - **ABA**

- **SEPTEMBER 12-16, 1994 RESCAN**
  - **FISH HABITAT SURVEY**
  - **WILDLIFE AERIAL SURVEY; HABITAT MAPPING; WETLANDS SURVEY; MINE & ROAD**
  - **BENTHIC INVERTEBRATES; PERIPHYTON**
  - **HYDROLOGY**
  - **WATER QUALITY**

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PRAIRIE CREEK MINE
FISHERIES STUDIES

- **APRIL 17-18, 1980 BEAK CONSULTANTS**
  - **FISH HABITAT SURVEY: PRAIRIE, HARRISON, ROAD CROSSINGS**
  - **VISUAL EXAMINATION; WATER QUALITY (pH, DO, ^{O}C)**

- **JULY 21 – 25, 1980 BEAK CONSULTANTS**
  - **PRAIRIE CREEK 5 LOCATIONS: 1-2 DOLLY VARDEN, SLIMY SCULPIN**
  - **HARRISON CREEK 1 LOCATION: SLIMY SCULPIN**
  - **ROAD CROSSINGS 6 LOCATIONS: GRAYLING, WHITEFISH, LAKE CHUBB, N. PIKE, SLIMY SCULPIN**
  - **ELECTROFISHING, GILLNETTING, HABITAT SURVEYS, TISSUE METAL ANALYSES, WATER QUALITY (pH, do, °C)**

- **MARCH 13-27, 1981 BEAK CONSULTANTS**
  - **OVERWINTERING HABITAT SURVEY**
  - **PRAIRIE, GRAINGER, GRAINGER TRIBS, FISHTRAP, TETCELA**
  - **DO, TEMP DEPTH**

- **APRIL 8, 1981 BEAK CONSULTANTS**
  - **ICEBRIDGE SURVEY WINTER ROAD CROSSINGS**

- **MAY 21-25, 1981 BEAK CONSULTANTS**
  - **SPRING SURVEY**
  - **PRAIRIE, SUNDOG TRIB, GRAINGER, TETCELA**
  - **ELECTROSHOCKING, GILLNET, MINNOW TRAPS**
  - **FISH HEALTH, AGE, TISSUE METALS**
  - **AERIAL RECONNAISSANCE**

- **SEPTEMBER 22-26, 1981 BEAK CONSULTANTS**
  - **FALL SPAWNING HABITAT SURVEY**
  - **PRAIRIE CREEK**
  - **MOUNTAIN WHITEFISH, BULL TROUT SPAWNING U/S IN HEADWATERS; NO FISH D/S**

- **MAY 30-JUNE 4, 1994 RESCAN**
  - **PRAIRIE, HARRISON, GALENA, BIG QUARTZ**
  - **ELECTROSHOCKING, GILL NETS, DIP NETS, MINNOW TRAPS**
  - **HABITAT SURVEYS**
  - **1 TISSUE METAL ANALYSES: PRAIRIE CR. (1 SCULPIN)**

- **SEPTEMBER 12-16, 1994 RESCAN**
  - **PRAIRIE, HARRISON, GALENA, BIG QUARTZ**
  - **ELECTROSHOCKING, GILL NETS, DIP NETS, MINNOW TRAPS**
  - **HABITAT SURVEYS, AGES, CONDITION FACTOR**
  - **20 TISSUE METAL ANALYSES: PRAIRIE CR. (3 SCULPIN, 3 BULL TROUT), GALENA (3 SCULPIN, 1 BULL TROUT), BIG QUARTZ (3 BULL TROUT), FAST (1 SCULPIN, 3 BULL TROUT), TETCELA (1 SUCKER, 2 LAKE CHUB)**
  - **STOMACH CONTENTS ANALYSES**

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PRAIRIE CREEK MINE
WILDLIFE STUDIES

- **APRIL 15-18, 1980 BEAK CONSULTANTS**
  - **AERIAL & GROUND RECONNAISSANCE; MINESITE, ACCESS ROAD**

- **JULY 6 – 10, 1980 BEAK CONSULTANTS**
  - **AERIAL SURVEY; MINESITE, ROAD TO SUNDOG, NAHANNI RANGE**
  - **UNGULATES, RAPTORS, WETLANDS**

- **JANUARY 27 – 29, 1981 BEAK CONSULTANTS**
  - **AERIAL CONTOUR SURVEY; MINESITE**
  - **CARIBOU, DALL SHEEP & MOOSE WINTERING HABITAT**

- **MARCH 13-27, 1981 BEAK CONSULTANTS**
  - **AERIAL SURVEY; MINESITE & ROAD**
  - **LATE WINTER UNGULATE DISTRIBUTION**
  - **39 TRANSECTS; 445 KM; LIARD R TO MACKENZIE MTNS**
  - **CONTOUR SURVEYS; NAHANNI RANGE & MINESITE**

- **JUNE 9 – 10, 1981 BEAK CONSULTANTS**
  - **AERIAL CONTOUR SURVEY; MINESITE AREA**
  - **CARIBOU CALVING, SHEEP LAMBING, GRIZZLY DENNING SURVEY**

- **JULY 9 – 17, 1981 BEAK CONSULTANTS**
  - **AERIAL SURVEY; MINESITE & ROAD**
  - **HABITAT ASSESSMENT & MAPPING**
  - **BROWSE UTILIZATION; PELLET COUNTS; INCIDENTAL OBSERVATIONS**

- **SEPTEMBER 12-16, 1994 RESCAN**
  - **AERIAL SURVEY; HABITAT MAPPING; WETLANDS SURVEY; MINE & ROAD**

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PRAIRIE CREEK MINE
BENTHIC INVERTEBRATES & PERIPHYTON STUDIES

- **JULY 6 – 10, 1980 BEAK CONSULTANTS**
  - **BENTHIC INVERTEBRATES (4 REPS EA.); PRAIRIE (4), HARRISON (1), SUNDOG (1), GRAINGER (2), TETCELA (4), FISHTRAP (1)**
  - **SURBER OR ECKMAN**
- **MAY 21-25, 1981 BEAK CONSULTANTS**
  - **BENTHIC INVERTEBRATES (8 REPS EA.): PRAIRIE CR, (7), HARRISON (1), SUNDOG (1), TETCELA (4), GRAINGER (2)**
- **MAY 30-JUNE 4, 1994 RESCAN**
  - **BENTHIC INVERTEBRATES (3 REPS EA.): PRAIRIE CR. (4 SITES)**
- **SEPTEMBER 12-16, 1994 RESCAN**
  - **BENTHIC INVERTEBRATES (3 REPS EA.): PRAIRIE CR. (3), FAST CR. (1), GALENA (1), BIG QUARTZ (1), SUNDOG (1), TETCELA (1), GRAINGER (2), FISHTRAP (1)**
  - **PERIPHYTON (1 REP EA.): PRAIRIE CR. (2), BIG QUARTZ (1), GALENA (1), FISHTRAP (1), GRAINGER (1).**

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PRAIRIE CREEK MINE
WATER QUALITY STUDIES

- **1975** — **DIAND**
  - WATER QUALITY
  - 7 STNS; 3 SAMPLINGS (MAY 27, JULY 5, AUG 6)
  - PRAIRIE U/S & D/S, HARRISON U/S & D/S, GALENA, BIG QUARTZ U/S & D/S

- **APRIL 15-18, 1980** — **BEAK CONSULTANTS**
  - WATER QUALITY
  - 3 STNS; PRAIRIE U/S & D/S, HARRISON D/S
  - MINEWATER 3050' PORTAL

- **JULY 6 – 10, 1980** — **BEAK CONSULTANTS**
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  - 3 STNS; PRAIRIE U/S & D/S, HARRISON D/S
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  - MINEWATER 2850' PORTAL

- **JULY 7 – SEPTEMBER 3, 1980** — **GOLDER ASSOCIATES**
  - GROUNDATER SAMPLES; 1 WELL, 3 BOREHOLES

- **MARCH 13-27, 1981** — **BEAK CONSULTANTS**
  - WATER QUALITY

- **MAY 21-25, 1981** — **BEAK CONSULTANTS**
  - WATER QUALITY

- **SEPTEMBER 22-26, 1981** — **BEAK CONSULTANTS**
  - WATER QUALITY; SUBSTRATE PARTICLE SIZE

- **MAY 30-JUNE 4, 1994** — **RESCAN**
  - WATER QUALITY
  - 7 STNS; PRAIRE CR. U/S & D/S, FST CR., HARRISON, GALENA, BIG QUARTZ, LITTLE QUARTZ
  - GRAINGER, TETCELA, SUNDOG TRIB., FISHTRAP

- **SEPTEMBER 12-16, 1994** — **RESCAN**
  - WATER QUALITY

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PRAIRIE CREEK MINE
VEGETATION STUDIES

- **APRIL 15-18, 1980**
  - **GROUND RECONNAISSANCE; MINESITE**
- **JULY 6 – 10, 1980**
  - **VEGETATION SURVEYS; MINESITE & ROAD**
- **JULY 9 – 17, 1981**
  - **VEGETATION SURVEY; HABITAT ASSESSMENT & MAPPING**
  - **209,000 HA STUDY AREA; MINESITE & ACCESS ROAD**
  - **11 VEGETATION MAP NITS; 41 HABITAT MAP UNITS**
  - **AIR PHOTO INTERPRETATION**
  - **GROUNDTRUTHING BY TRANSECTS & 10M X 10M PLOTS**
- **SEPTEMBER 12-16, 1994**
  - **HABITAT MAPPING; MINE & ROAD**

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PRAIRIE CREEK MINE
ARCHAEOLOGY STUDIES

- **OCTOBER, 1980**
  - **DATABASE SEARCH, NATIONAL INVENTORY OF PREHISTORIC SITES**
- **NOVEMBER, 1994**
  - **DATABASE SEARCH, PRINCE OF WALES HERITAGE CENTRE**
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  - **DATABASE SEARCH, MUSEUM OF CIVILIZATION**

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PRAIRIE CREEK MINE
TRADITIONAL USE STUDIES

- **OCTOBER, 1980**
  - **TRAPPING RETURNS REVIEWED**
  - **GUIDE/OUTFITTER RECORDS REVIEWED**
  - **RESIDENT HUNTING HARVESTS REVIEWED**
- **DECEMBER, 1996**
  - **PRAIRIE CREEK DEVELOPMENT COOPERATION AGREEMENT; NAHANNI BUTTE DENE BAND**
    - **PROVISION FOR NAHANNI TO ASSEMBLE AND PROVIDE TRADITIONAL KNOWLEDGE IN SUPPORT OF PROJECT AND ACCESS**
    - **PROVISION FOR COMPENSATION TO TRADITIONAL HARVESTERS NEGATIVELY AFFECTED BY PROJECT**

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PRAIRIE CREEK MINE
REPORTS

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  - **ACCESS ROUTES TO THE PRAIRIE CREEK PROPERTY**
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  - **PRELIMINARY ENVIRONMENTAL EVALUATION FOR MINE, MILL & CAMP**
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- **GOLDER ASSOCIATES – JUNE, 1980**
  - **PRELIMINARY APPRAISAL TAILINGS STORAGE FACILITIES**
- **GOLDER ASSOCIATES – SEPTEMBER, 1980**
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- **GOLDER ASSOCIATES – OCTOBER, 1980**
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- **KER, PRIESTMAN & ASSOCIATES LTD. – OCTOBER, 1980**
  - **ENVIRONMENTAL EVALUATION FOR CADILLAC EXPLORATIONS LTD. PRAIRIE CREEK PROJECT, N.W.T.**
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  - **PRAIRIE CREEK PROJECT: VEGETATION AND WILDLIFE STUDIES JANUARY TO JULY 1981**
- **BEAK CONSULTANTS LTD. – SEPTEMBER, 1981**
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- **BEAK CONSULTANTS LTD. – DECEMBER, 1981**
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- **KER, PRIESTMAN & ASSOCIATES LTD. – FEBRUARY, 1982**
  - **SUMMARY OF PROJECT STATUS PREPARED FOR WATER LICENCE HEARING FEBRUARY 23, 1982 - FORT SIMPSON**

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  - PROJECT DESCRIPTIONS FOR PROPOSED ALL WEATHER ROAD, AIRSTRIP & ORE HAUL ROAD
- BEAK CONSULTANTS LTD. – OCTOBER, 1982
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  - PRAIRIE CREEK EFFLUENT TREATMENT PLANT
- BRUCE GEOTECHNICAL CONSULTANTS LTD. – JULY, 1995
  - SUMMARY OF GEOTECHNICAL ASPECTS TAILINGS FACILITY AND ACCESS ROAD
- JD MOLLARD & ASSOC. LTD. – SEPTEMBER, 1995
  - REMOTELY SENSED TERRAIN ANALYSIS AND ASSESSED IMPACT OF THE EXISTING ROADWAY ALONG AND NEAR THE EXISTING WINTER HAUL ROUTE

CANADIAN ZINC CORPORATION

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ENVIRONMENTAL POLICY

It is Canadian Zinc's policy to achieve and maintain a high standard of environmental care in conducting its business as a resource company, and through its developments contribute to sustaining society's material needs. Canadian Zinc's approach to environmental management seeks continuous improvement in performance by taking account of evolving scientific knowledge and community expectations.

Specifically, it is Canadian Zinc's policy to:

- **Comply** with all applicable laws, regulations and standards; uphold the spirit of the law; and where laws do not adequately protect the environment, apply standards that minimize any adverse environmental impacts resulting from its operations, products and services;
- **Communicate** openly and in a timely manner with government on environmental issues, and contribute to the development of policies, legislation and regulations that may affect Canadian Zinc and its operations;
- **Recognize** local communities as stakeholders and engage with them in a process of open consultation and timely communication regarding environmental management issues and impacts;
- **Ensure** that its employees and suppliers of goods and services are informed about this policy and aware of their environmental responsibilities in relation to Canadian Zinc's business;
- **Develop** and implement management systems to identify, control and monitor environmental risks arising from its operations.

Original Signed By

Malcolm J. A. Swallow
President and Chief Executive Officer
October, 2000

CANADIAN ZINC CORPORATION

May 23, 2003

SPILL CONTINGENCY EQUIPMENT & SUPPLIES

Pick up trucks with spill response equipment consisting of absorbent pads, hand shovels, polaskis and fire extinguishers will be available to respond to any minor spills.

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 including a D8 Cat, front end loader and backhoe are readily available to allow for rapid response to any emergency situation.

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 Mineral Exploration Program any spill is to be responded to immediately. Basic procedures to be followed in the event of a spill include:

Basic Safety Procedures

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

Spills during fuel transfer operations

- 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 construction/maintenance/transport operations

- 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

CANADIAN ZINC CORPORATION

May 23, 2003

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, trenchs, 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

Communications:

- The Spill Contingency Plan contains contact numbers for government regulatory agencies as well a spill response suppliers and contractors
- Spills must be reported immediately and a spill report must be completed and submitted within 24 hours

CANADIAN ZINC CORPORATION

May 23, 2003

APPENDIX I

PRELIMINARY WILDLIFE HABITAT CLASSIFICATIONS

(TO ACCOMPANY HABITAT CLASSIFICATION ROAD PROFILE)

EXCERPT FROM:

PRAIRIE CREEK PROJECT:
VEGETATION AND WILDLIFE STUDIES
JANUARY TO JULY 1981

BEAK CONSULTANTS LIMITED
SEPTEMBER 1981

CANADIAN ZINC CORPORATION

March 03, 2003

Chief Leon Konisenta
Nahanni Butte Dene Band
General Delivery
Nahanni Butte, NT
X0E 0N0

Dear Chief Konisenta:

Please find enclosed a Draft Copy of a Land Use Permit Application and an accompanying Project Description Report for Canadian Zinc's proposed development of a Winter Access Road into the Prairie Creek Mine. The winter road will be used in support of our continuing efforts to clean up and maintain the Prairie Creek property by removing unneeded hazardous materials and surplus equipment, as well as in support of other planned programs for which applications have already been submitted

As you will recall, we have discussed with you and your council how Nahanni could best be involved in putting in a winter road on a number of occasions, including Nahanni's involvement in the permit application process. At this time we have prepared the application in Canadian Zinc's name, but are certainly willing to considered more direct involvement by Nahanni should you be interested in doing so.

We are forwarding this information to you for your review and comment prior to our formally submitting it to the Mackenzie Valley Land and Water Board, which we hope to do later this month. Assuming the Permit was in hand, we may be in a position to commence winter road construction in January 2004. However, given our experience to date with the permitting process in the NWT this timing would seem optimistic.

We would appreciate hearing any comments, concerns or suggestions that you may have with regard to our plans for a winter road. As well, 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

Malcolm Swallow
President & CEO

cc: Grand Chief Michael Nadlii – DCFN
Chief Rita Cli – LKFN
Chief Floyd Bertrand – ADKFN
Chief Tim Lennie – PKFN
Bill Beaton – Tthenaago Development Corp

Suite 1202-700 West Pender Street
Vancouver, BC V6C 1G8
Tel: (604) 688-2001 Fax: (604) 688-2043
E-mail: peter@canadianzinc.com, Website: www.canadianzinc.com

CANADIAN ZINC CORPORATION

March 26, 2003

Chief Leon Konisenta
Nahanni Butte Dene Band
General Delivery
Nahanni Butte, NT
X0E 0N0

By Fax: 1-867-602-2910

Dear Chief Konisenta:

On March 3, 2003 we forwarded to your attention a Draft Copy of a Land Use Permit Application and an accompanying Project Description Report for Canadian Zinc's proposed development of a Winter Access Road into the Prairie Creek Mine for your review and comment.

We are currently planning on formally submitting the application to the Mackenzie Valley Land and Water Board in the beginning of April. We will attempt to address any comments, concerns or suggestions received from you before that time in our application.

As well, we are always open to discuss with you and your council how Nahanni can best be involved in the development of the winter road and associated activities, including Nahanni's involvement in the permit application process.

As always, should you have any questions or require any additional information please feel free to contact me at your convenience.

Yours very truly,

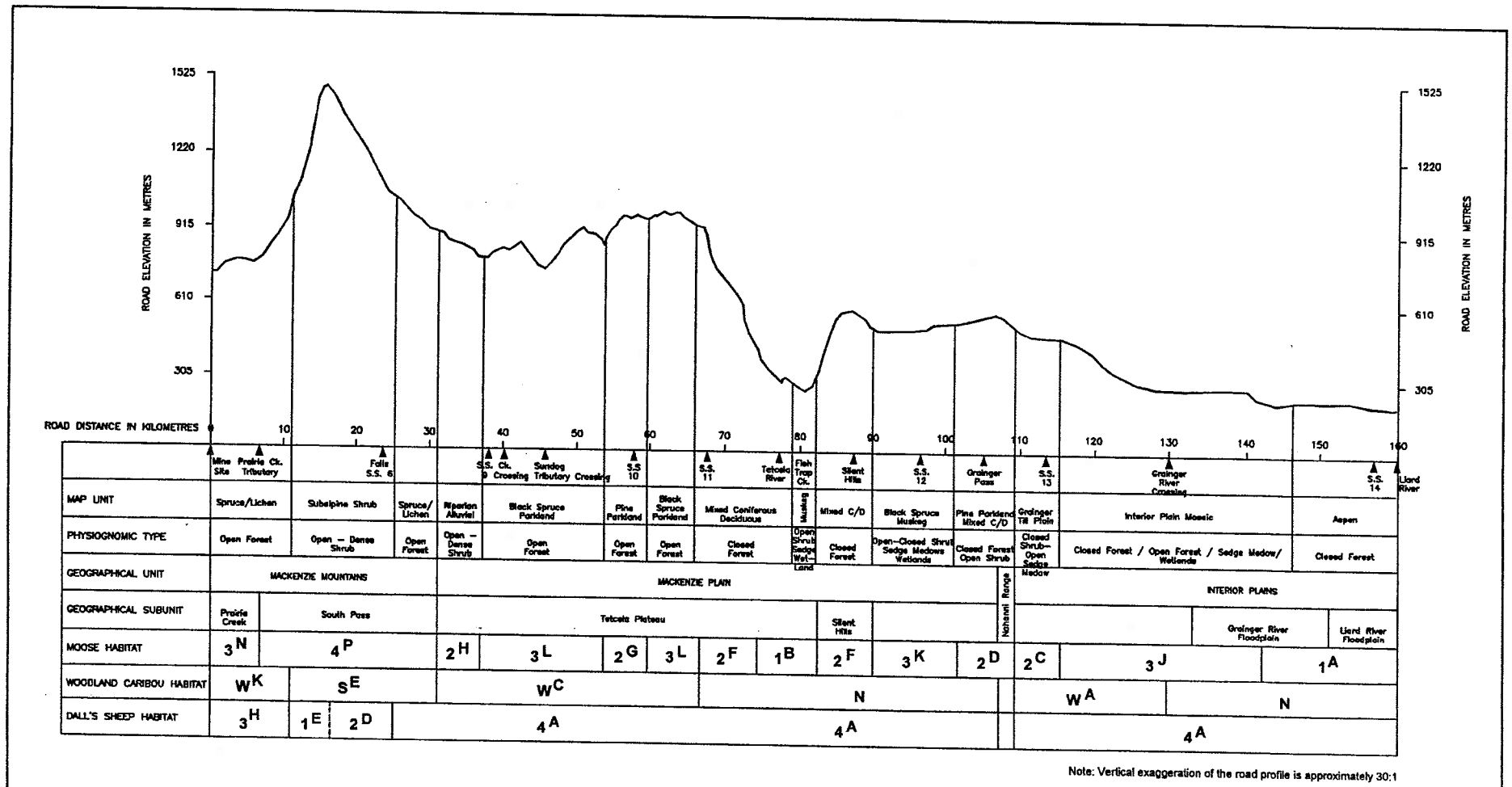
CANADIAN ZINC CORPORATION

J. Peter Campbell
Consultant

cc:
Grand Chief Michael Nadlii – DCFN	By Fax: 1-867-695-2038
Chief Rita Cli – LKFN	By Fax: 1-867-695-2665
Chief Floyd Bertrand – ADKFN	By Fax: 1-867-770-4144
Chief Tim Lennie – PKFN	By Fax: 1-867-581-3229
Bill Beaton – Tthenaago Development Corp	By Fax: 1-403-294-1167

Suite 1202-700 West Pender Street
Vancouver, BC V6C 1G8
Tel: (604) 688-2001 Fax: (604) 688-2043
E-mail: peter@canadianzinc.com, Website: www.canadianzinc.com

1 of 1



Note: Vertical exaggeration of the road profile is approximately 30:1

PRELIMINARY CLASSIFICATION OF WILDLIFE HABITATS ALONG WINTER ROAD

UNIT (refer to text) 2A — INDEFINITE BOUNDARY — CLASS

MOOSE HABITAT
CLASS
1 - Good winter range
2 - Moderate winter range - Good summer range
3 - Fair moose range
4 - Nil moose range

WOODLAND CARIBOU HABITAT
Class
W - Winter range
C&S - Potential calving and summer range
S - Summer range
N - Nil

DALL'S SHEEP HABITAT
Class
1 - Good winter range
2 - Moderate winter range
3 - Fair sheep range
4 - Nil sheep range

S.S. = Sampling site

Date:	January, 2001
Scale:	NTS
File Name:	RoadHabitatA.DWG
Revised:	
Figure:	

CANADIAN ZINC CORPORATION

PRAIRIE CREEK MINE

PROFILE OF EXISTING ACCESS ROAD

Indian and Northern Affairs Affaires indie[illegible]s et du Nord

LAND USE PERMIT / **PERMIS D'UTILISATION DES TERRES**

NORTHERN AFFAIRS PROGRAM / **PROGRAMME DES AFFAIRES DU NORD**

PERMIT CLASS - PERMIS CATÉGORIE: A

PERMIT NUMBER - PERMIS N°: N80F249

Subject to the Territorial Land use regulations and the terms and conditions in this permit, authority is hereby granted to:

Sous réserve du règlement sur l'utilisation des terres territoriales et [illegible] conditions de ce permis:

CADILLAC EXPLORATIONS LTD.

Permittee - Détenteur de permis

To proceed with the land use operation described in the application of:

Est autorisé à entreprendre les travaux d'exploitation des terres décrits dans demande de permis du:

DATE: March 4, 1980

SIGNED BY - SIGNATURE: David H. Searle

TYPE OF LAND USE OPERATION / GENRE DE TRAVAUX D'EXPLOITATION DES TERRES: Winter Access Route

LOCATION - EMPLACEMENT: Prairie Creek to Liard Highway, N.W.T.

This permit may be assigned, extended, discontinued, suspended or cancelled pursuant to the territorial land use regulations.

Ce permis peut faire l'objet d'une cession, d'une prolongation, d'une cessat[illegible] d'une suspension ou d'une annulation, en vertu du règlement sur l'utilisat[illegible] des terres territoriales.

Dated at / Date à: YELLOWKNIFE, N.W.T.

F.M. Oh

Engineer - Ingénieur

This / Ce: 2 Day of / Jour de: July, 19 80

July 2, 1980

Commencement Date - Date du début des travaux

July 1, 1981

Expiry Date - Date d'achèvement

NOTE

IT IS A CONDITION OF THIS PERMIT THAT THE PERMITTEE COMPLY WITH ANY OTHER APPLICABLE ACT, REGULATION, ORDINANCE, BY-LAW OR ORDER. DEFAULT HEREOF MAY RESULT IN SUSPENSION OR CANCELLATION OF THIS PERMIT.

REMARQUE

LE DÉTENTEUR DU PRÉSENT PERMIS DOIT SE CONFORMER À T[illegible] AUTRE RÈGLEMENT, LOI, DÉCRET, RÈGLEMENT MUNICIPAL ARRÊTÉ APPLICABLE. LE MANQUEMENT À CETTE OBLIGA[illegible] POURRAIT DONNER LIEU À LA SUSPENSION OU À L'ANNULA[illegible] DU PERMIS.

This is Exhibit D referred to in the affidavit of Alan Taylor made before me on this 22 day of July 20 04

A Commissioner for taking Affidavits for British Columbia

CONDITIONS ANNEXED TO AND FORMING PART OF LAND USE PERMIT NUMBER N80F249

31(1)(a) - Location and Area

1. The Permittee shall not conduct any part of the land use operation within 300 metres of any privately owned land or structure unless otherwise authorized in writing by the Engineer. — PRIVATE PROPERTY

2. The Permittee shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material. — REMOVE WASTE MATERIAL

3. The Permittee shall locate all lines, trails and rights-of-way to be constructed parallel to streams a minimum of 30 metres from any stream except at crossings unless otherwise authorized in writing by a Land Use Inspector. — PARALLELING STREAMS

31(1)(b) - Time

4. The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the Fort Simpson office of the Department of Indian Affairs and Northern Development, Phone Number (695-2231), at least 48 hours prior to the commencement of this land use operation. — CONTACT INSPECTOR

5. The Permittee shall not conduct any overland movement of equipment and vehicles from Mile 23.4 to the Liard Highway between March 31 and December 20, unless otherwise authorized by a Land Use Inspector in writing. — SHUT-DOWN PERIOD

6. The Permittee shall remove all ice bridges prior to spring break-up or completion of the land use operation unless otherwise approved in writing by a Land Use Inspector. — REMOVE ICE BRIDGE

7. The Engineer reserves the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe. — CLOSURE

31(1)(c) - Equipment

8. The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector. — ONLY APPROVED EQUIPMENT

9. The Permittee shall burn all combustible garbage and debris in a container acceptable to a Land Use Inspector. — INCINERATION

31(1)(e) - Type, Location, Capacity and Operation of Facilities

10. The Permittee shall ensure that the land use area is kept clean and tidy at all times. — CLEAN WORK AREA

31(1)(f) - Control or Prevention of Flooding, Erosion and Subsidence of Land

11. The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation. — NATURAL DRAINAGE

12. The Permittee shall not use any material other than water in the construction of ice bridges. — ICE BRIDGE MATERIAL

13. The Permittee shall not allow any ice bridge to hinder the flow of water in any stream. — ICE BRIDGE

14. The Permittee shall install erosion control structures as the land use operation progresses unless otherwise authorized by a Land Use Inspector. — EROSION CONTROL WHEN

15. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. — VEHICLES MOVEMENT FREEZE-UP

.....3

31(1)(g) - Use, Storage, Handling and Disposal of Chemical or Toxic Material

16. The Permittee shall burn all garbage and debris at least daily. — GARBAGE DISPOSAL

17. The Permittee shall remove all noncombustible garbage and debris from the land use area to a disposal site approved in writing by a Land Use Inspector. — REMOVE GARBAGE

18. The Permittee shall dispose of all combustible waste petroleum products by incineration or removal. — WASTE PETROLEUM DISPOSAL

19. The Permittee shall report all spills of petroleum over five hundred (500) litres within eight (8) hours of the spill to a Land Use Inspector. — REPORT PETROLEUM SPILLS

31(1)(h) - Wildlife and Fisheries Habitat

20. The Permittee shall construct and maintain all structures placed in streams frequented by fish, in such a manner that will not obstruct passage of fish. — FREE FISH MOVEMENT

31(1)(k) - Petroleum Fuel Storage

21. The Permittee shall report in writing to a Land Use Inspector the location and quantity of all petroleum fuel caches within ten (10) days after the establishment. — REPORT FUEL LOCATION

22. The Permittee shall not place any petroleum fuel storage containers within twelve (12) metres of the normal high water mark of any stream. — FUEL BY STREAM

23. The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies. — FUEL CONTAINMENT

.....4

31(1)(L) - Debris and Brush Disposal

24. The Permittee shall dispose of all debris and brush by: BRUSH DISPOSAL

(a) windrowing the debris and brush to the side of the line, and

(b) making breaks in the windrow of at least seven (7) metres wide at intervals of not less than three hundred and thirty (330) metres.

25. The Permittee shall make the windrow of brush and debris lie flat and compact by: BRUSH DISPOSAL

(a) bucking the material into suitable lengths and lopping the branches from the stem, and/or

(b) crushing with heavy machinery in order to compact the material.

26. The Permittee shall ensure that windrows are separated from standing timber. WINDROWS LOCATION

31(1)(m) - Matters Not Inconsistent with the Regulations

27. The Permittee shall not construct earth approaches abutted to the roadbed on any public highway or road, without prior written approval of the Engineer. HIGHWAY APPROACHES

28. The Permittee shall display a copy of this permit in a conspicuous place in each campsite established to carry out this land use operation. DISPLAY PERMIT

29. The Permittee shall provide in writing to the Engineer, at least forty-eight (48) hours prior to commencement of this land use operation, the following information: IDENTIFY AGENT

(a) Person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;

(b) alternates;

(c) all the indirect methods for contacting the above person(s).

30. The Permittee shall, while preparing the access road, make every effort to avoid covering or destroying traps or snares that may be found along these routes. TRAPS PROTECTION

31. The Permittee shall restore any trails used by trappers or hunters along access routes by slashing any and all trees that may fall across these paths or trails and by removing any other obstructions such as snow piles or debris that may be pushed across the trails. TRAILS RESTORATION

Special Conditions

32. The Permittee shall ensure that all activities associated with this land use operation are carried out within a fifty foot (50') right-of-way along the approved center line.

33. The Permittee shall, stake and survey the final alignment of the proposed route to the satisfaction of the Land Use Inspector.

34. The Permittee shall provide the Land Use Inspector with detailed survey plans of the proposed center line at a scale which clearly depicts its location.

35. No construction shall take place prior to the approval of the center line location by the Land Use Inspector.

36. The Permittee shall provide the Land Use Inspector with detailed plans for removal and restoration of any borrow sources.

37. The Permittee shall obtain the approval in writing of the Land Use Inspector prior to the excavation of any borrow material outside of the approved right-of-way.

38. The Permittee shall, prior to commencement of construction, provide the Engineer with proposed plans for all stream crossings and obtain his written approval.

39. The Permittee shall employ the services of a professional Geotechnical Engineer for the purpose of detailed route selection and construction supervision during the entire construction period.

40. The Permittee shall supply the Engineer with before and after colour photographs of representative sections of the road alignment as well as unique features such as rock cuts, all stream crossings, muskeg areas etc., a minimum of one set every half (1/2) mile and a descriptive paragraph with each set, making particular reference to problems encountered.

41. The Permittee shall avoid any areas which appear to support significant concentrations of large mammals.

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

P. O. Box 1500
YELLOWKNIFE, NT, X1A 2R3
Phone 920-8165, Fax 920-4669

FEED FAX THIS END

FAX
To: W. Simpson
Dept.:
Fax No.:
No. of Pages: 8
From: Desrosiers K. for Ken L.
Date: Apr. 13/95
Company: INAC
Fax No.: 920 4669
Comments: for your file

April 12, 1995

San Andreas Resources Corporation.
Suite 9500, 595 Howe Street
Vancouver, B.C. V6C 2T5

Attention: Sandy Gibson, Project Geologist.

Dear Mr. Gibson

Re: **Land Use Application N95C373**
Diamond Drilling
Prairie Creek Area, N.W.T.

Enclosed is your copy of Land Use permit number N95C373 authorizing your project to conduct Diamond Drilling in the Prairie Creek Mine site area of the NWT.

Your application has received a wide distribution to other Federal departments, departments of the Government of the N.W.T., communities in the area of your operation and concerned native groups. In distributing your application we sought comments from these various agencies based on their area of expertise that will help ensure minimum negative impact on the environment. The issuance of this permit indicates that as a result of this environmental screening process it was decided that the potentially adverse environmental effects that may be caused by your proposal are mitigable with known technology and are not significant. The terms and conditions in the permit will, in our opinion, provide the necessary protection to the environment.

Please ensure that you adhere to the operating conditions annexed to your permit.

Included are letters from Fisheries and Oceans Canada and Environment Canada. Please note their concerns and follow the conditions indicated by them.

D.M.
R.M.O. III
R.M.O. II
W.R.O.
O.M.

.../2

This is Exhibit E referred to in the affidavit of Alan Taylor made before me on this 22 day of July 2004

A Commissioner for taking Affidavits for British Columbia

Canada

Should you have any questions, regarding any conditions of this permit, please contact our Field office at Fort Simpson, phone number (403) 695-2626.

Yours truly,

Annette McRobert
A/Regional Manager
Land Administration

cc: District Manager
Fort Simpson

Leishman/kl

cc: LAC

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

LAND USE PERMIT
NORTHERN AFFAIRS PROGRAM

PERMIS D'UTILISATION DES TERRES
PROGRAMME DES AFFAIRES DU NORD

Permit Class – Permit categorie	Permit No. – N° de permis
A	N95C373

Subject to the Territorial Land Use Regulations and the terms and conditions in this permit, authority is hereby granted to:

Sous réserve du Règlement sur l'utilisation des terres territoriales et des conditions de ce permis:

SAN ANDREAS RESOURCES CORPORATION

Permittee – Détenteur de permis

To proceed with the land use operation described in the application of:

Est autorisé à entreprendre les travaux d'exploitation des terres décrits dans la demande de permis du:

Signature	Date
Alexander Gibson	March 1, 1995

Type of Land Use Operation – Genre de travaux d'exploitation des terres
Exploration Diamond Drilling

Location – Emplacement
Prarie Creek, Map Sheet 95F/10

This permit may be assigned, extended, discontinued, suspended or cancelled pursuant to the Territorial Land Use Regulations.

Ce permis peut faire l'objet d'une cession, d'une prolongation, d'une cessation, d'une suspension ou d'une annulation, en vertu du Règlement sur l'utilisation des terres territoriales.

Dated at / Date à YellowKnife, N.W.T.

Engineer / Ingénieur [signature]

This 12th Day of / jour de April ,19 95 .

Commencement Date / Date du début des travaux April 12, 1995

Expiry Date / Date d'achèvement April 11, 1997

NOTE

IT IS A CONDITION OF THIS PERMIT THAT THE PERMITTEE COMPLY WITH ANY OTHER APPLICABLE ACT, REGULATION, ORDINANCE, BY-LAW OR ORDER. DEFAULT HEREOF MAY RESULT IN SUSPENSION OR CANCELLATION OF THIS PERMIT.

REMARQUE

LE DÉTENTEUR DU PRÉSENT PERMIS DOIT SE CONFORMER À TOUT AUTRE RÈGLEMENT, LOI, DÉCRET, RÈGLEMENT MUNICIPAL OU ARRÊTÉ APPLICABLE. LE MANQUEMENT À CETTE OBLIGATION POURRAIT DONNER LIEU À LA SUSPENSION OU À L'ANNULATION DU PERMIS.

Canada

CONDITIONS ANNEXED TO AND FORMING PART OF LAND USE PERMIT NO. N95C373

31 (1) (a) - Location and Area

1.	The Permittee shall not conduct this land use operation on any lands not designated in the accepted application, unless otherwise authorized in writing by the Engineer.	PLANS

31 (1) (b) - Time

2.	The Permittee shall advise a Land Use Inspector at least 5 days prior to the completion of the land use operation when final clean-up and restoration of the lands used will be completed.	REPORTS BEFORE REMOVAL
3.	The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit.	CLEAN-UP

31 (1) (c) - Equipment

4.	The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector.	ONLY APPROVED EQUIPMENT
5.	The Permittee shall burn all combustible garbage and debris in a container acceptable to a Land Use Inspector.	INCINERATION
6.	The Permittee shall keep all garbage and debris in a covered metal container until disposed of.	GARBAGE CONTAINERS

.../2

7.	The Permittee shall, in camps of five (5) personnel or less, maintain the following fire fighting equipment in the base camp and in active readiness: (a) Two (2) back-pack bags or cans complete with hand pumps. (b) At least one of each of the following: pulaskis, axes, shovels.	FIRE FIGHTING EQUIPMENT

31 (1) (d) - Methods and Techniques

8.	The permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles prior to the movement of any vehicle that exerts pressure on the ground in excess of 35 k pa.	DETOURS & CROSSINGS
9.	The Permittee shall plug all bore holes as the land use operation progresses.	PLUG HOLES
10.	The Permittee shall replace all excavated material from the test pits and trenching prior to the expiry of this permit.	TEST PITS
11.	The Permittee shall slope the sides of excavations and embankments except in solid rock to a horizontal/vertical ratio of 2:1 unless otherwise authorized in writing by the Land Use Inspector.	EXCAVATIONS AND EMBANKMENTS

31 (1) (e) - Type, Location, Capacity and Operation of Facilities

12.	The Permittee shall maintain all drill wastes at least 1.2 metres below the lowest elevation of contiguous surrounding ground surface at all times.	SUMPS FREEBOARD
13.	The Permittee shall backfill and restore all sumps prior to the expiry date of this permit.	BACKFILL SUMPS

.../3

31 (1) (f) - Control or Prevention of Flooding, Erosion and Subsidence of Land

14.	(a) The Permittee shall, where flowing water from bore holes is encountered, plug, the bore hole in such a manner as to permanently prevent any further outflow of water.	PLUG ARTESIAN WELLS
	(b) The artesian occurrence shall be reported to the Engineer within forty-eight (48) hours.	
15.	The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation.	NATURAL DRAINAGE
16.	The Permittee shall not cut any stream bank unless authorized in writing by a Land Use Inspector.	STREAM BANKS
17.	The Permittee shall not use the bed of streams for access routes except for the purpose of crossing the streams unless otherwise authorized by a Land Use Inspector.	STREAM BEDS ACCESS
18.	The Land Use Inspector may curtail or stop repeated fordings of a stream with vehicles.	FORDING OF STREAMS
19.	The Permittee shall install erosion control structures as the land use operation progresses unless otherwise authorized by a Land Use Inspector.	EROSION CONTROL WHEN
20.	The Permittee shall apply grass seed and fertilizer to areas designated in writing by a Land Use Inspector.	REPLANT DESIGNATED AREAS

31 (1) (g) - Use, Storage, Handling and Disposal of Chemical or Toxic Material

21.	The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the Engineer.	APPROVAL OF CHEMICALS

22.	The Permittee shall deposit all sewage into a sump.	SEWAGE DISPOSAL
23.	The Permittee shall burn all garbage and debris at least daily.	GARBAGE DISPOSAL
24.	The Permittee shall dispose of all non-combustible garbage and debris by burial beneath no less than one (1) metre of compacted soil.	BURY GARBAGE
25.	The Permittee shall dispose of all combustible waste petroleum products by incineration or removal.	WASTE PETROLEUM DISPOSAL
26.	The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form N.W.T. 1086(10/79). Twenty four (24) hour spill report line (403)920-8130.	REPORT CHEMICAL AND PETROLEUM SPILLS

31 (1) (k) - Petroleum Fuel Storage

27.	The Permittee shall not place any petroleum fuel storage containers within thirty (30) metres of the normal high water mark of any stream.	FUEL BY STREAM
28.	The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.	FUEL CONTAINMENT
29.	The Permittee shall construct a dyke around each stationary fuel container or group of stationary fuel containers where any one container has a capacity exceeding 4,000 litres.	DYKE FUEL CONTAINERS
30.	The Permittee shall line the dyke and area enclosed by the dyke with a type of plastic film liner approved by the Engineer.	LINE DYKE
31.	The volume of the dyked area shall be 10% greater than the capacity of the largest fuel container placed therein.	CAPACITY

.../5

32. The Permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all times. — IMPERMEABLE DYKE

31 (1) (m) - Matters Not Inconsistent with the Regulations

33. The Permittee shall keep on hand, at all times during this Land Use Operation, a copy of the Land Use Permit. — COPY OF PERMIT

34. The Permittee shall provide in writing to the Engineer, at least forty-eight (48) hours prior to commencement of this land use operation, the following information: — IDENTIFY AGENT

(a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;

(b) alternates;

(c) all the indirect methods for contacting the above person(s).

Identify all components of the project under screening and their potential adverse environmental effects

Project Components
(✓ check all the items appropriate to this project)

- X access road
  - X construction
  - __ abandonment/removal
  - X modification e.g., widening, straightening
- __ automobile, aircraft or vessel movement
- __ blasting
- X building
- __ burning
- __ burying
- __ channelling
- X cut and fill
- X cutting of trees or removal of vegetation
- __ dams and impoundments
  - __ construction
  - __ abandonment/removal
  - __ modification
- __ ditch construction
- __ drainage alteration
- X drilling other than geoscientific
- __ ecological surveys
- __ excavation;
- __ explosive storage
- __ fuel storage
- __ garbage
  - __ disposal of hazardous waste
  - __ disposal of sewage
  - __ waste generation
- __ geoscientific sampling
  - X trenching
  - X diamond drill
  - __ borehole core sampling
  - __ bulk soil sampling
- __ gravel
- __ hydrological testing
- X site restoration
  - __ fertilization
  - __ grubbing
  - __ planting/seeding
  - __ reforestation
  - __ scarify
  - __ spraying
  - X recontouring
- __ slash and burn
- __ soil testing
- __ topsoil, overburden or soil
  - __ fill
  - __ disposal
  - X removal
  - __ storage
- X stream crossing/bridging
- __ tunnelling/underground
- __ other, explain_____

X accidents or malfunctions (Check if there is a possibility for malfunctions and accidents with this project). Describe.
Operation involves Cats, drills, and driving over mountainous terrain; accidents and malfunctions do occur.

__ effects of environment on project (e.g., beaver dams). Describe.

Project Effects
(✓ Check all the items appropriate to this project)

Biophysical Environment
1. X deposit into surface water
2. __ deposit into ground water
3. X change in surface water flow
4. __ change in ground water flow
5. __ change in water temperature
6. X change in drainage pattern

7. __ change in air quality
8. __ change in air flow
9. __ micro-climate change
10. __ ice fog

11. X change in ambient noise levels
12. X change in slope stability
13. __ change in soil structure
14. X alteration of permafrost regime
15. X destabilization/erosion
16. X soil compaction

17. __ loss of access to non-renewable resource
18. __ depletion of non-renewable resource

19. __ removal of rare/endangered plant species
20. __ introduction of species
21. __ toxin/heavy metal accumulation

22. __ removal of rare/endangered wildlife species
23. __ change in wildlife health
24. X impact to large mammals
25. X impact to small mammals
26. __ impact to fish
27. __ impact to birds
28. __ impact to other wildlife
29. __ impact in a calving, nesting or spawning area
30. __ removal of wildlife buffer zone
31. __ change in wildlife habitat/ecosystem
32. __ other, explain_____

Directly-related Socio-economic and Cultural Environment
33. __ impact to trappers
34. __ impact to hunting
35. __ impact to outfitters
36. __ recreational or back country use
37. __ impact to fishing
38. __ impact to First Nation traditional use
39. __ impact to community
40. __ impact to industry
41. __ impact to community health
42. __ change in work force economics
43. __ change in housing or infrastructure
44. __ change in regional transportation
45. __ other, explain

46. __ impact to traditional use area
47. __ impact to historical site or cultural landmark
48. X impact to local aesthetics
49. __ impact to archaeological or historical site
50. __ other, explain_____

ENVIRONMENT & CONSERVATION DIVISION
JAN 20 1995
INDIAN & NORTHERN AFFAIRS YELLOWKNIFE, NT

Identification of Other Resources Uses And Their Environmental Effects

Identify relevant past, current and future (pending applications) physical works and activities and their potential adverse environmental effects.

Other Resource Uses
(✓ check all the items appropriate to this project)

__ agriculture

__ forestry
- __ commercial
- __ domestic

__ fishing

__ hunting/subsistence

__ urbanization
- __ commercial / residential
- __ built structures
- __ infrastructure

__ mining
- __ exploration
- __ open pits
- __ underground

__ quarries

__ transportation/communications
- __ roads / trails
- __ channels / canal
- __ telephone lines, satellite dishes, cables
- __ beacons

__ solid waste disposal

__ energy project
- __ hydro
- __ pipeline
- __ transmission line

__ other water licenses, permits, leases

__ land claim lands
- __ selected
- __ withdrawn
- __ special management
  - __ heritage sites
  - __ cultural sites

__ other private lands held under tenure

__ recreational

__ trapping

__ mineral processing

__ airport

__ recreation

__ other heritage sites

X other, explain No other users of land.

Effects from other Resource Uses
(✓ check all the items appropriate to the scope of this project)

Biophysical Environment
1. __ deposit into surface water
2. __ deposit into ground water
3. __ change in surface water flow
4. __ change in ground water flow
5. __ change in water temperature
6. __ change in drainage pattern

7. __ change in air quality
8. __ change in air flow
9. __ micro-climate change
10. __ ice fog

11. __ change in ambient noise levels
12. __ change in slope stability
13. __ change in soil structure
14. __ alteration of permafrost regime
15. __ destabilization/erosion
16. __ soil compaction

17. __ loss of access to non-renewable resource
18. __ depletion of non-renewable resource

19. __ removal of rare/endangered plant species
20. __ introduction of species
21. __ toxin/heavy metal accumulation

22. __ removal of rare/endangered wildlife species
23. __ change in wildlife health
24. __ impact to large mammals
25. __ impact to small mammals
26. __ impact to fish
27. __ impact to birds
28. __ impact to other wildlife
29. __ impact to a calving, nesting or spawning area
30. __ removal of wildlife buffer zone
31. __ change in wildlife habitat/ecosystem
32. __ other, explain _____

Directly-related Socio-economic and Cultural Environment
33. __ impact to trappers
34. __ impact to hunting
35. __ impact to outfitters
36. __ recreational or back country use
37. __ impact to fishing
38. __ impact to First Nation traditional use
39. __ impact to community
40. __ impact to industry
41. __ impact to community health
42. __ change in work force or community economics
43. __ change in housing or infrastructure
44. __ change in regional transportation.
45. __ other, explain _____

46. __ impact to traditional use area
47. __ impact to historical site or cultural landmark
48. __ impact to local aesthetics
49. __ impact to archaeological or historical site
50. __ other, explain No other users of land.

Describe biophysical and socio-economic and cultural environmental effects identified from checklist.

Environmental Effect	Describe
1	Residue from equipment crossing streams and sediment deposited as a result of crossing. This is minimized by careful observance and few crossings.
3,6	Surface disturbance causes changes to drainages, restoration measure can correct these minor changes.
11	Temporary equipment noises can frighten wildlife and cause them to move closer (e.g. sheep chased by wolves) or further away.
12	Side hill cuts can create slope instability but can be corrected with proper restoration & recontouring.
14	Clearing of overburden, moss cover can create frost degradation. Granular fill can rectify these problems.
15, 16	Compaction of soil can create erosion and destabilization of ground surface. This can be corrected by proper erosion controls.
24,25	Travelling, construction of access & drilling activities will frighten animals of all kinds when they are not used to it. Some animals adapt while others move away for the duration.
48	Access roads all over mountainous terrain leaves scars that will remain forever above timberline. In timberline, some growth may hide some of the signs, however mining creates these situations and until permanent reclamation occurs, these signs will persist.

9.

Cumulative Environmental Effects

Based on a comparison of effects identified in #7 and #8

Matching Number(s)	Description of cumulative environmental effects
	N/A

10. **Mitigation Measures**

For each environmental effect identified in #7 and #8, describe the required mitigation measure(s)

Number(s) (as identified in #7 & #8)	Description of Mitigation Measure(s)
	N/A

11. Significance

After taking into account the above mitigation measures, are any of the adverse environmental effects significant?

___ Yes ___No If yes, identify which one(s) and proceed to 12; if no, proceed to #13

Number(s) _____ _____

_____ _____

12. Likelihood of Occurrence

Of the identified adverse significant environmental effects in #11 which are likely to occur?

___ Yes ___No

Number(s) _____ _____

_____ _____

13. CEAA Determination Recommendation

XX Section 20 (1)(a) - Project may proceed as it is not likely to cause significant adverse environmental effects.

___ Section 20 (1)(b) - Project may not proceed as it is likely to cause significant adverse environmental effects that cannot be justified.

___ Section 20 (1)(c)(i) - Project must be referred to the Minister of Environment as it is uncertain whether the project is likely to cause significant adverse environmental effects.

___ Section 20 (1)(c)(ii) - Project must be referred to the Minister of Environment as it is likely to cause significant adverse environmental effects.

___ Section 20 (1)(c)(iii) - Project must be referred to the Minister of Environment as public concerns warrant the reference.

14. **Screening Report and/or Decision Report**

Public Notice of availability of Screening Report	___Yes	___No
Public Notice of availability of Decision Report	___Yes	___No
	___No Decision Report	
Decision Report sent out Yes No	To whom (attach list).	
Public Comments Received on Screening Report	___Yes	___No
Public Comments Received on Decision Report	___Yes	___No
Record of comments attached to screening form	___Yes	___No

15. **Authorization**

Amendment circulated to LAC members and Fort Simpson District Distribution List.

Prepared By: B.J.J. Lambert Date: June 07, 1996
Screener

Approved By: Date:
Decision Maker (e.g., Regional Manager, engineer, etc.)

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

APPLICATION FOR LAND USE PERMIT
DEMANDE DE PERMIS D'UTILISATION DES TERRES

Office use only - Réserve pour usage interne seulement

Application fee - Droits de demande de permis	Land use fee - Droits d'utilisation des terres	General receipt no. - N° de reçu	Date	Class - Category	Permit no. - N° de permis
20.00		C-90691	MAR. 6/95	A	MV95C373

To be completed by all applicants - A remplir par tous les requérants ☒ New application / Nouvelle demande ☐ Amendment / Modification

1. Applicant's name and mailing address (Full name, no initials) - Nom et adresse du ou des requérant (s) (Nom au complet, pas d'initiales)

Alexander (Sandy) Gibson
San Andreas Resources Corporation
Suite 900 - 595 Howe St.
Vancouver BC V6C 2T5

Fax no. - N° de télécopieur: (604) 688-2043
Telephone no. - N° de téléphone: (604) 688-2001

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
MAR 06 1995
YELLOWKNIFE, N.W.T.
LAND ADMINISTRATION

2. Head office address - Adresse du siège social

As above

Fax no. - N° de télécopieur:
Telephone no. - N° de téléphone:

Field supervisor - Chef de chantier	Radio telephone - Téléphone-radio	Telephone no. - N° de téléphone
Project Geologist Alexander (Sandy) Gibson	Project Manager Colin McAleenan	(604) 774-3667	(604) 688-2043

3. Other personnel (Subcontractor, contractors, company staff, etc.) - Autre personnel (Sous-traitants, entrepreneurs, personnel de société, etc.)

Drillers, driller's helpers, 2 geologists, 2 cat operators, 1 mechanic, 1 cook, 1 cook's help
TOTAL: 20 2-4 labourers, 1 contractor/expediter
Around 3000 person days.

4. Qualifications - Titres
refer to Section 21 - Territorial Land Use Regulations
consultez l'article 21 - du Règlement sur l'utilisation des terres territoriales

No (s) exploration permit mineral claims - if applicable
N°(s) des permis d'exploration minière, s'il y a lieu

a(i) ☑ a(ii) ☐ a(iii) ☐ b ☐ c ☐

5. a) Summary of operation (Describe purpose, nature and location of all activities - refer to Section 22 (2) (b) - Territorial Land Use Regulations). (Use last page of form if additional room is required).
Résumé des opérations (exposez le but, la nature ainsi que l'emplacement de toutes les activités - consultez l'article 22 (2) b) - du Règlement sur l'utilisation des terres territoriales). Utilisez la dernière page du formulaire si vous avez besoin d'espace supplémentaire).

Operations will primarily focus on exploration diamond drilling. The purpose of the drilling is to increase ore reserves and discover new deposits. This will primarily involve road construction and drill pad construction and drilling north-east of the mine site (Zone 3) and in the pass area on the winter road, referred to a the Zebra Area: see Maps A, B, C.

b) Please indicate if a camp is to be set up (Use last page to provide details).
Indiquez si un camp doit être aménagé (Utilisez la dernière page pour donner des détails).

No new camp set-up required. Existing mine-site facilities will be used.

6. Summary of potential environmental and resource impacts (Describe the effects of the proposed program on land, water, flora & fauna and related socio-economic areas (Use separate pages if necessary)
Résumé des conséquences possibles sur l'environnement et les ressources (décrire les effets du programme proposé sur les terres, l'eau, la flore et la faune et les domaines socio-économiques connexes (Utilisez des pages supplémentaires au besoin)

Road building in order to access drill pads and drill pad construction would have impacts on the land: trees would be pushed over and road cuts made into hillsides. Truck traffic of the drill crews, geologist, mechanic coming and going to and from the drill to camp may encounter wild life. Noise from the drill may effect wildlife, but in the past Dall Sheep have not been bothered, coming around the drill occasionally. Water quality should not be affected by drilling activities as sumps will contain cuttings and contain any possible fuel spills at the drills.

Canada

7. Proposed restoration plans (please use last page if required) - Plans proposés de remise en état des terres (au besoin, utilisez la dernière page)

Once drilling is completed on an area, cut banks are re-established with a back-hoe. Any trees pushed over will be cut up into 1.5m long pieces. Any piles of dirt will be back bladed onto the area they were bu up from.

8. Other rights, licences or permits related to this permit application (mineral claims, timber permits, water licences, etc.) - Autres droits, autorisations ou permis associés à cette demande de permis (claims miniers, permis de coupe, permis d'exploitation hydraulique, etc.)

Mineral claims that comprise the property.
Surface leases of minesite area
Mining Leases.

For new drill pads (see maps A, B)

Roads: Routed:
[Y] Is this to be a planned road? Please provide details on back page - La route doit-elle être aménagée ? Donnez les détails sur la dernière page
[Y] Has the route been laid out or ground truthed? La trace a-t-il été établi et le terrain nivelé ?
[N] Has funding been applied for i.e. RTAP? Avez-vous demandé du financement ?

9. Proposed disposal methods - Méthodes d'élimination proposées

a) Garbage: Ordures: Burned in the incinerator
b) Sewage (Sanitary & Grey Water): Eaux usées (Eaux d'égout et eaux ménagères) Present system: Sump.
c) Brush & trees: Broussailles et arbres: Bucked up to 1.5m lengths.
d) Overburden (Organic soils, waste material, etc.): Terrain de recouvrement : (Dépôts organiques, déchets, etc.) Back-bladed re-contoured.

10. Equipment (Includes drills, pumps, etc.) (Please use last page if required) - Matériel (comprend foreuses, pompes, etc.) (Utilisez la dernière page au besoin)

Type & Number - Type et nombre	Size - Dimension	Proposed use - Utilisation proposée
2 Longyear 38 drills	22'x12'x25' tall.	Diamond drilling
1 Longyear 44 drill	22'x12'x25' tall	Diamond drilling.
2 Caterpillar D-8 bulldozers	D-8	Road building, drill moves
1 Caterpillar D-6 bulldozer	D-6	Road building, drill moves
6 Diesel water-supply pumps	Beau pumps ~60 gal/min	Pump water to the drills for drilling

11. Fuels - Combustibles	(Y)	Number of containers - Nombre de réservoirs	Capacity of containers - Capacité des réservoirs
- Diesel	✓	4 existing large tanks	3.8 million litres. Use full no
- Gasoline - Essence	✓	32 45 gal drums	45 gal drums. Burned
- Aviation Fuel - Carburant aviation			
- Propane	✓	10	6 20lb tanks 4 100 lb tanks.
- Other			

12. Containment fuel spill contingency plans (Please attach separate contingency plan if necessary) (Also see attached fuel spill contingency plan.
Plans d'urgence d'isolement de carburant en cas de déversement (veuillez joindre un plan d'urgence distinct au besoin)

The minesite was designed with emergency fuel spill containment ponds drained by culverts with covers. Covers would be closed to contain the spill and booms and sweepers used to skim off the fuel, which would be collected into 45 gal barrels. Sumps are constructed at the drill pads which would also contain a spill if one occured at the drill. If a spill occured between the minesite and the drill the spill would be contained with hand dug berms, with potential help of the D-6

13. Methods of fuel transfer (To other tanks, vehicles, etc.) - Méthodes de transfert des combustibles (vers d'autres réservoirs, véhicules, etc.)

Fuel truck: 4,000 gal tank mounted on truck. Used only at minesite for camp main tanks. Pump on truck transfers to tanks.
Tidy tank 130 gal tank mounted on back of pick-up truck, pumped from storage into tidy tank. Hand pump on tidy tank pumps to drill fuel tank.
Drill tank 300 gal tank mounted on steel frame + skids. Filled to drill by D-6 Hand pump on tank pumps to the drills' fuel tank; capacity 30 gal.

14. Period of operation (includes time to cover all phases of project work applied for, including restoration)
Période d'opération (comprend toute période du début à la fin des projets, y compris la remise en état)

May 1995 through to May 1997 : Drilling and exploration activity such as geological mapping, rock sampling. Geotechnical engineering studies on the tailings pond, environmental studies at and around the minesite. Possible production decision before the end of the permit duration

15. Period of permit (up to two years, with maximum of one year extension)
Période du permis (valide pour une durée de deux ans et prolongation maximale d'un an)

Start date - Date du début du projet D M Yr	Completion date - Date d'achèvement D M Y
01 05 95	01 05 97

16. Location of activities by map co-ordinates (attached maps and sketches)
Emplacement des activités selon les coordonnées géographiques (cartes et esquisses ci-jointes)

MN Lat Deg 61°	MN Lat Min 33'	MAX Lat Deg 61°	MAX Lat Min 38'
MN Long Deg 124°	MN Long Min 38'	MAX Long Deg 124°	MAX Long Min 48'

Map Sheet No.
N° de feuille de carte ▶ 95F/10

17. Applicant - Requérant
Print name in full - Écrire votre nom au complet en lettres moulées ▶ Alexander Gibson — Signature: AM Gibson — Date: March 1 1995

18. Fees - Droits ☑ Class Catégorie A $ 20.00 ☐ Class Catégorie B $ 10.00

(21 km of rd) x (4m width)
Land use fees:
Droits d'utilisation des terres ▶ 8.4 hectares @ $ 20.00 = $ 168 - 40 (2 Hectares free)

hectares @ $ 12.00 = $
(Above 63 N - au-dessus de 63)

Total application and land use fees
Total des droits de demande de permis et d'utilisation des terres ▶ $ 128

Office use only - Réservé pour usage interne seulement

19. Calculation of area involved (includes access, staging areas, airstrips, campsites, etc.)
Calcul des aires en cause (comprend l'accès, les aires de transit, les pistes d'atterrissage, les camps, etc.)

Total area (Ha) Superficie totale	Less 2 hectares Moins 2 hectares (– 2)	TOTAL (For fee calculation) (aux fins du calcul des droits)

20. Application checklist - Vérification de la demande

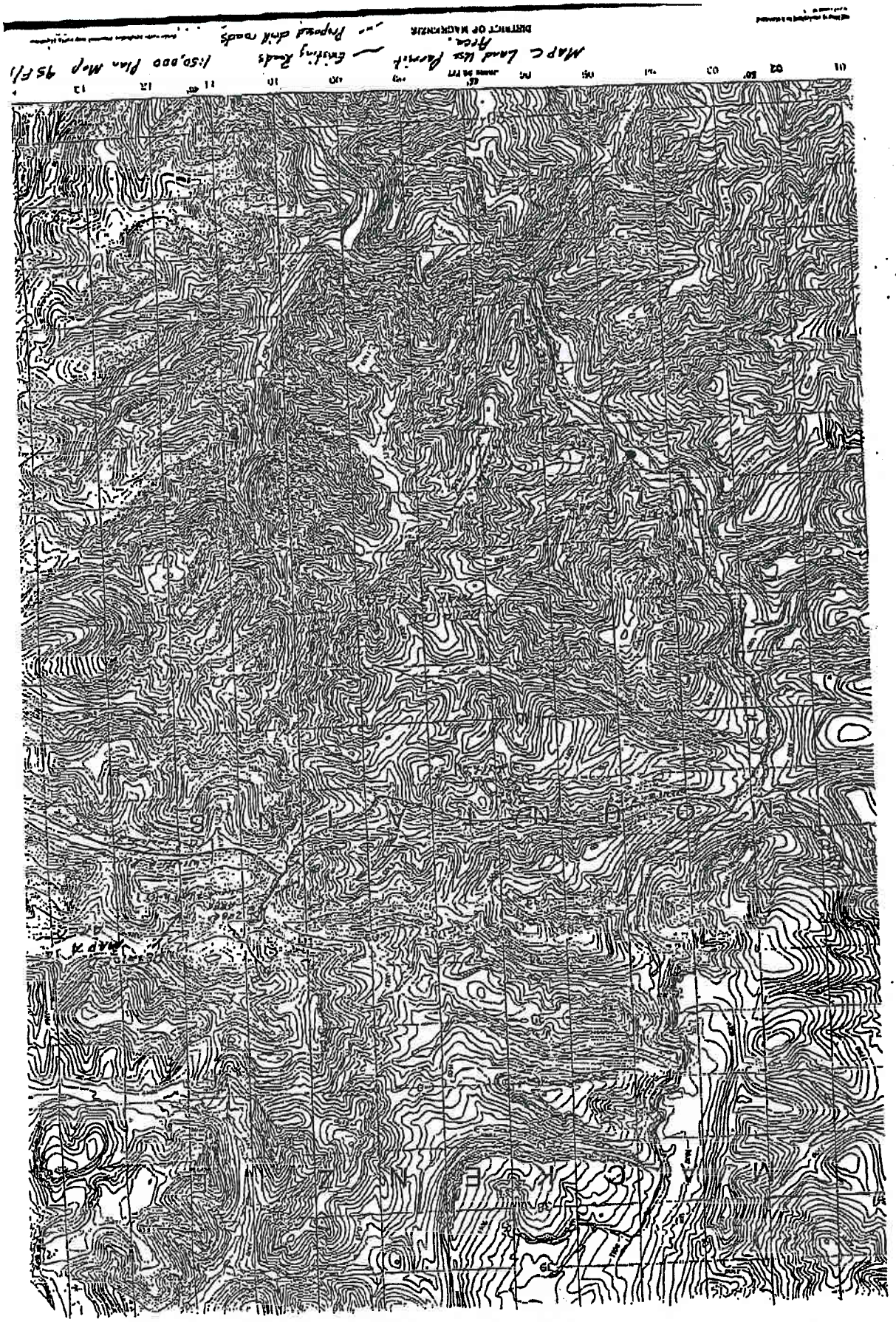
a) ☑ Application signed and dated Demande signée et datée		f) ☐ Timber permit applied for Permis de coupe du bois demandé	
b) ☐ Fees attached Droits ci-joints		g) ☐ Fees attached Droits ci-joints	
c) ☑ Map included Carte incluse		h) ☐ Lease applied for Bail demandé	
d) ☑ Address and telephone number Adresse et numéro de téléphone			
e) ☐ Screening report Rapport d'examen			

Accepted by - Acceptée par ▶ [signature] Date ▶ March 6/95

Remarks - Remarques

52-409 A (9-93) 7530-21-056-2872

Please use reverse page if additional space is required
Utiliser la dernière page si vous avez besoin d'espace supplémentaire


Map C Land Use Permit Area
Existing Roads
Proposed dirt roads
1:50,000 Plan Map 95 F/1
DISTRICT OF MACKENZIE

This is Exhibit ..... referred to in the
affidavit of ..... Alan Taylor .....
made before me on this ..... 22 .....
day of ..... July ..... 2004 .....
.....
A Commissioner for taking
Affidavits for British Columbia

Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue
P.O. Box 2130
YELLOWKNIFE NT X1A 2P6
Phone (867) 669-0506
FAX (867) 873-6610

FILE NUMBER: MV2003F0028

Date: June 1, 2004

To: Mr. Alan Taylor

Organization: Canadian Zinc Corporation

Fax Number: (640) 688-2043

Copied To: Robert Overvold (669-2703)
Parties to Section 24 Hearing

From: Marilyn for Stephen Mathyk

Number of pages including cover 11

Remarks:

Attached Winter Road – Prairie Creek Mine to the Liard Highway Section 157.1 Written Hearing, Reasons for Decision

- ☐ Enclosures
- ☐ As requested
- ☒ For your information
- ☐ For your comment
- ☐ For your approval

Delivered by **Date**

- ☒ Mail
- ☐ Courier
- ☐ Hand Delivered
- ☒ Fax June 1, 2004

This is Exhibit G referred to in the affidavit of Alan Taylor made before me on this 22 day of July 20 04

A Commissioner for taking Affidavits for British Columbia

Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue • P.O. Box 2130
YELLOWKNIFE, NT X1A 2P6
Phone (867) 669-0506 - FAX (867) 873-6610

June 1, 2004

File: MV2003F0028

Mr. Alan Taylor
Vice President Exploration
Canadian Zinc Corporation
Suite 1202-700
West Pender Street
VANCOUVER, BC V6C 1G8

Fax: (604) 688-2043

Dear Mr. Taylor:

Winter Road - Prairie Creek Mine to the Liard Highway
Section 157.1 Written Hearing, Reasons for Decision

Please find the attached Reasons for Decision of the Mackenzie Valley Land and Water Board in the determination of whether a preliminary screening of Land Use Permit Application MV2003F0028 is required based on the legal application of Section 157.1 of the *Mackenzie Valley Resource Management Act*.

If you have any questions regarding this letter, contact me at (867) 669-0506 or email mvlwbpermit@mvlwb.com.

Yours sincerely,

Stephen Mathyk
Regulatory Officer

Attachment: Reasons for Decision – Legal Application of Sec. 157.1

Copied to: Parties to Section 24 Hearing
Robert Overvold, RDG – DIAND

June 1, 2004

Application MV2003F0028

DISTRIBUTION LIST by Fax Canadian Zinc Written Hearing

First Nations

Kelly Pennycook	Deh Cho First Nations	867-695-2038
Laura Pitkanen	Deh Cho First Nations	705-756-4466
John Renaud	Liidlii Kue First Nation	867-695-2665

Government

David Tyson	DFO	867-669-4940
Ed Hornby	South Mackenzie District Office	867-669-2720

Other

Alan Taylor	Canadian Zinc Corporation	604-688-2043
Chuck Blyth	Nahanni National Park Reserve	867-695-2446
Greg Yeoman	Canadian Parks and Wilderness Society	867-873-9593
Randy Christensen	Sierra Legal Defense Fund	604-685-7813

Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue • P.O. Box 2130
YELLOWKNIFE, NT X1A 2P6
Phone (867) 669-0506 • FAX (867) 873-6610

IN THE MATTER OF: **An Application for Land Use Permit MV2003F0028 for Operation, Maintenance and Use of a Winter Road Alignment from the Canadian Zinc Corporation Prairie Creek Mine Site to the Liard Highway;**

AND IN THE MATTER OF: **A hearing pursuant to Section 24 of the *Mackenzie Valley Resource Management Act.***

REASONS FOR DECISION OF THE MACKENZIE VALLEY LAND AND WATER BOARD

Background:

On June 15, 2003, Canadian Zinc Corporation (the Applicant) applied to the Mackenzie Valley Land and Water Board (MVLWB or the Board) for a five year land use permit (MV2003F0028) pursuant to the *Mackenzie Valley Land Use Regulations* (MVLUR) for a winter road to connect its Prairie Creek Mine Site (the Mine) with the Liard Highway near Lindberg's Landing, just east of the Blackstone River in the Northwest Territories. The application indicated that repair of the all weather portion of the existing alignment would take place between August and September 2003 and that use of the winter road would thereafter take place between December 15 and March 31 of each year.

The letter of application indicated that in the Applicant's view, the application was exempt from environmental impact assessment under Part 5 of the *Mackenzie Valley Resource Management Act* (MVRMA) because of Section 157.1 of the MVRMA and the decision of the Northwest Territories Court of Appeal in *North American Tungsten v. Mackenzie Valley Land and Water Board*[1] (the Tungsten decision). The Applicant set out its views on the legal issues in a letter dated September 23, 2003.[2]

The MVLWB sought advice from counsel which was provided on October 13, 2003.[3] The opinions from the Applicant's counsel and from Board counsel came to different conclusions. The Board decided to seek input from interested parties by way of a hearing called pursuant to Section 24 of the MVRMA. Submissions form interested parties were due December 12, 2003. The following parties participated:

[1] 2003, NWTCA 5.
[2] Letter from David H. Searle, C.M., Q.C. to Mr. John F. Kearney, of Canadian Zinc Corporation dated September 23, 2003.
[3] Letter from Board Counsel John Donihee, October 13, 2003.

1. The Deh Cho First Nations;
2. The Parks Canada Agency;
3. The Lidlii Kue First Nation;
4. The Department of Fisheries and Oceans; and
5. The Canadian Parks and Wilderness Society (NWT Chapter).

No submission was received from the Department of Indian Affairs and Northern Development (DIAND). Consequently, in early February, the Board corresponded with that department seeking their assistance. On March 15, 2004, DIAND submitted a letter taking no position on the legal issues but which clarified certain of the facts relied upon by various parties.

Having considered all the submissions made by the parties, the MVLWB has decided that the winter road application is subject to Part 5 of the MVRMA and that the exemption provided by Section 157.1 of the MVRMA does not apply in the case of land use permit application MV2003F0028. The Board's reasons are set out below.

The Facts:

The following chronology of the activity related to the Canadian Zinc winter road was prepared by Board staff, reviewed by the Board and amended based on the submissions of DIAND:

- The original application for land use was submitted to DIAND by Cadillac Explorations Ltd. (Cadillac) on March 8, 1980, under application number N80D249.

- Cadillac was granted a LUP on July 2, 1980, for a winter access route to the Prairie Creek mine site (Prairie Creek to Liard Highway NWT). The permit was approved for 1 year, commencing on July 2, 1980, and expiring July 1, 1981.

- On June 30, 1981, LUP N80D249 was extended to June 30, 1982.

- On June 1, 1982, the LUP was again extended to June 29, 1983.

- On May 31, 1983, Cadillac issued a Bankruptcy Notice. Cadillac had 60% interest in the Prairie Creek development at this time. The operation was taken over by Procan Explorations Company (They held the remaining interest in the mine).

- The original permit for the access road expired on June 29, 1983.

- On July 13, 1983, DIAND received a letter from Procan requesting the LUP be transferred to their name and the LUP be "renewed". There is no further correspondence in the file indicating that LUP N80D249 was ever transferred, renewed or extended past June 29, 1983.

- Some time in 1983 Nanisivik Mines bought the Prairie Creek Mine assets.

- Conwest acquired mine assets in 1990, with Strathcona Mineral Services Ltd. managing the site.

- The actual mine site was tied up in litigation until 1991.

- In 1991 San Andreas Resources Corporation acquired an interest in the mine site.

- In 1995, San Andreas held a land use permit N95F346 over a portion of the road and a separate permit N95C373 to conduct diamond drilling in the Prairie Creek mine site area of the NWT.

- In 1999, San Andreas changed its name to Canadian Zinc Corporation.

- On June 15, 2003, Canadian Zinc Corporation submitted an application to the Mackenzie Valley Land and Water Board for a Type "A" land use permit for a Winter Access Road Development in which they state that they have a legal opinion regarding Part 5 of the MVRMA.

The Application is for use of a winter road alignment that has not been used in entirety since the early 1980's. Portions of the road may have been used in support of the 1995 drilling operations but except for applications made by the Canadian Zinc, the Board finds that no use of the whole road has taken place.

The Authorities:

The MVRMA

> **157.1** Part 5 does not apply in respect of any licence, permit or other authorization related to an undertaking that is the subject of a licence or permit issued before June 22, 1984, except a licence, permit or other authorization for abandonment, decommissioning or other significant alteration of the project.

From section 111:

> "development" means any undertaking, or any part of an undertaking, that is carried out on land or water and, except where the context otherwise indicates, wholly within the Mackenzie Valley, and includes measures carried out by a department or agency of government leading to the establishment of a park subject to the *Canada National Parks Act* and an acquisition of lands pursuant to the *Historic Sites and Monuments Act.*

The Tungsten Decision

The excerpts from the Court of Appeal's decision set out below and were referred to in the submission made by counsel for Canadian Zinc.[4] Paragraph 37 from the Court's judgment is also included:[5]

> [11] .... In essence, this comes down to whether Section 157.1 of the MVRMA grandfathers a licence issued prior to June 22, 1984 or an undertaking licensed prior to June 22, 1984

The Court of Appeal in paragraph 12 concluded:

> ".... that it is the latter", namely that it is the undertaking that is grandfathered, not a licence or a permit.

In coming to that conclusion, the Court of Appeal, in paragraphs 23 and 24 of the Tungsten decision reviewed the overall legislative scheme of the MVRMA and the comprehensive land claim agreements that resulted in the passage of the MVRMA and then it concluded in paragraph 27:

> [27] These provisions (of the MVRMA) collectively reflect that Parliament did not intend to impose an entirely new environmental review process on every project in the Mackenzie Valley irrespective of the status of the project at the time the MVRMA came into effect. Instead, the MVRMA grandfathered certain projects and provided that others yet would be dealt with under prior applicable legislation. In interpreting Section 157.1, therefore, one must recognize that it is designed to grandfather certain undertakings which pre-date June 22, 1984. Accordingly, this section must be interpreted in a manner that best comports with its intended purpose".

Then in paragraphs 32 and 33 the Court of Appeal says that:

> **"The primary focus is on the undertaking itself".** (emphasis added)

Those two paragraphs are particularly relevant here and are quoted in their entirety below:

> [32] The specific wording of s.157.1 supports this interpretation. Under s.157.1, the primary focus is on the undertaking itself. To determine whether an application to renew a licence relating to that undertaking is exempt from the application of Part 5, one must first have regard to whether the undertaking meets the requirements of the section. To do so, the undertaking must be the subject of a licence or permit issued before June 22, 1984. These words modify the word "undertaking" and in this context, the key words are "the subject of". It is noteworthy that the MVRMA does not state that the undertaking must be subject to a licence issued prior to June 22, 1984, but merely that it be the subject of a licence issued prior to June 22, 1984. In other words, to fall within the scope of the exemption under s.157.1, one of the qualities or

[4] Letter cited in foot note 2.
[5] *North American Tungsten v. Mackenzie Valley Land and Water Board,* 2003 NTCA 5. Citations are to paragraph numbers in the case.

characteristics of the undertaking is that it must have had a licence issued as of June 22, 1984. Tungsten's undertaking did. (Underlining in the original decision)

[33] Further, under the grammatical and ordinary sense of the words used in s.157.1, there is no requirement that the undertaking be operating today under an original licence issued before June 22, 1984. Nor is there a need for the licence which is the subject matter of the renewal application to be the same licence issued before June 22, 1984. The French version if s.157.1 is consistent with this interpretation referring as it does to: "une activiteé par un permis délivré avant le 22 juin 1984". **To put it another way, the licence renewal application must relate to the same undertaking that was issued a licence before June 22, 1984.** (emphasis added)

In addition, the Court of Appeal decision commented on but did not decide the legal effect of the application of s.157.1 where the relationship or chain between the original licence and that being applied for in the instant case was broken:

[37] Accordingly, we have concluded that "an undertaking that is the subject of a licence or permit issued before June 22, 1984" means an undertaking in respect of which a licence or permit has been issued before June 22, 1984. **We do not find it necessary to determine whether the licence or permit issued before June 22, 1984 must have some relationship in terms of subject matter, substance and direct linkage to the licence in respect of which a renewal application has been filed. In this case, Tungsten's application for renewal of its water licence does and thus, we leave that issue for another day.** (emphasis added)

Analysis:

Counsel for the Applicant has pointed out that the circumstances associated with the transition from the Canada Tungsten Corporation to the North American Tungsten Corporation bear a similarity to those in this case and in the transition from Cadillac to Canadian Zinc Corporation. Paragraph 37 of the Court of Appeal's decision, however, indicates that the Court did not consider these matters in their North American Tungsten decision. Whether the circumstances are the same then is not helpful. The Board must consider the facts in this matter and apply them to s.157.1 and the Court of Appeal's decision to see if that case applies in the circumstances at hand. If there is no difference between these matters, the MVLWB is bound by the Court of Appeal decision.

The Board notes that all of the parties, with the exception of the company, made submissions which argued that the Application was subject to Part 5 of the MVRMA. Some of these submissions suggested, among other things, that the winter road was abandoned. With respect, the question of abandonment is not important unless the application made is to abandon the project.

More important to the exemption in s.157.1 is the question of whether the new permit will result in a significant alteration of the project. The Applicant suggests that a winter road is never abandoned, something which common

sense does not support. For example, vegetation cut to establish the original alignment could regenerate and eventually would choke the right of way. There are no facts to support a suggestion that the right of way for this road has regenerated in the 20 years since it has been used and the Board is aware that regeneration times in mountainous areas like the project site and road alignment are long. It is clear though, from the June 15, 2003 letter of application that "repair of the all weather portion of the road" and "maintenance ... of the winter road" will be necessary. The Applicant's evidence is however, that no significant alteration of the project is intended and the MVLWB accepts that assertion.

The more difficult question is one of mixed fact and law. What is the relationship between the "undertaking" that was the subject of the permit issued in 1982 and the "undertaking" now proposed by Canadian Zinc?

The use of the term "undertaking" in Section 111's definition of development seems unhelpful in these circumstances. Resort to cases defining the term indicates the following:

The term undertaking has been held time and again to mean more than just physical things. Some examples of judicial interpretation are cited below.

In the *Capital Cities*[6] case the Supreme Court of Canada held, following an earlier decision of the Privy Council, that:

> **"Undertaking" is not a physical thing but is an arrangement under which of course physical things are used.** Their Lordships have therefore no doubt that the undertaking of broadcasting is an undertaking "connecting the Province with other Provinces and extending beyond the limits of the Province."[7] (emphasis added)

In *Capital Cities*, the Supreme Court cited other Supreme Court of Canada cases that had interpreted the meaning of undertaking. One such case referred to was the 1955 case of *Reference re Industrial Relations and Disputes Investigation Act*[8] in which Kellock J. had given a "large meaning to the word" undertaking. One of the questions in that case was whether the stevedoring employees were employed "upon or in connection with the operation of the work, undertaking or business of the Company".

The Supreme Court in *Capital Cities* also cited the case of *[Ontario Attorney General]* v. *Winner*[9] in which the word "undertaking" was used interchangeably with

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[6] *Capital Cities Communications Inc. v. Canada (Canadian Radio-Television & Telecommunications Commission)*, [1978] 2 S.C.R. 141, 81 D.L.R. (3d) 609, 18 N.R. 181 Laskin, C.J. (Martland, Judson, Ritchie and Spence JJ. concurring citing *Regulation and Control of Radio Communication in Canada, Re*, [1932] 2 D.L.R. 81. [hereinafter *Capital Cities*]

[7] *Regulation and Control of Radio Communication in Canada, Re*, [1932] 2 D.L.

[8] [1955] 3 D.L.R. 721 at pp. 748-9

[9] [1954] 4 D.L.R. 657 at 672

the word "enterprise". As well, the Court equated the word "undertaking" with "organization" in the *Empress Hotel* case.[10]

The quote from *Radio Communications* that was adopted by the Supreme Court in *Capital Cities* has been applied in several contexts. For example, it was applied in the railway context in 1945 by Chief Justice Rinfret of the Supreme Court of Canada to mean that "undertaking" in the particular railway statute "comprises the whole works of the company".[11]

Professor Peter Hogg has also considered the meaning of the word "undertaking" in his work on the *Constitutional Law of Canada*. Hogg discussed the term "undertaking" and said that it 'seems to be equivalent to "organization" or "enterprise". '[12]

Later in the book Hogg stated: ' We have already noticed that there are dicta which distinguish between a "work" and an "undertaking" on the basis that a "work" is a tangible thing while an "undertaking" is an intangible "arrangement" or "organization" or "enterprise" '.[13] Hogg's characterization of a work as tangible and an undertaking as intangible may help to characterize what is an undertaking before the MVLWB.

Hogg also cited Viscount Dunedin's definition of undertaking from *Capital Cities* as "not a physical thing, but an arrangement under which...physical things are used."

In conclusion, then, the Board is of the view that the term "undertaking" used in Section 157.1 of the MVRMA should be interpreted in a manner consistent with these authorities. The meaning of the word is broad. For purposes of 157.1 then, the undertaking referred to is more than the physical work or the winter road or the right of way which the company proposes to use again. The undertaking is the whole arrangement under which the physical thing (winter road right of way) is proposed to be used. It includes the whole enterprise proposed by Canadian Zinc.

Here, the Board notes several important facts. The original land use permit expired and was not renewed. The only connection between Cadillac's original use of the road and Canadian Zinc's undertaking seems to be the plan to use the same right of way. Although portions of that road near the mine may have been used in 1995 to support diamond drilling, the large majority of the road alignment has not been used since about 1983. Moreover, the Board notes that although the Applicant terms itself the "successor in title" this relationship to Cadillac's undertaking seems tenuous since the corporate antecedents of Canadian Zinc secured their interest in the mine by way of assets purchase. Canadian Zinc is a different corporate entity from the bankrupt Cadillac.

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[10] *C.P.R. v. A.-G. B.C. et al.* [1950] 1 D.L.R. 721.
[11] *Quebec Railway, Light and Power Co. v. Beauport (Town)*, [1945] S.C.R. 16 at 24, [1945] 1 D.L.R. 145, 57 C.R.T.C. 245.
[12] Hogg, p. 22-4 The
[13] Hogg, p. 22-16.

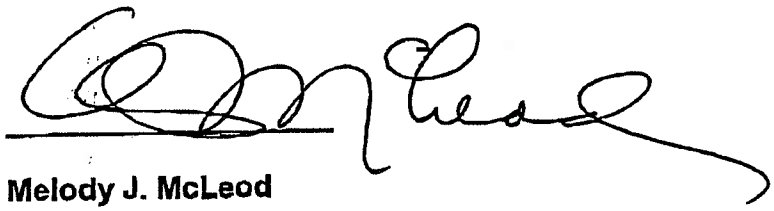
That the Applicant wants a permit to operate the same road is not compelling. The real issue is whether the application is for a permit related to the same undertaking that was in place before June 22, 1984. It seems to the MVLWB that there must be a positive connection between the two. If no such connection were required, any licence, permit or authorization issued before June 22, 1984, would be sufficient grounds for any subsequent unrelated activity at the same site to be exempted from the application of Part 5 of the MVRMA. The Board accepts Parliament's intention, as interpreted by the Court of Appeal, to ensure that activities permitted before June 22, 1984, for which there is sufficient continuity to continue without the need for preliminary screening, since such statutory requirements did not exist before 1984. The effect of this exemption can not be unbounded however. To qualify for the exemption in s.157.1, the undertaking must have a sufficient connection to the one that was there before 1984.

Having considered all the evidence, argument and the facts in this case, the Board is of the view that Canadian Zinc is involved in a different undertaking than that which was present before 1984. It is thus the Board's view that the Tungsten decision does not apply in this case and that Canadian Zinc is subject to Part 5 of the MVRMA.

Conclusion:

After considering all the submissions made, the MVLWB is of the view that Canadian Zinc's application for land use permit MV2003F0028 is not in respect of the undertaking originally permitted to Cadillac. Consequently, the Board has decided that Section 157.1 of the MVRMA does not provide an exemption from Part 5 of the Act and that the land use permit application is subject to preliminary screening.

SIGNED on behalf of the Mackenzie Valley Land and Water Board



Melody J. McLeod
Chair

Copy to: Canadian Zinc Corporation
Parties to Section 24 Hearing
Bob Overvold, RDG DIAND

S-0001-CV 2004 000236

IN THE SUPREME COURT OF THE
NORTHWEST TERRITORIES

BETWEEN:

CANADIAN ZINC CORPORATION

APPLICANT

AND:

MACKENZIE VALLEY LAND AND
WATER BOARD

RESPONDENT

AFFIDAVIT OF ALAN TAYLOR

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**UNDERTAKING
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