GRANULAR RESOURCES INVENTORY --
NORTH ALASKA HIGHWAY CORRIDOR
(km 1748 - km 1966, Alaska Highway, Yukon)

Submitted to:
INDIAN AND NORTHERN AFFAIRS CANADA

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0201-4981

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1.0 INTRODUCTION

EBA Engineering Consultants Ltd. (EBA) has completed a compilation of existing geotechnical data for an inventory of granular resources along the "North Alaska Highway Corridor (Yukon)". The scope of work was defined by Indian and Northern Affairs Canada (INAC), in a proposal request dated November 4, 1988. The project was authorized under Supply and Services Canada (SSC) Contract No. A7134-8-0037/01-ST on January 9, 1989. The Scientific Authority for the contract was Mr. R.J. Gowan, P. Geol., of INAC.

1.1 Study Area

The study area includes a corridor designated herein as the North Alaska Highway Corridor, that extends eight kilometres on each side of the Alaska Highway from K.P. 1748 (south of Burwash Landing) to K.P. 1966 (International Border, northeast of Beaver Creek), a total distance of approximately 218 km. Figure 1 shows the location of the Alaska Highway in the Yukon, and the area of study.

1.2 Scope of Work

The objective of the study was to assemble and catalogue the available geotechnical and related geoscience data for the Alaska Highway corridor and to compile this information in a standardized computer - based format to permit analysis of the corridor's granular resources. To achieve this objective, seven major tasks were performed:

Task 1: The location and collection of all available geotechnical and geophysical data for the North Alaska Highway, and compilation of this data into a computerized Report Catalogue database.

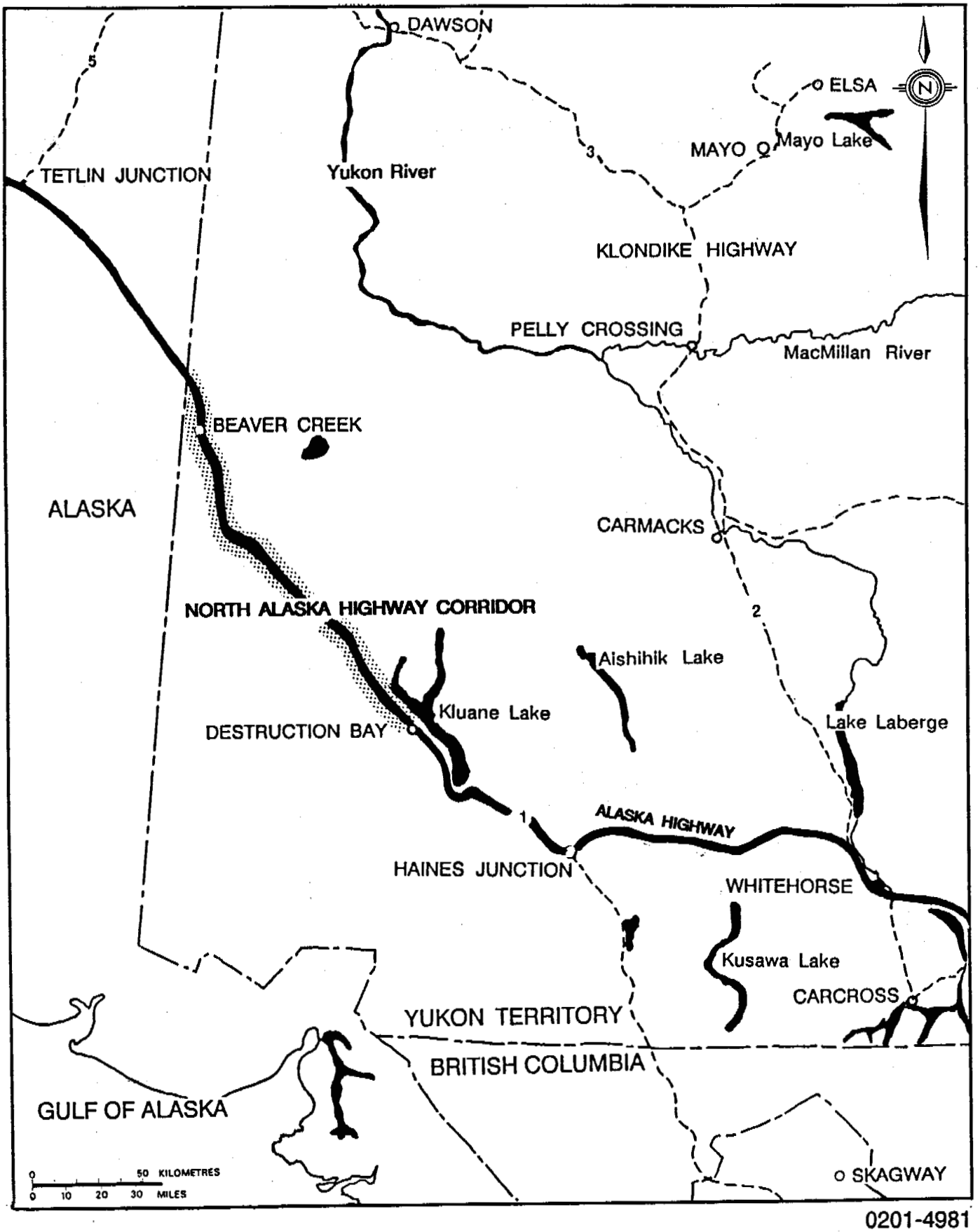


FIGURE 1

NORTH ALASKA CORRIDOR AND AREA OF STUDY

Task 2: Review of the available information in terms of quantity, quality and detail and determination of its "usefulness" for the evaluation of granular resources. The original cost estimate for compiling all "useful" data, as required under Tasks 3 and 4, below, was also revised as part of Task 2.

Task 3: Compilation of a computerized Source Catalogue which summarizes all available geotechnical information pertaining to known granular sources within the Highway corridor. This Source Catalogue was created in a standardized format which was linked to the other databases as described in this Report.

Task 3a: A second portion of Task 3 was to create "user friendly" menus to access the Report Catalogue (Task 1), Source Catalogue (Task 3) and the ESEBase borehole database (Task 4).

Task 4: Interpretation of data summarized in Task 3 and compilation of all "useful" borehole logs into ESEBase format.

Task 5: Preparation of a Final Report to describe the results of this study.

This concludes the initial Terms of Reference. However, Task 2 determined that there were more logs which should be incorporated into the database to complete the inventory, than could be accomplished within the original budget. Consequently, the contract was amended by SSC, on June 16, 1989, to review and summarize existing hard (paper) copy logs and laboratory test data for a specified number of additional borehole logs, to partially edit a database of borehole and test pit logs created by Public Works Canada (PWC) in ESEBase, and to incorporate all of these additional logs into the North Alaska borehole database (Task 4). This work was completed as Tasks 6 and 7.

Task 6: Compilation of the existing hard copies and laboratory test data of an additional 121 borehole logs, and input of these into ESEBase, using the same format as in Task 4.

Task 7: The partial edit of 170 Public Works Canada borehole and testpit logs already in ESEBase, to incorporate them into the existing database (per Task 4).

1.3 Acknowledgements

The completion of this project would not have been possible without the cooperation of many individuals from Federal Departments (PWC), the Territorial Government and industry (Foothills Pipelines). In particular, J. Ballantyne, INAC - Land Use, Whitehorse, for preparing a list of land use permits and assisting in obtaining many of the Foothills' reports. R. Lidgren, PWC, Whitehorse, for authorizing the loan of PWC reports and files and providing some of the Foothills' reports. R.J. Laithwaite, Foothills, for authorizing the use of specific reports. H.N.E. Hobbs, Foothills, for assisting in locating and obtaining additional Foothills reports. I. Harrison, and J. Flumerfelt, YTG, for their assistance in verifying locations and names of specific sources along the Highway Corridor.

2.0 METHODOLOGY

The proposed methodology for the study was reviewed at a project initiation meeting attended by YTG, PWC, INAC and EBA representatives, held on January 23, 1989, at EBA's office in Whitehorse. This meeting also identified some additional sources of information relevant to the study, and provided suggestions regarding standardization of the various databases.

2.1 Task 1 - Compilation of Report Catalogue

To prepare the Report Catalogue, additional meetings and telephone conversations were held to locate and obtain copies of all available reports, maps and charts containing granular resource data for the North Alaska Highway

Corridor. Initially, a list of land use permits was obtained from INAC - Land Use in Whitehorse, which provided a good base from which to search for additional data.

Ultimately, the following series of reports were obtained:

- Regional granular resource inventory and community borrow pit studies completed for INAC. These were provided by INAC - Land Use, Whitehorse.

- Highway borrow material and aggregate inventory report prepared and provided by PWC, Whitehorse.

- Pipeline borrow, route alignment and other site specific geotechnical investigations completed for Foothills Pipe Lines Ltd. Some of the reports comprising this extensive body of high quality information were available in EBA's library, others were available from PWC Whitehorse, and the remainder were released by Foothills through INAC - Land Use, Whitehorse.

The Transportation Engineering Branch of the Yukon Government was also contacted, but they had no additional information other than that already provided by PWC.

All the collected reports that contained geotechnical or geophysical information for the North Alaska Highway Corridor were summarized in dbase III+ on the "Granular Resources Database - Report Catalogue Data Sheet". Standardization of the input was controlled by the guidelines in the Data Dictionary--Report Catalogue in Appendix A. A printed copy of the Report Catalogue is found in Appendix B.

Study numbers as described in the Data Dictionary were assigned to each report. This identifier number consists of a four digit alphabetic prefix and a three digit number, separated by a dash (-). The four letter prefix assigned to the North Alaska Highway Corridor project was "NAHC". The reports in the catalogue

were numbered in chronological order from oldest to most recent (e.g. NAHC-001). For completeness, all of the reports examined were included in the Report Catalogue, whether or not they contained actual Sources. In the latter case, the Source No(s) field of the Catalogue describes briefly the contents of the Report.

Initially, all possible sources of material described in the Reports were included and listed as unique Sources. Any "source" that contained gravel was assigned a Source Number corresponding to the km post shown on the original logs or in the original report in which it was described. After the driving trip to confirm the sources and locations, the Report Catalogue was corrected to show only the source numbers of sources which did contain usable quantities of granular material. All of the other original sources that did not meet this criteria for a "source" were left in the catalogue for reference purposes only under "OTHER SOURCES INVESTIGATED".

2.2 Task 2 - Data Review

At this stage of the data analysis, all of the existing information was summarized. Approximately 2500 logs were counted within the study corridor, and approximately 1500 of these were located in granular sources. The balance of the logs were Foothills centreline holes, and holes drilled for specific purposes such as compressor stations and frost heave test sites. These logs were not included as the holes were spaced at intervals along the pipeline route, and did not contain sufficient data about any particular source, although gravel was detected in numerous holes. In addition, it was assumed that any holes which detected good gravel were likely included or re-drilled as part of the Foothills Borrow Source Program--this report is in the Report Catalogue.

Of the 1500 logs remaining, 593 were considered suitable for inclusion in the database, ranked as follows:

GROUP A--Good Logs: Total 416

These represented holes drilled since 1980 with good site plans, good laboratory test data, and show gravel with <25% passing the 75 um sieve, with no shale.

Of these 416, 170 were from boreholes recently drilled by Public Works Canada, and were entered into ESEBase format in the late Spring of 1989.

GROUP B--Fair to Good Logs: Total 64

These were basically the same quality of logs as in Group A, except that they were drilled earlier than 1980.

GROUP C--Poor to Fair Logs: Total 113

These logs were also of an earlier date and contained gravel with between 25% and 30% passing the 75 um sieve. These logs were to fill in the gaps between Group A and Group B logs.

The remaining approximately 900 logs in granular sources were not included in the database as they did not show any gravel at all, and/or the locations were missing.

2.3 Task 3 - Preparation of Source Catalogue and Driving Trip to Confirm Sources

2.3.1 Source Catalogue

All of the data that was found during Task 2, with the exception of some PWC ESEBase logs (see Section 3.4.2), was compiled into distinct sources and each assigned a Source Number. This was a seven digit alphanumeric field of six

numbers and one letter. The six numeric characters represent the kilometre post to tenths (no decimal point) along the North Alaska Highway where the centre of the source is located. The alpha character represents the side of centreline at which the source is located, looking in the direction of increasing kilometre posts (L-Left; R-Right; B-Both).

The data for each "source" in the catalogue was compiled using dBase III+ software, and presents an accumulation of all descriptive information available in terms of source location, status, deposit description, material quantities, and maps for that deposit.

All of the data was then summarized and tabulated for each source and entered into the Source Catalogue, with each source described on a "Granular Resource Database--Source Catalogue Data Sheet". The Data Dictionary which defines the components of the data sheet is found in Appendix C, followed by a printed copy of the Source Catalogue in Appendix D.

2.3.2 Driving Trip to Confirm Sources

After all of the available report data was entered into the Source Catalogue, a field trip was arranged to check and verify each source, and also to discuss the findings with Highways Foremen (Gov't of Yukon) in Destruction Bay and Beaver Creek. The foreman also provided local names used in the Highways Department, for many of the sources, and also assessments of material performance.

2.3.2.1 Beaver Creek

In the Beaver Creek area, the following problem areas within local sources were discussed:

(a) Edith Creek Pit, Source "1884.1R", is almost depleted and has water table problems in the spring. The Foreman noted that a new pit on the opposite side of Edith Creek may be opened up soon.

(b) Sawmill Pit, Source "1936.0B", is used as the primary source of road crush in the area. All crush in stockpiles north of Beaver Creek is hauled from this pit.

(c) Source "1957.8", is a good source of pitrun but not for crushing aggregate.

(d) Although not a Source in this catalogue, the soil from "1917.5R" was used for embankment construction during the floods in August 1988.

(e) The Foreman was interested in sources which had large quantities of oversized material, because this is needed as rip-rap for some projects.

2.3.2.2 Destruction Bay

In the Destruction Bay portion of the study area, the following problem areas were discussed:

(a) Donjek River Pit, Source "1821.4B", has a groundwater problem. Only about 2.0 m of material can be removed before the water table is encountered.

(b) Burwash Creek Pit, Source "1776.0B", on the right side of the Highway has been crushed and depleted. It is necessary to start pit development on the left side now.

(c) Pits at 1800.6 RHS and 1800.9 LHS were not identified as sources by EBA (no borehole logs in area). The pit on the RHS had been recently crushed with good results and a stockpile of crushed aggregate was on site. This pit can not be greatly expanded due to a stream that runs to the right of the present pit. The pit on the LHS has not been used for crushing due to a high fines content.

2.3.3 Task 3(a)--"User Friendly" Menus

Programs to create a user-friendly menu that will simplify access to the Report Catalogue, the Source Catalogue and the ESEBase Borehole Database, were written and compiled by EBA's programmers in Edmonton. This is discussed further in the Data Presentation, Section 3.2.

2.4 Task 4 - ESEBase Borehole Database

Input of the borehole and testpit logs, and associated laboratory test data, was carried out using the ESEBase program, Version 3.0. The rationale for selection of logs that were input into the database is defined in Section 2.2. The data input was standardized to maintain consistency with previous databases compiled by INAC. Care was taken to ensure that proper cross-referencing between Boreholes, the Source Catalogue and the Report Catalogue was maintained.

Each borehole log input into the database was assigned a new eight digit Borehole Number. The first five digits represent the Source Number (to tenths of a km, but without the decimal place) followed by a "B" for borehole or "T" for testpit, and a two digit numerical suffix representing the original borehole or testpit number, where applicable. (e.g. 17664B01--Source at km 1766.4, B for borehole and 01 as the original borehole number).

The location of each borehole was defined by UTM coordinates from 1:50,000 NTS Maps, Site Plans, or using the existing borehole location as already defined in UTM coordinates. Table 1 summarizes all 1:50,000 NTS maps used for this project, from which UTM coordinates were determined, as necessary.

The bulk (over 70%) of the original logs were in hard (paper) copy, and therefore they were entered into ESEBase by manual (keyboard) means.

TABLE 1

List of 1:50,000 NTS Maps Used to Determine
UTM Coordinates
North Alaska Highway Corridor

MAP NO.	TITLE	DATE	REVISION	K.P. COVERAGE
115 G/7	Burwash Landing	1983	2	1743.0-1759.7
115 G/6	Duke River	1983	2	1759.7-1786.1
115 G/11	Nuntaea Creek	1983	2	1786.1-1805.8
115 G/12	Lynx Creek	1983	2	1805.8-1837.4
115 G/13	Tom Murray Creek	1983	3	1837.4-1842.3
115 G/16	Koidern	1986	2	1842.3-1878.4
115 F/15	Canyon Mountain	1986	2	1878.4-1882.7
115 K/2	Dry Creek	1984	3	1882.7-1914.2
115 K/7	Enger Creek	1985	3	1914.2-1948.7
115 K/10	Scottie Creek	1986	2	1948.7-1965.7

2.5 Task 5--Report

Task 5 consists of the preparation of this Report, which, through Contract Changes, includes Tasks 6 and 7 as described in the following sections.

2.6 Task 6--Input of Additional Logs

This task involved the input of 121 additional borehole logs previously identified under Task 2. The logs were input from existing hard copies and associated laboratory test data, in the same format as described in Section 2.3

2.7 Task 7--Editing of Public Works Canada Logs

Public Works Canada provided diskette copies of 170 borehole and testpit logs completed in 1988. Some of the logs were in DOS 3.2 format while the rest were in DOS 3.3 format. All logs were converted to DOS 3.2, to be consistent with the rest of the database.

Although the PWC logs were in ESEBase format, editing was required on the Index Screens and Sample Summary Screens to change them into the standardized format of this project, and to enable these logs to be printed using the standardized outline. The following changes were made to the Index Screens and Sample Summary Screens:

(a) The Borehole numbers were changed to reflect the standardized format in the data dictionary. For some unexplained reason, some of the borehole name fields in the "Soil Description" screen would not change over with the "Change Name" command. These erratic extra changes had to be made in dBase III+.

(b) The Project Number, Project X-Reference, Project Name, Client Name, Note Box and Drilling Information fields were all changed to the standardized format of this project. Most of these changes were completed in the "browse" mode of dBase III+.

(c) UTM's were added for each Borehole and Testpit, from the site plans supplied by PWC.

(d) To conform with the logplot format, changes were made in the "Sample Type" field on the Sample Summary Screens. This involved changing PWC sample type names to correspond with the standardized sample type names used in this database.

3.0 DATA PRESENTATION

3.1 Data Dictionaries

The data dictionaries for both the Report and Source catalogues were modified, from those originally supplied by INAC, to better suit this project. These data dictionaries are found in Appendix A (Report Catalogue) and in Appendix C (Source Catalogue).

3.2 User Friendly Menus

To make full use of the menu system and of the databases compiled as part of this study, the user will require the following commericially-available software:

- dBase III+ (or similar) to access the Report and Source Catalogue databases.
- ESEBase (Vers. 3.0) to access the Borehole Database
- R&R (Relational Report Writer) to print the data sheets created for the Report and Source Catalogue databases.

The "User Friendly" menus were prepared to simplify the access to the Report Catalogue, Source Catalogue, and ESEBase Borehole Database. This will enable the user to access all sources of data for this section of the Alaska Highway from a single menu. Other databases can also be added as required (the Dempster Highway Corridor is included on the Menu).

Figure 2 summarizes the components of the new menus. To access the Main Menu:

1. Ensure that dBase III+ and R&R (Relational Report Writer) have a PATH from \ESEBase
2. Restore N-ALASKA ESEBase files from diskettes--this will create \ESEBase\N-ALAKSA
3. Copy the following files into \ESEBase

   ESEBASE.BAT
   MASTER.EXE
   GRANULAR.BAT
   ESEPROG.EXE

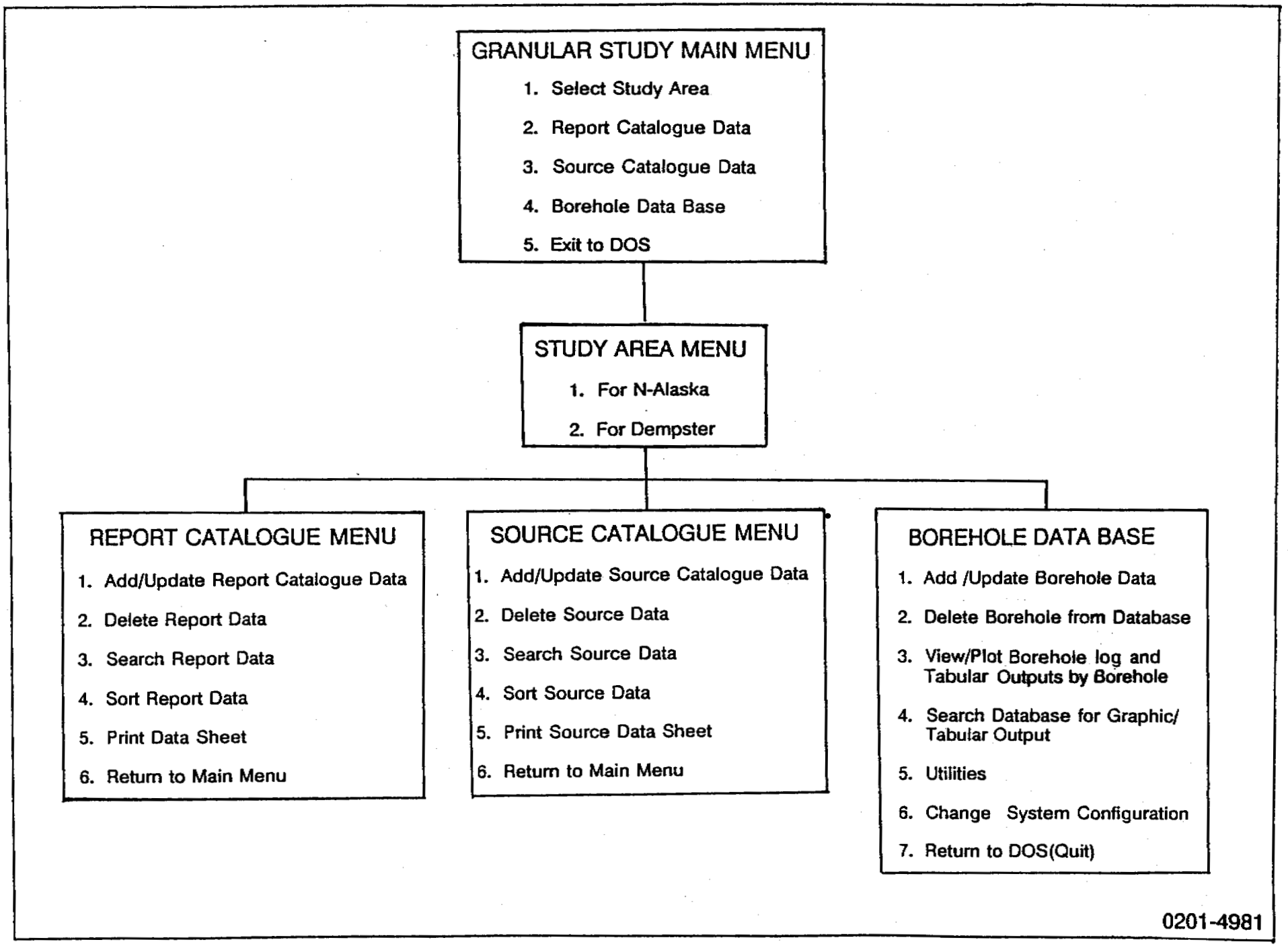


FIGURE 2 USER FRIENDLY MENUS FOR GRANULAR RESOURCE DATABASE

4. Copy the following files into \N-ALASKA:

   NAREPORT.DBF
   NASOURCE.DBF
   NAREPORT.RP1
   NASOURCE.RP1

5. From \ESEBase, type GRANULAR

6. Select STUDY AREA

7. Both the REPORT and SOURCE items from Main Menu take the User into dBase III+, and the Report or Source Catalogues are already set up. The user must then know how to use the ASSIST Menu, or other dBase III+ commands to proceed further.

8. The PRINT option opens up R&R, which has its own menus for printing. The User must first enter the appropriate library from C:\ESEBASE\N-ALASKA*.RP1 and then Retrieve NAREPORT or NASOURCE, as required.

One minor change was made to the EBEBase Index Screen, to accommodate cross-referencing to the Source and Report Catalogues. The three-line Cross Reference Field on the Index Screen was changed to single-line Report No. and Source No. fields. By copying the file ESEPROG.EXE from the enclosed Diskette No. 1, this modification will be made to an existing ESEBase program.

3.3 Report Catalogue (Appendix B)

3.3.1 Records

The Report Catalogue (NAREPORT.DBF) includes a total of 18 Reports in chronological order from oldest to most recent. A hard copy of each record in the Report Catalogue is included in Appendix B, and 360k diskette copies (formatted in DOS 3.2) are also included in the pocket at the back of this report.

3.3.2 Data Reliability

The "COUNT" function of dBase III+ was used to determine the number of Unknowns and N/A's for each field in all the reports. This performance check is summarized in Table 2, which shows the Field Names, with the number and percentage of Unknowns and N/As in each field.

TABLE 2

Report Catalogue - Data Reliability Check

Field Name [1]	Number of Unknowns [2]	% of Unknowns
Location Map No.	12	67
Site Plan No.	10	56
Location Map Scale	11	61
Site Plan Scale	10	56
Study Size	2	11
Program Length	3	17
Season	1	6
Equipment Type	3	17
Penetration	5	28
Resolution	5	28
Sample Rate	6	33
Sample Quality	6	33
Sample Type	6	33
Sample Size	6	33

NOTES: 1. Only those containing "Unknowns" are listed.
2. "Unknowns" includes N/A, NA and Unknown.

3.4 Source Catalogue

3.4.1 Records

A total of thirty (30) individual sources have been identified. Each of these are referenced to a Kilometre Post along the Alaska Highway. Hard copies of the Source Catalogue (NASOURCE.DBF) are included in Appendix C, and 360k diskette copies (formatted in DOS 3.2) are included in the pocket at the back of this report.

3.4.2 Data Reliability

The "COUNT" function of dBase III+ was used to determine the number of Unknowns and N/A's for each field in the Source Catalogue. Table 3 summarizes the field names, and shows the number and percentages of Unknowns and N/A's.

TABLE 3

Source Catalogue - Data Reliability Check
North Alaska Highway Granular Resource Database

Field Name [1]	Number of Unknowns [2]	% of Unknowns
Local Name	7	23
Stockpile Type	14	47
Performance Rating	11	37
Stockpile Quantity	18	60
Geophysical Data	17	57
Testpit Depth	17	57
Exposure Depth	30	100
Permafrost Features	5	17
Active Layer Thickness	12	40
Underburden Type	19	63
USC Class	1	3
Moisture Content Results	7	23
Size Analysis No.	1	3
Gravel (%)	1	3
Sand (%)	1	3
Fines (%)	1	3
Oversize (%)	17	57
D-50	1	3
Petrographic Analysis - Results	24	80
Class 1	22	73
Class 2	19	63
Class 3	16	53
Class 4	27	63
Class 5	30	100

NOTES: 1. Only those containing "Unknowns" are listed.
2. "Unknowns" includes N/A, NA and Unknown.

Since the 170 PWC ESEbase logs for Task 7 were not available until late in the project, most of these logs were not included in the Source Catalogue. Exclusion of these logs affects only the following fields:

Part B: Source Investigation and Descriptive Information

- Boreholes - Number and Depth
- Testpits - Number and Depth
- Test Hole Density
- Granular - Thickness
- Overburden - Thickness

Part C: Test Results and Material Quantity

- USC - Number and Class
- Moisture Content - Number and Results
- Size Analysis - Number and Percentages of Aggregate Sizes

It is felt that the Total Recoverable and Total Volume would not be effected to any noticeable extent as the PWC logs did not enlarge the individual source areas.

Table 4 is a listing of all the PWC Borehole and Testpit Logs not included in the Source Catalogue.

TABLE 4

PWC Logs Not Included in Source Catalogue

Source No.	No. of Logs	BOREHOLE NUMBERS	
		Original No.	ESEBase No.
1750.0B	39 Testpits	(km 1750) 01 to 39	17500T01 to 17500T39
1766.4L	51 Testpits	(km 1766LHS) 01 to 42 84 to 92	17664T01 to 17664T42 17664T84 to 17664T92
1776.0B	8 Boreholes	(km 1776 LHS) 85-93 to 85-100	17760B53 to 17760B60
	11 Testpits	01 to 11	17760T01 to 17760T11
1798.0B	15 Testpits 3 Boreholes	(km 1797 LHS) 01 to 15 2A-022-3, 6 and 7	17980T31 to 17980T45 17980B23, 17980B26 17980B27

3.5 Borehole Database

A Total of 384 Boreholes and 209 Testpits were entered into the standardized ESEBase Log format.

The PWC logs, though, were only edited on the Index Screen as described in an earlier section of this report. Due to budgetary constraints, no attempt was made to correct or standardize any other section of these logs.

While compiling the final borehole log database, it was found that there were 28 borehole logs from report NAHC-010 with no exact UTM locations. In the Report these logs were indicated as being within certain "Foothills' Sources". After again reviewing all the Foothill's maps gathered for this study, an exact location for the holes could not be found. It was decided to assign these 28 borehole logs the UTM coordinates of the centre of the "Foothills Source" in which they were located. Table 5 summarizes these 28 boreholes and their UTM coordinates. Should the missing data be located, these coordinates should be revised.

The 593 Borehole and Testpit Logs are included on eight - 360k diskettes in (DOS 3.2 format) in the pocket at the back of this report. A separate volume entitled "ESEBase Borehole/Testpit Database, North Alaska Highway Corridor, Y.T." contains hard (paper) copies of the borehole logs.

4.0 RECOMMENDATIONS AND CONCLUSIONS

The existing granular resources data for the North Alaska Highway Corridor has been summarized in a Report Catalogue, Source Catalogue, and a Borehole Database containing 593 Borehole and Testpit Logs. An exhaustive search was completed to ensure that all the available data has been included.

The field verification trip provided excellent background to the present uses of the "Sources". Much information was gained from the conversations with the Highway's Maintenance Foreman in both Destruction Bay and Beaver Creek as they

TABLE 5

Summary of Boreholes With
Approximate UTM Coordinates

N-Alaska Data Base Borehole Number	UTM Zone 7 Northing	Easting
18214B01	6,837,150	567,250
18214B2L	"	"
18790BP2	6,872,850	526,500
18825B56	6,873,550	522,150
18825B57	"	"
18825B58	"	"
18825B59	"	"
18909B51	6,877,600	519,100
18909B52	"	"
18950B02	6,883,300	518,250
18950B03	"	"
18950B47	"	"
18950B48	"	"
19005B02	6,889,500	517,500
19005B03	6,889,100	517,650
19005B04	"	"
19005B42	6,889,500	517,500
19005B43	6,889,100	517,650
19180B01	6,903,930	516,275
19180B02	"	"
19360B17	6,918,070	507,210
19360B19	"	"
19360B20	"	"
19578B01	6,936,350	500,700
19578B02	"	"
19578B03	"	"
19578B31	"	"
19578B41	"	"

use some of the sources on a regular basis. It is recommended that any future databases of this type include meetings with the local road maintenance people. The field trip also helped to correct the Kilometre Post locations of the sources. Although there has not been a lot of re-alignment of the Alaska Highway in this area, there was enough since the original reports were written to make a difference, in some instances, of about 2.0 km.

One "new" borrow source was also discovered during the field verification trip. An excellent granular borrow source at km 1800.6 RHS was found by the local Maintenance Foreman and has not been included in any of the Reports since it has not been drilled, to our knowledge. It is possible that there could be other good Sources along this section of the highway, and these might be detected through airphoto interpretation.

It should be noted that for any "Source" that is still totally undeveloped, it was not possible to determine whether or not the source aggregate contained shale. If any of these sources are to be developed, it is recommended that additional geotechnical information be obtained prior to development. Shaly particles would show as gravel in the grain size analysis, but might render the source unacceptable for crushing or surfacing aggregate.

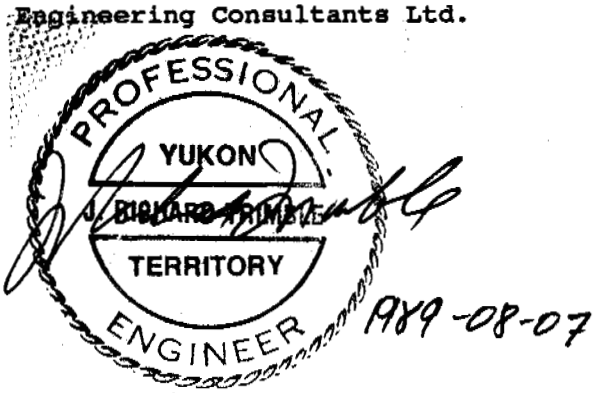
To facilitate the Source Catalogue updates, consideration should be given to developing programs within the ESEBase shell which would automatically update the Source Catalogue as each new borehole/testpit in the source is added. These programs might also include Data Entry Screens for the Report and Source Catalogues, which would relieve the User of entering data in the (sometimes cumbersome) APPEND or BROWSE options of dBase III+.

Finally, this project includes only 593 logs up to 1988. All future borehole and testpit log data should be entered into the Report Catalogue, Source Catalogue and the Borehole log database, as applicable. In this manner, the database would not become outdated.

It is hoped that the new "User Friendly" menus will help to eliminate some of the problems encountered regarding the difficulty in using the existing data. When this database is sent to the different users, they must update their ESEBase program to include the changes incorporated in this database (using the enclosed ESEPROG.EXE).

Respectfully submitted,

EBA Engineering Consultants Ltd.



J. Richard Trimble, P. Eng.,

Project Director

Office Manager

JRT/spr

APPENDIX A

DATA DICTIONARY--REPORT CATALOGUE

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE

DATA DICTIONARY--REPORT CATALOGUE

PART A: STUDY REFERENCE AND LOCATION

AA - STUDY NUMBER:

A unique study identifier number which serves as a link to other databases (e.g. Source Catalogue, ESEBase Borehole database). This number consists of an eight-character field, with the first four characters an alphabetic prefix representing the geographical location of the database, followed by a dash and a three digit study number. The three digit number is derived from the chronological listing of all reports containing granular resource data from the study area.
(e.g. NAHC-001: North Alaska Highway Corridor- earliest report)

AB - YEAR:

The calender year in which the majority of the field work on the study was completed. (e.g. 1983)

AC - SPONSOR:

The name of the company, department, agency or organization sponsoring the study. (e.g. Indian and Northern Affairs Canada, Yukon Transportation Engineering, Public Works Canada)

AD - REPORT TITLE:

The title of the original report.

AE - CONTACT:

The name of the person within the sponsoring organization who might be contacted to obtain additional information on the study and/or authorization for its use.

AF - CONTRACTOR:

The name of the prime contractor, consultant or group contracted by the sponsor to undertake the study (e.g. EBA Engineering Consultants Ltd., Northern Engineering Services Ltd.)

AG - DATA QUALITY:

A subjective evaluation of the usefulness of the data in the report, relative to the preparation of the database.

AH - FILE NUMBER:

The contractor's file number.

AO - LOCATION MAP SCALE:

The scale, expressed in terms of the representative fraction (e.g. 1:250,000) of any small scale accompanying regional map or trackplot which indicates the location of the study area, or series of separate detailed study/borrow sites or regional survey lines. The denominator only of the representative fraction is given since the numerator is consistently "1" (e.g. 250000)

AP - SITE PLAN SCALE:

The scale(s), expressed in terms of the representative fraction(s) (e.g. 1:50,000, 1:10,000) of up to six larger scale accompanying local maps, site plans or trackplots which indicate the location of individual detailed study/borrow sites, boreholes/ testpits/grab samples or detailed survey grids for separate study/borrow sites within the main study area. The denominator only of the representative fraction is given since the numerator is consistently "1" (e.g. 5000)

AQ - LOCATION MAP DIGITIZER NUMBER:

A unique five digit identifier number, to be assigned by INAC, which identifies a data set of points, lines, or polygons to be digitized from the location plan. This number links the report catalogue database to INAC's spatial database system.

AR - SITE PLAN DIGITIZER NUMBER:

A unique five digit identifier number or series of numbers, to be assigned by INAC, which identifies a data set of points, lines, or polygons to be digitized from the site plans. This number links the report catalogue database to INAC's spatial database system.

AS - LOCATION MAP ARCHIVING:

The general availability and, where appropriate, specific location of storage of any map or plan number of any small scale accompanying regional map or trackplot which indicates the location of the study area, or series of separate detailed study/borrow sites or regional survey lines (e.g. sponsor/contractor in-house, private/public repository, government agencies, ect.).

AT - SITE PLAN ARCHIVING:

The general availability and, where appropriate, specific location of storage of up to six larger scale accompanying local maps, site plans or trackplots which indicate the location of individual detailed study/borrow sites, boreholes/ testpits/grab samples or detailed survey grids for separate study/borrow sites within the main study area (e.g. sponsor/contractor in-house, private/public repository, government agencies).

PART B: STUDY DETAILS

BB - STUDY TYPE:

The type of data collected during the study or sub-study (e.g. hydrographic, geophysical, seabed sampling, geotechnical, dredging)

BC - STUDY SCOPE:

The areal scope of the study or sub-study (e.g. regional, site specific - single site, many sites)

BD - STUDY SIZE:

The extent or size of the study in terms of number of potential borrow sites identified, number of testpits or boreholes, or total number of line kilometers of geophysical data. (e.g. 21 sites; 55 BH's; 145 km)

BE - SURVEY LEVEL:

The general purpose or level of detail of the study (e.g. airphoto interpretation, reconnaissance, exploration, delineation, production)

BF - SURVEY PATTERN:

The pattern in which the individual borrow sites within the study area occur, or in which boreholes or survey lines within specific detailed study sites were laid out. (e.g. random, corridor, line, grid)

BG - SURVEY SPACING:

The relative (e.g. random, wide) or actual (range and/or average) spacing of the survey data or study sites. (e.g. 250 m E-W, 500 m N-S; 10 - 15 km)

BH - PROGRAM LENGTH:

The length of the field data collection or survey program, in days or showing specific dates.

BI - SEASON:

The season of the year in which the field data collection or survey program was conducted. (e.g. late summer, winter)

BJ - EQUIPMENT TYPE:

The type(s) of equipment used to collect data or obtain samples. (e.g. hand-excavated testpits; D8 cat; sonic drill; CME 750 Auger drill, etc.)

BR - REPORT LEVEL:

The type or level of detail of any report(s) resulting from the study. (e.g. annotated records, field logs/report only, summary/data compilation report, formal geophysical interpretation/ geotechnical evaluation report)

BS - REPORT DISTRIBUTION:

The extent of distribution and/or general availability of any reports resulting from the study. (e.g. internal, sponsor/contractor only, specific government departments/agencies/libraries, published)

BT - DATA ARCHIVING:

The general availability and, where appropriate, specific location of storage of raw data obtained during the study. (e.g. sponsor/contractor in-house, private/public repository, government agencies).

APPENDIX B

REPORT CATALOGUE

18 RECORDS

dBASE III+ FILE: NAREPORT.DBF

REPORT OUTLINE (R & R): NAREPORT.RP1

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

========== PART A: STUDY REFERENCE AND LOCATION ==========

STUDY NUMBER : NAHC-001
SPONSOR : PWC
YEAR : UNKNOWN
REPORT TITLE : Materials Inventory- Mile 900-1220, Alaska Highway Line Diagram

CONTACT : Mr. Roy Lidgren (PWC)
CONTRACTOR : PWC
FILE NUMBER : No File Number
DATA QUALITY : Of Little Use

LOCATION MAP : No Location Map Included
SITE PLAN : No Site Plans

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO. : N/A
ARCHIVING : N/A

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO.: N/A
ARCHIVING : N/A

MINIMUM ZONE : 7 MINIMUM EASTING: 500000 MINIMUM NORTHING: 6718000
MAXIMUM ZONE : 8 MAXIMUM EASTING: 506800 MAXIMUM NORTHING: 6940000

SOURCE NO(S) : Line diagram indicates material types along highway. There are no actual sources indicated.

========== PART B: STUDY DETAILS ==========

STUDY TYPE : Geotechnical
STUDY SCOPE : Regional
STUDY SIZE : 130 Gravel Sites; 320 Miles
SURVEY LEVEL : Reconnaissance
SURVEY PATTERN: Corridor
SURVEY SPACING: Unknown

PROGRAM LENGTH: Unknown
SEASON : Unknown

EQUIPMENT TYPE: No Field Work In This Report
PENETRATION(m): N/A
RESOLUTION : N/A

SAMPLING/RECORDING

RATE : N/A
QUALITY : N/A
TYPE(S) : N/A
SIZE : N/A
N/A

INTERPRETATION/TESTING LEVEL : Field Data
REPORT LEVEL : Line Diagram Indicating Soil Types
REPORT DISTRIBUTION : Internal
DATA ARCHIVING : PWC Whitehorse

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

PART A: STUDY REFERENCE AND LOCATION

STUDY NUMBER : NAHC-003
SPONSOR : Foothills Pipelines (South Yukon) Ltd.

CONTACT : D.M.Davison, P.Eng.
CONTRACTOR : Klohn Leonoff Consultants Ltd.
FILE NUMBER : AL0709

YEAR : 1976
REPORT TITLE : Test Hole Logs Foothills (Yukon) Pipeline Route

DATA QUALITY : Good

LOCATION MAP : No Location Map Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO. : N/A
ARCHIVING : N/A

SITE PLAN : No Site Plan Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO.: N/A
ARCHIVING : N/A

MINIMUM ZONE : 7 MINIMUM EASTING: 486000 MINIMUM NORTHING: 6720000
MAXIMUM ZONE : 8 MAXIMUM EASTING: 500000 MAXIMUM NORTHING: 6840000

SOURCE NO(S) :

OTHER SOURCES INVESTIGATED: This report contains centre line drilling data for various locations along the Proposed Alaska Highway Pipeline route.

PART B: STUDY DETAILS

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : 82 Sites, 82 Boreholes
SURVEY LEVEL : Exploration and Delineation
SURVEY PATTERN: Corridor
SURVEY SPACING: Random

PROGRAM LENGTH: September - November, 1976

SEASON : Fall

EQUIPMENT TYPE: Air/Wet Rotary
PENETRATION(m): 1.1;7.4;21.6
RESOLUTION : Good

SAMPLING/RECORDING

RATE : Continuous
QUALITY : Good
TYPE(S) : Grab:75mm CRREL;SPT;Shelby Tube
SIZE : 449;258;124;39;
TOTAL = 909 Samples

INTERPRETATION/TESTING LEVEL : Routine Classification
REPORT LEVEL : Geotechnical Data
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : Foothills Pipelines (Calgary)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

PART A: STUDY REFERENCE AND LOCATION

STUDY NUMBER : NAHC-005
SPONSOR : Foothills Pipelines (South Yukon) Ltd.

CONTACT : A.L. Edgeworth, P.Eng.
CONTRACTOR : Klohn Leonoff Consultants Ltd.
FILE NUMBER : AL0890

YEAR : 1977
REPORT TITLE : Final Report
Frost Heave
Test Drilling Program

DATA QUALITY : Good

LOCATION MAP : Seven Location Maps

NUMBER : 1-1 to 7-1
FORMAT : Topographic
SCALE : 1:50,000
DIGITIZ NO. : N/A
ARCHIVING : Foothills Pipelines (Calgary)

SITE PLAN : Seven Site Plans

NUMBER : 1-2 to 7-2
FORMAT : Photo Mosaic
SCALE : 1:10,000
DIGITIZ NO.: N/A
ARCHIVING : Foothills Pipelines (Calgary)

MINIMUM ZONE : 7 MINIMUM EASTING: 500450 MINIMUM NORTHING: 6892860
MAXIMUM ZONE : 7 MAXIMUM EASTING: 516470 MAXIMUM NORTHING: 6938600

SOURCE NO(S) : This report presents the results of a drilling program to locate a potential frost heave test site.

PART B: STUDY DETAILS

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : 7 Sites
SURVEY LEVEL : Exploration and Delineation
SURVEY PATTERN: Corridor
SURVEY SPACING: Random

PROGRAM LENGTH: September to November 1977

SEASON : Fall

EQUIPMENT TYPE: N/A
PENETRATION(m): N/A
RESOLUTION : N/A

SAMPLING/RECORDING

RATE : N/A
QUALITY : N/A
TYPE(S) : N/A
SIZE : N/A

INTERPRETATION/TESTING LEVEL : Routine Classification
REPORT LEVEL : Formal Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : Foothills Pipelines (Calgary)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

========== PART A: STUDY REFERENCE AND LOCATION ==========

STUDY NUMBER : NAHC-007
SPONSOR : Foothills Pipelines (South Yukon) Ltd.

CONTACT : John F. Nixon, P.Eng.
CONTRACTOR : Hardy Associates (1978) Ltd.
FILE NUMBER : K4323-006

YEAR : 1978
REPORT TITLE : Geotechnical Laboratory Data Report
Summer 1978 Drilling Program

DATA QUALITY : Good

LOCATION MAP : No Location Map Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO. : N/A
ARCHIVING : N/A

SITE PLAN : No Site Plan Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO.: N/A
ARCHIVING : N/A

MINIMUM ZONE : 7 MINIMUM EASTING: 500700 MINIMUM NORTHING: 6706700
MAXIMUM ZONE : 8 MAXIMUM EASTING: 584500 MAXIMUM NORTHING: 6937600

SOURCE NO(S) : This report presents the laboratory test results (including thaw strain results) for the 1978 field drilling program (NAHC-006). The laboratory test results are also included on the borehole logs in NAHC-006 "1978 Field Drilling Program".

========== PART B: STUDY DETAILS ==========

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : N/A
SURVEY LEVEL : N/A
SURVEY PATTERN: N/A
SURVEY SPACING: N/A

PROGRAM LENGTH: N/A

SEASON : Summer

EQUIPMENT TYPE: N/A
PENETRATION(m): N/A
RESOLUTION : N/A

SAMPLING/RECORDING

RATE : N/A
QUALITY : N/A
TYPE(S) : N/A
SIZE : N/A

INTERPRETATION/TESTING LEVEL : Specialized Laboratory Testing
REPORT LEVEL : Formal Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : Foothills Pipelines (Calgary)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

========== PART A: STUDY REFERENCE AND LOCATION ==========

STUDY NUMBER : NAHC-009
SPONSOR : Foothills Pipelines (South Yukon) Ltd.
CONTACT : Mr. W.A. Slusarchuk, P.Eng.
CONTRACTOR : Hardy Associates (1978) Ltd.
FILE NUMBER : K4781-001

YEAR : 1979
REPORT TITLE : Geotechnical Field Data Report Summer 1979 Drilling Report

DATA QUALITY : Good

LOCATION MAP : No Location Map Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO. : N/A
ARCHIVING : N/A

SITE PLAN : No Site Plan Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO.: N/A
ARCHIVING : N/A

MINIMUM ZONE : 7 MINIMUM EASTING: 496280 MINIMUM NORTHING: 6651200
MAXIMUM ZONE : 9 MAXIMUM EASTING: 506780 MAXIMUM NORTHING: 6918900
SOURCE NO(S) : 1790.1B;1821.4B;1857.4R;1865.0L;1871.3R;1895.0L;1936.0B;
OTHER SOURCES INVESTIGATED: This report contains centre line drilling data from various locations along the proposed Alaska Highway Pipeline route.

========== PART B: STUDY DETAILS ==========

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : 74 Sites, 74 Boreholes
SURVEY LEVEL : Exploration and Delineation
SURVEY PATTERN: Corridor
SURVEY SPACING: Random

PROGRAM LENGTH: July 17 - August 31, 1979
SEASON : Summer 1979

EQUIPMENT TYPE: CME 750;Mayhew 550 Heli-Drill
PENETRATION(m): 0.5;10.1;30.4
RESOLUTION : Good

SAMPLING/RECORDING

RATE : Continuous
QUALITY : Good
TYPE(S) : Grab;CRREL;SPT;Shelby Tube;Wash
SIZE : 102;275;361;11;18;
TOTAL = 767 Samples

INTERPRETATION/TESTING LEVEL : Routine Classification: Pipeline Design
REPORT LEVEL : Formal Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : Foothills Pipelines (Calgary)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

PART A: STUDY REFERENCE AND LOCATION

STUDY NUMBER : NAHC-011
SPONSOR : Foothills Pipelines (South Yukon) Ltd.
CONTACT : Mr. K.O. Stangl, P.Eng.
CONTRACTOR : EBA Engineering Cons. Ltd.
FILE NUMBER : 101-2800

YEAR : 1980
REPORT TITLE : Geotechnical Field Data Report 1980 Winter Drilling Report

DATA QUALITY : Very Good

LOCATION MAP : No Location Map Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO. : N/A
ARCHIVING : N/A

SITE PLAN : No Site Plan Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO.: N/A
ARCHIVING : N/A

MINIMUM ZONE : 7 MINIMUM EASTING: 403350 MINIMUM NORTHING: 6853060
MAXIMUM ZONE : 8 MAXIMUM EASTING: 500000 MAXIMUM NORTHING: 6940000

SOURCE NO(S) : 1749.5L;1752.2L;1766.4B;1857.4R;1865.0R;1882.5L;1890.9L;1897.0R;1910.3R;1936.0B;
OTHER SOURCES INVESTIGATED: This report cantains centre line drilling data from various locations along the Proposed Alaska Highway Pipeline route.

PART B: STUDY DETAILS

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : 138 Sites, 138 Holes
SURVEY LEVEL : Delineation
SURVEY PATTERN: Corridor
SURVEY SPACING: Random

PROGRAM LENGTH: March 9 - April 19, 1980
SEASON : Winter

EQUIPMENT TYPE: Sonic Drill; CME 750
PENETRATION(m): 3.7;9.6;29.0
RESOLUTION : Good

SAMPLING/RECORDING

RATE : Continuous
QUALITY : Good
TYPE(S) : Grab;100mm CRREL;75mm CRREL;SPT;Shelby Tube;75MM Split Spoon;
SIZE : 807;648;82;109;42;115;
TOTAL = 1803 Samples

INTERPRETATION/TESTING LEVEL : Routine Classification: Pipeline Design; Slope Stability
REPORT LEVEL : Formal Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : EBA Engineering (Edmonton)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

========== PART A: STUDY REFERENCE AND LOCATION ==========

STUDY NUMBER : NAHC-013
SPONSOR : Foothills Pipelines (South Yukon) Ltd.
CONTACT : G.N. Lem, P.Eng.
CONTRACTOR : Hardy Associates (1978) Ltd.
FILE NUMBER : K5327A08D

YEAR : 1980
REPORT TITLE : Geotechnical Field Data Report Summer 1980 Drilling Program

DATA QUALITY : Very Good

LOCATION MAP : No Location Map Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO. : N/A
ARCHIVING : N/A

SITE PLAN : No Site Plan Included

NUMBER : N/A
FORMAT : N/A
SCALE : 1:N/A
DIGITIZ NO.: N/A
ARCHIVING : N/A

MINIMUM ZONE : 7 MINIMUM EASTING: 338570 MINIMUM NORTHING: 6682610
MAXIMUM ZONE : 9 MAXIMUM EASTING: 500000 MAXIMUM NORTHING: 6940000

SOURCE NO(S) : 1821.4B;1882.5L;1890.9L;1895.0L;1902.2R;1917.5R;1936.0B;1960.6L;
OTHER SOURCES INVESTIGATED: This report contains centre line drilling data from various locations along the proposed Alaska Highway Pipeline route.

========== PART B: STUDY DETAILS ==========

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : 292 Boreholes
SURVEY LEVEL : Delineation
SURVEY PATTERN: Corridor
SURVEY SPACING: Random

PROGRAM LENGTH: August 27 - November 8, 1980
SEASON : Summer/Fall

EQUIPMENT TYPE: CME 750, Sonic, Heli-Sonic
PENETRATION(m): 2.0;9.7;18.3
RESOLUTION : Good

SAMPLING/RECORDING

RATE : Continuous
QUALITY : Good
TYPE(S) : Grab;100mm CRREL;SPT;Shelby Tube
SIZE : 107;419;354;47
Total = 1927

INTERPRETATION/TESTING LEVEL : Routine Classification: Pipeline design
REPORT LEVEL : Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : Foothills Pipelines (Calgary)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

PART A: STUDY REFERENCE AND LOCATION

STUDY NUMBER : NAHC-015
SPONSOR : Foothills Pipelines (South Yukon) Ltd.
CONTACT : Mr. J. R. Trimble, P.Eng (EBA)
CONTRACTOR : EBA Engineering Cons. Ltd.
FILE NUMBER : 302-0796

YEAR : 1981
REPORT TITLE : Alaska Highway Gas Pipeline Project- 1981 Borrow Invest.
DATA QUALITY : Very Good

LOCATION MAP : Numerous Location Maps

NUMBER : Figures 1 & 2 For Each Source
FORMAT : Topographic Map: Airphotos
SCALE : 1:50000: 1:24000
DIGITIZ NO. :
ARCHIVING : EBA Whitehorse

SITE PLAN : Numerous Site Plans

NUMBER : Figure 3 For Each Source
FORMAT : Line Drawings
SCALE : 1:10000
DIGITIZ NO.:
ARCHIVING : EBA Whitehorse

MINIMUM ZONE : 7 MINIMUM EASTING: 524400 MINIMUM NORTHING: 6798000
MAXIMUM ZONE : 7 MAXIMUM EASTING: 611000 MAXIMUM NORTHING: 6872500

SOURCE NO(S) : 1752.2L;1766.4L;1776.0B;1790.1B;1798.0R;1812.0R;1821.4B;1838.6R;1842.5R;1853.0R;1857.4R;1865.0R; 1868.9R;1871.3R;1879.0R;1897.0R;
OTHER SOURCES INVESTIGATED: 1749.0L;1752.2L;1776.9L;1777.8R;1798.3L;1822.2R;1822.3R;1827.3L;1830.0R; 1844.3R;1856.4R;1864.2R;1865.8R;1866.5R;1871.7R;1877.9R;1890.0R;1896.5R;

PART B: STUDY DETAILS

STUDY TYPE : Geotechnical
STUDY SCOPE : Many Sites
STUDY SIZE : 36 Sites; 135 Boreholes; 124 km
SURVEY LEVEL : Exploration and Delineation
SURVEY PATTERN: Corridor
SURVEY SPACING: Grid &/or Random

PROGRAM LENGTH: 3 Months
SEASON : Summer 1981

EQUIPMENT TYPE: Backhoe, Schramm and Sonic Drill Rig
PENETRATION(m): 0.7; 4.7; 11.9
RESOLUTION : Fair to Good

SAMPLING/RECORDING

RATE : Continuous
QUALITY : Good
TYPE(S) : Grab and Bulk Samples
SIZE : 646 Samples

INTERPRETATION/TESTING LEVEL : Routine Classification: Borrow Source Development Plans
REPORT LEVEL : Formal Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : EBA Engineering (Whitehorse/Calgary)

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
REPORT CATALOGUE DATA SHEET

========== PART A: STUDY REFERENCE AND LOCATION ==========

STUDY NUMBER : NAHC-017
SPONSOR : DIAND
YEAR : 1982
REPORT TITLE : Geotechnical Report: Gravel Borrow Pit for Burwash Landing and Destruction Bay, Yukon

CONTACT : Mr. I. Jones, MSc. (HARDY)
CONTRACTOR : Hardy Associates (1978) Ltd.
FILE NUMBER : CG/0047
DATA QUALITY : Very Good

LOCATION MAP : One General Location Map
NUMBER : Figure 1
FORMAT : Photocopy
SCALE : 1:250000
DIGITIZ NO. :
ARCHIVING : DIAND Land Use Branch

SITE PLAN : Three Site Plans
NUMBER : C1, C2, and C3
FORMAT : Orthophotographic
SCALE : 1:1000
DIGITIZ NO.:
ARCHIVING : DIAND Land Use Branch

MINIMUM ZONE : 7 MINIMUM EASTING: 606500 MINIMUM NORTHING: 6793500
MAXIMUM ZONE : 7 MAXIMUM EASTING: 615000 MAXIMUM NORTHING: 6794500
SOURCE NO(S) : 1748.8R;1750.0B;1763.1L;

========== PART B: STUDY DETAILS ==========

STUDY TYPE : Geotechnical
STUDY SCOPE : Regional
STUDY SIZE : 3 Sites; 45 Boreholes; 25 km
SURVEY LEVEL : Reconnaissance and Delineation
SURVEY PATTERN: Grid and/or Random
SURVEY SPACING: 200 to 500 m Grid

PROGRAM LENGTH: 3 Days
SEASON : Winter 1982

EQUIPMENT TYPE: Rotary Drill Rig
PENETRATION(m): 1.0; 5.3; 6.0
RESOLUTION : Poor

SAMPLING/RECORDING

RATE : Intermittent
QUALITY : Poor
TYPE(S) : Grab Samples
SIZE : 81 Samples

INTERPRETATION/TESTING LEVEL : Routine Classification: Development Plans For 3 Sources
REPORT LEVEL : Formal Geotechnical
REPORT DISTRIBUTION : Sponsor/Contractor
DATA ARCHIVING : DIAND Land Use Branch, Whitehorse

EBA PROJECT NUMBER : 0201-4981

APPENDIX C

DATA DICTIONARY--SOURCE CATALOGUE

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE

DATA DICTIONARY --- SOURCE CATALOGUE

PART A: LOCATION AND STATUS

AA - SOURCE NUMBER:

Each source has been assigned a unique seven-character alphanumeric source number, which serves as a link to other databases. The number consists of six digits representing the kilometre post (to tenths) along the Alaska Highway where the source is located, and an alphabetic suffix (L-Left; R-Right; B-Both) to denote source location relative to the highway centreline while facing the direction of increasing kilometre posts. (e.g. 1798.0B).

AB - STUDY NUMBER:

A cross reference field showing the Report Number(s) (in the Report Catalogue) in which the source is described, and from which data was obtained to prepare the Source Catalogue Data Sheet.

AC - NTS MAP REFERENCE:

The National Topographic Series (NTS) 1:50,000 scale map reference number of the map containing the majority of the outlined deposit. (e.g. 115 k/7)

AD - MAP DIGITIZER NUMBER:

A unique five digit identifier number, to be assigned by INAC, which identifies a data set of points, lines, or polygons to be digitized from the location plan. This number links the granular deposit database to INAC's spatial database system.

AE - LOCATION MAP/PLAN SCALE:

The scale, expressed in terms of the representative fraction (e.g. 1:250,000) of any small scale accompanying regional map which indicates the location of separate study/borrow sites. The denominator only of the representative fraction is given since by definition the numerator is unity. (e.g. 250000)

The next seven fields (AF-AL) provide location details for the Source, including Universal Transverse Mercator (UTM) co-ordinates, and highway kilometre posts. In each case, the co-ordinates are normally determined for the approximate centre of the source.

AF - UTM ZONE/EASTING:

The UTM zone in which the deposit occurs, and the north-south oriented UTM grid line passing through the centre of the deposit. (e.g. 7-381987)

AG - LOCATION

The descriptive location of the source relative to a geographic feature. (e.g. 6 km N of White River).

AH - NORTHING:

The east-west oriented UTM grid line passing through the centre of the deposit. (e.g. 7548335)

AI - LOCAL NAME(S):

Many sources are known locally by one or more names, rather than the designated source number. Although these names may vary over time or be duplicated between sources, they should be recorded as is. (e.g. Burwash Creek)

AJ - CORRIDOR NUMBER AND NAME:

The name of the transportation route within whose corridor the deposit occurs. (e.g. Robert Campbell Highway; Alaska Highway)

AK - KILOMETRE-POST:

The kilometre-post (KP) of the point along the transportation corridor at which access is relatively direct to the deposit, or the most nearly adjacent point on the corridor to the location of the deposit.

AL - OFFSET: DISTANCE AND DIRECTION:

The distance in metres from the corridor centreline to the centre of the deposit. The direction (left or right) is determined when facing in the direction of increasing kilometre-posts. (e.g. 350 left)

AM - SOURCE ACCESS:

A short description of the most practical route to the source.

AN - DISTANCE ACCESS:

The distance in metres along the above described access route from the corridor to the deposit. Ideally, this should be the same as the offset distance; however, where this is not possible due to steep slopes or rivers, the access distance can vary significantly from offset.

AO - CONDITION:

A description of the type and condition of the access route, (e.g. seismic line; undeveloped; winter road; ice road, developed)

AP - AREA:

The total estimated areal extent, in hectares, of potentially usable granular resources which comprise the deposit. (e.g. 1; 10; 100)

AQ - SITE PLAN SCALE:

The scale, expressed in terms of the representative fraction (e.g. 1:10,000) of any larger scale accompanying site plan which indicates the location of boreholes/ testpits/grab samples or geophysical survey grids. The denominator only of the representative fraction is given since the numerator is consistently "1" (e.g. 10000)

AR - PLAN DIGITIZER NUMBER(S):

A unique five digit identifier number or series of numbers, to be assigned by INAC, which identifies a data set of points, lines, or polygons to be digitized from the site plan. This number links the granular deposit database to INAC's spatial database system.

AS - LAND TENURE:

The legal status of the land upon which the deposit is located. (e.g. Private; Territorial)

AT - STATUS:

The current status of the deposit in terms of development of granular resources. (e.g. active; inactive; abandoned; depleted; undeveloped; stripped; unproven)

AU - PAST USE:

A summary of any known previous source development or exploitation activity in terms of type and amount of material removed and use of material. (e.g. borrow)

AV - STOCKPILE TYPE

A qualitative description of the processed materials on site. (e.g. 38 mm screened gravel)

AW - PERFORMANCE RATING:

A summary of any known assessment of the performance of previously used material from the source. (e.g. poor, fair, good)

AX - QUANTITY

An estimate of quantity stockpiled a site, at the time of the last record update.

PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION

BB - INVESTIGATION LEVEL:

The greatest level of detail of previous site investigation work at the subject deposit (e.g. airphoto interpretation; reconnaissance; exploratory drilling; delineation drilling; production drilling).

BC - LAST INVEST DATE:

The year in which the most recent site investigation work was completed.

BD - GEOPHYSICAL DATA:

The type and length of any geophysical surveys completed at the deposit.
TYPE: LINE M:(e.g. EM-31 : 1550 m)

BE - TEST HOLE DENSITY

The number of boreholes plus the number of test pits divided by the estimated source area. (Field AP).

SUBSURFACE DATA:

The number, range and average depth of subsurface penetration of the various site investigation methods used to define the source materials.

BF - BOREHOLES: NUMBER:

The total number of boreholes (augerings, borings, boreholes, etc.) completed and logged within, or immediately adjacent to the deposit, which provide subsurface information defining the type, extent and quality of granular materials.

BG - TESTPITS: NUMBER:

The total number of hand- or equipment-excavated testpits or trenches completed and logged within, or immediately adjacent to the deposit, which provide subsurface information defining the type, extent and quality of granular materials.

BH - EXPOSURES: NUMBER:

The total number of natural or man-made exposures or outcrops (e.g. on steep slopes, stream banks; or exposed pit faces, cutbanks), within, or immediately adjacent to the deposit, which have been logged to provide subsurface information defining the type, extent and quality of granular materials.

BI - BOREHOLES: DEPTH:

A listing of the minimum, average and maximum depth of penetration of the total collection of boreholes for the deposit, in tenths of metres. (e.g. 3.1-5.6-10.3)

BJ - TESTPITS: DEPTH:

A listing of the minimum, average and maximum depth of penetration of the total collection of testpits for the deposit, in tenths of metres. (e.g. 0.5-2.6-5.3)

BK - EXPOSURES: DEPTH:

A listing of the minimum, average and maximum depth of subsurface materials exposed in the total collection of exposures for the deposit, in tenths of metres. (e.g. 01.5-06.1-15.0)

BL - DATA QUALITY

A subjective description of the usefulness of the data with respect to the preparation of the source catalogue.

SOURCE DESCRIPTION:

A brief summary of the physical setting of the deposit which will aid in the analysis and understanding of the type, extent, quality and uniformity of the available granular materials and the suitability of the deposit for development and exploitation.

BM - TOPOGRAPHY:

A general description of the collective physical features, relief and contour of the area. (e.g. flat, gently rolling, rolling, hummocky, undulating, ridged, dissected, plateau, mountainous)

BN - SLOPE:

A general description of the slopes on and immediately adjacent to the deposit in terms of type (e.g. simple; compound; complex), degree (e.g. flat; gentle; moderate; steep; precipitous) and direction (e.g. GENTLE/NW).

BO - AREA DRAINAGE:

A general description of the general direction and apparent condition (e.g. well; moderate; poor; saturated; flooded) of surface and subsurface drainage at the site. (e.g. SSE- moderate, flooded to S)

BP - SOURCE VEGETATION:

A general description of the most significant features of the vegetation cover on and immediately adjacent to the deposit which may provide an indication of the type of materials within the deposit, the presence or absence of permafrost or wet conditions, or potential site development or restoration difficulties. Vegetation should be described, as appropriate, in terms of age, size or complexity (e.g. mixed; sapling; mature), density (e.g. nil; sparse; moderate; dense) and type (e.g. poplar; black/white spruce; jackpine; willow) for each of tree cover, understorey and ground cover. (e.g. mature mixed poplar and white spruce to 15 m, few tamarack /sparse poplar saplings / dense bearberry, sparse sphagnum and sedges)

BQ - PERMAFROST FEATURES:

A general description of surface and/or subsurface features which demonstrate or indicate the presence of permafrost conditions within or adjacent to the deposit. (e.g. Vx, Vr)

BR - ACTIVE LAYER THICKNESS:

A listing of the minimum, average and maximum measured thickness of the seasonally thawed and frozen active layer within and adjacent to the deposit, determined from the boreholes, testpits, probings and exposures which encountered apparently perennially frozen materials, in tenths of metres. (e.g. 0.2-1.0-1.8)

BS - SITE DESCRIPTION DATE:

The date on which the site description was completed, or where more than one site visit was involved, the date upon which the maximum active layer thickness was measured, in the format: mm/dd/yy (e.g. 09/04/80).

BT - GENERIC ORIGIN:

The environment of deposition or geologic process believed to be responsible for the formation of the subject surficial feature or deposit comprised of granular materials. (e.g. alluvial; fluvial; glacial; glaciofluvial; glaciomarine; lacustrine)

BU - LANDFORM:

The type of surficial feature comprising the subject granular materials, within which geologic conditions are interpreted to be relatively uniform or are variable within limits characteristic of the type of feature. (e.g. delta; esker; fan; kame; outwash plain; terrace)

SOURCE STRATIGRAPHY:

A general description of the type, range and average thickness of the main surficial materials units comprising the granular source, based on subsurface information from only those boreholes, testpits and exposures which encountered granular materials.

BV - GRANULAR TYPE:

A brief description of the type of granular materials encountered within the area delineated as a granular source. (e.g. GRAVEL AND SAND, well-graded; SAND - gravelly, some silt)

BW - OVERBURDEN TYPE:

A brief description of the type of overburden materials present over the area containing granular materials. (e.g. PEAT - over silt)

BX - GRANULAR THICKNESS:

A listing of the minimum, average and maximum thickness of granular materials over the deposit, determined from the boreholes, testpits and exposures in the area delineated as a granular source, in tenths of metres. (e.g. 1.0-5.2-12.8)

BY - OVERBURDEN THICKNESS:

A listing of the minimum, average and maximum thickness of overburden materials over the deposit, determined from the boreholes, testpits and exposures which encountered granular materials, in tenths of metres. (e.g. 0.0-1.2-2.8)

BZ - UNDERBURDEN:

A brief description of the type of materials underlying the granular materials in the source area. (e.g. CLAY (Till) - wet)

B1 - DEVELOPMENT CONSTRAINTS:

A general indication of any potential constraints to short or long term development of the source, expressed in terms of the type of constraint, (e.g. access; materials; drainage; permafrost; environmental; socioeconomic) with details, as appropriate, on the nature and impact of the constraint.

B2 - DEVELOPMENT POTENTIAL:

A summary comment, expressed in qualitative terms, of the general suitability of the deposit for development. The potential is based essentially on the anticipated overall extent and quality of the available granular materials, but also considers the level of detail of existing site investigation, the presence, extent and type of overburden, drainage and permafrost conditions, other surface or sub-surface characteristics and general accessibility. (e.g. unknown; unsuitable; poor; fair; good; excellent)

PART C: TEST RESULTS AND MATERIAL QUANTITY

TEST RESULTS:

A summary of the cumulative results of laboratory testing, completed in accordance with ASTM or CSA standard test procedures, of samples from the deposit in terms of test name, number of samples tested, and ranges and averages of test results.

CC - UNIFIED SOIL CLASSIFICATION - NUMBER:

The number of samples classified under the Unified Soil Classification (USC) system, in accordance with ASTM standard D 2487. (e.g. 121)

CD - MOISTURE CONTENT(%) - NUMBER:

The number of samples for which soil Moisture Content (MC%) has been determined, in accordance with ASTM standard D2216. (e.g. 102)

CE - UNIFIED SOIL CLASSIFICATION - CLASS:

The average USC class of material types sampled from the deposit. (e.g. SM/SP)

CF - MOISTURE(%): RESULTS:

The minimum, average and maximum soil Moisture Content, based on percentage of dry soil weight, for the collection of samples tested. (e.g. 03-12-021)

CG - SIZE ANALYSIS: NUMBER:

The number of samples for which particle-size analysis testing has been completed, in accordance with ASTM standards D 421 and D 422. (e.g. 111)

CH - GRAVEL(%):

The minimum, average and maximum percentage of gravel-sized material (4.76 mm - 75 mm dia.) is determined by particle-size analysis testing. (e.g. 05-45-85)

CI - SAND(%):

The minimum, average and maximum percentage of sand-sized material (0.074 mm - 4.76 mm dia.) is determined by particle-size analysis testing. (e.g. 25-37-52)

CJ - FINES(%):

The minimum, average and maximum percentage of silt- and clay-sized material (under 0.074 mm dia.) is determined by particle-size analysis testing. (e.g. 02-07-12)

CK - OVERSIZE(%):

The minimum, average and maximum percentage of oversized material; (over 75 mm dia.), in pit run material from the source, as determined by field estimates, field sieving, or laboratory testing. (e.g. 00-10-35)

CL - D-50 (um)

The minimum, average and maximum Median Diameter (D-50), in micrometres (um) of samples subjected to particle-size analysis testing. (e.g. 00210-01200-03600)

CM - PETROGRAPHIC ANALYSIS - NO. OF TESTS:

The number of samples for which Petrographic Analysis testing has been completed to determine the Petrographic Number (PN) of samples from the deposit, in accordance with CSA standard A23.2, Appendix B. (e.g. 01, 10)

CN - PETROGRAPHIC NUMBER - RESULTS:

The range and average Petrographic Number (PN) for the deposit, based on petrographic analysis, for the above collection of samples, presented in the format: minimum-average-maximum. (e.g. 102-114-123)

CO - OTHER TESTS:

A listing of up to eight other types of tests conducted on samples from the deposit, the number of samples tested, and the average values of the test results, presented in the format: test (11 digits)-number (2 digits)-average results (4 digits). Typical entries are described in more detail below.

ABSORPTION(%):

The number and average of all results, expressed in terms of weight percentage, of all Absorption testing on samples from the deposit, in accordance with CSA standard A23.2-12A. (e.g. Absorption(%)-12-01.1)

CLEANNESS(C/F):

The number and average of all results of Cleanness of Aggregate testing on samples of coarse or fine aggregate from the deposit, in accordance with California Test Method 224. (e.g. Cleanness(C)-04-50.5)

DURAB_INDEX:

The number and average of all results of durability index testing on samples from the deposit. (e.g. Durab_Index-03-65.3)

LA_ABRASION:

The number and average of all results, expressed in percentage weight loss, of Los Angeles (LA) Abrasion Testing on samples from the deposit, in accordance with CSA A23.2-16A. (e.g. LA Abrasion-03-26.3)

ORGAN_PLATE:

The number and average of all results, expressed in terms of reference plate number, of Organic Plate testing on samples from the deposit. (e.g. Organ Plate-05-03.2)

ORG_CONTENT:

The number and average of all results, expressed in terms of percentage weight loss, of Organic Content testing, in accordance with the Alaskan test method. (e.g. Org Content-12-00.5)

SULPH_SD_MG/NA:

The number and average of all results, expressed in percentage weight loss, of all Sulphate Soundness (Magnesium or Sodium, Mg/Na) testing on samples from the deposit, in accordance with CSA standard A23.2-9A. (e.g. Sulph Sd Na-02-03.2)

REACT_PR/MB_3M/6M/12/18:

The number and average of all results, expressed in terms of percentage expansion, of alkali-aggregate reactivity testing on concrete prisms, or mortar bars, after three, six, twelve or eighteen months, in accordance with CSA A23.2-14A-M77 or ASTM C-227, respectively.
(e.g. React_Mb_3M-02-.085)

REL_DENSITY:

The number and average of all results, expressed in terms of saturated surface dry conditions, of all Relative Density testing on samples from the deposit, in accordance with CSA standard A23.2-12A. (e.g. Rel Density-12-2.62)

MATERIAL QUANTITY (All in cubic metres):

Calculated and/or estimated volumes of granular material contained in the deposit, expressed in terms of DIAND-designated material classes, and in terms of confidence level of the quantities determined in accordance with the following definitions:

CLASS:

DIAND has developed a simple classification system for granular resources, presented in the draft Territorial and Public Lands Pits and Quarries Regulations, which considers both the Unified Soil Classification of materials, and their most suitable end use. The quantity estimates should be given, where possible, in terms of each of the five material classes, as defined in each class field (see CP to CT, below), and in terms of the total (see CU) for the deposit.

PROVEN VOLUME:

Material in each class whose occurrence, distribution, thickness and quality is supported with a high degree of confidence by ground truth such as geotechnical drilling, test pitting, and/or exposed stratigraphic sections. The thickness of material encountered in a borehole is usually extrapolated to a radius not exceeding 50 metres around the hole, with adjustments applied by assessing landform type and anticipated or known deposit homogeneity.

PROBABLE VOLUME:

Material in each class whose existence and extent is inferred on the basis of several types of direct and indirect evidence, including topography, landform characteristics, airphoto interpretation, extrapolation of stratigraphy, geophysical data and/or limited sampling. Additional investigation is needed to determine a reliable material volume. The volume is estimated by projecting known parameters (typically those of proven resources) over the entire deposit, with adustments for landform type, anticipated homogeneity and other site characteristics such as ice content and drainage.

PROSPECTIVE VOLUME:

Material in each class whose existence is merely speculated on the basis of limited indirect evidence, such as airphoto interpretation and/or general geological considerations. The volume is typically estimated for the maximum areal extent of the deposit and the estimated relief of the geomorphic feature, with adjustments for anticipated site and deposit characteristics.

All material quantities in the various classes of the North Alaska Highway database are presented as PROBABLE VOLUME.

CP - CLASS 1:

The calculated and/or estimated volumes of excellent quality granular material, consisting of clean, well-graded, structurally sound sands and gravels suitable for use as high quality surfacing materials, or as high quality asphalt or concrete aggregate, with a minimum of processing.

CQ - CLASS 2:

The calculated and/or estimated volumes of good quality granular material, consisting of well-graded sands and gravels with varying, limited quantities of silt (fines), and suitable for use as good quality base and surface course aggregates, embankment or structure-supporting fill. May be suitable for production of concrete aggregate with extensive processing, except where deleterious material is present.

CR - CLASS 3:

The calculated and/or estimated volumes of fair quality granular material, consisting of generally poorly-graded sands and gravels with or without substantial quantities of silt (fines), and suitable for fair quality general fill (subbase, base, embankment fill) for roads, flexible foundation pads, or lay-down yards.

CS - CLASS 4:

The calculated and/or estimated volumes of poor quality granular material, consisting of generally poorly-graded, silty fine sands with minor gravels, with or without weak particles and deleterious materials, and suitable for marginal general (non-structural) fill.

CT - CLASS 5:

The calculated and/or estimated volumes of fair to excellent quality bedrock, felsenmeer, talus or similar extremely coarse granular material, suitable for quarrying and processing to produce potentially excellent construction materials ranging from general fill, to concrete aggregate, building stone, and erosion control materials such as rip rap or armour stone.

CU - TOTAL VOLUME:

The calculated and/or estimated volume of all of the above classes of granular materials potentially available in the deposit.

CV - TOTAL RECOVERABLE:

The calculated or estimated volume of useable granular material from the deposit, based on the maximum areal extent of useable material in the deposit, and the anticipated maximum recoverable thickness, as determined from test pit and borehole information or inferred from assessment of deposit and site characteristics.

CW - ANNUAL RECOVERABLE:

The calculated or estimated volume of material which is likely to be recovered in a single extraction season, based on the maximum areal extent of useable material in the deposit, and the anticipated maximum thickness of annual thawing of surficial materials, as determined from test pit and borehole information or inferred from assessment of deposit and site characteristics.

CX - RECORD UPDATED BY:

The name of the contractor or person who originally compiled the database and a listing of contractors or persons who have subsequently undertaken significant updating of the database contents.

CY - LAST UPDATE:

The date of the last update of the information presented for the subject granular materials deposit, presented in the format: mm/dd/yy
(e.g. 04/25/89)

APPENDIX D

SOURCE CATALOGUE

30 RECORDS

dBASE III+ FILE: NASOURCE.DBF

REPORT OUTLINE (R & R): NASOURCE.RP1

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1748.8R STUDY NO. : NAHC-017
NTS MAP REFERENCE : 115G/7 DIGITIZ NO: MAP SCALE : 1:250000
UTM ZONE-EASTING : 7-614900 LOCATION : 5.8 km N of Destr. Bay
UTM NORTHING : 6796640
LOCAL NAME(S) : Scrap Metal Dump
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1748.8 OFFSET(m) : 150 Right

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 170 CONDITION : Developed
AREA (ha) : 0.8 SITE SCALE: 1:1000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : None
PERFORMANCE RATING : Fair - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Explaration & delineation LAST INVEST DATE : 1982
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 19
BOREHOLES - NUMBER : 15 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 2.6-5.8-6.0 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Very good
SOURCE TOPOGRAPHY : Undulating SLOPE: Gentle/SE
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Spruce
PERMAFROST FEATURES: Unknown
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/82
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Outwash
GRANULAR - TYPE : GRAVEL - sandy, silty OVERBURDEN-TYPE : PEAT;SILT;CLAY
- THICKNESS (m) : 0.0-1.9-5.8 - THICKNESS (m): 0.2-3.9-6.0
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Scrap Metal Dump Site, Material silty
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 5 MOISTURE CONTENT-NUMBER : 9
CLASS : GM -RESULTS: 3-5-8
SIZE ANALYSIS-NO. : 5 GRAVEL (%) : 38-56-79 SAND (%): 10-23-32 FINES (%): 11-21-31
- OVERSIZE (%) : Unknown D-50 (um) : 01500-07600-20000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 11,000 CLASS 3: 11,000
ANNUAL RECOVERABLE : 5,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 11,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/21/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1750.08 STUDY NO. : NAHC-008,010,011,015,017
NTS MAP REFERENCE : 115G/7 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-613700 LOCATION : 9.7 km N of Burwash Ldng.
UTM NORTHING : 6798000
LOCAL NAME(S) : Lewis Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1750.0 OFFSET(m) : 70 Right, 1700 Left

SOURCE ACCESS : Existing pit access; undisturbed
ACCESS DISTANCE (m): 15 CONDITION : Developed: Undeveloped
AREA (ha) : 57.7 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active; Non-active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : Pit Run (not screened); none
PERFORMANCE RATING : Good; NA - QUANTITY : 10,000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1988
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.4
BOREHOLES - NUMBER : 17 TEST PITS - NO. : 5 EXPOSURES - NO. : 0
- DEPTH (m) : 6.0-8.6-18.3 - DEPTH (m): 3.0-3.2-3.4 - DEPTH (m) : NA
DATA QUALITY : Excellent
SOURCE TOPOGRAPHY : Hummocky SLOPE: Medium/NE
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Black Spruce,treeless meadow
PERMAFROST FEATURES: Vx,Nbn,Nbe
ACTIVE LAYER (m) : 0.0-1.5-3.3 DESCRIPT. DATE : 06/12/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan,Kame Terrace
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : PEAT;ORGANIC SILT
- THICKNESS (m) : 0.0-5.4-17.0 - THICKNESS (m): 0.0-0.9-10.
UNDERBURDEN : SILT;SAND-SILT
DEVELOP. CONSTRAINT: P.W.C. developing part of area
DEVELOP. POTENTIAL : Very good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 19 MOISTURE CONTENT-NUMBER : 54
CLASS : GM/GW -RESULTS: 2-4-10
SIZE ANALYSIS-NO. : 19 GRAVEL (%) : 44-60-95 SAND (%): 4-34-47 FINES (%): 1-6-26
- OVERSIZE (%) : 0-12-20 D-50 (um) : 02500-07950-20000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 2 RESULTS: 102-UN-102

OTHER TESTS (see the DATA DICTIONARY) : LA_Abrasion-01-13.4;SULPH_SD_MG-01-0.33

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 370,000
CLASS 2: 22,300
TOTAL RECOVERABLE : 5,881,500 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 392,300

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/27/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1752.2B STUDY NO. : NAHC-008,010,011,015
NTS MAP REFERENCE : 115G/7 DIGITIZ NO: MAP SCALE : 1:50,000
UTM ZONE-EASTING : 7-610500 LOCATION : 7.4 km S of Burwash Ldng.
UTM NORTHING : 6798800
LOCAL NAME(S) : Halfbreed Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1752.2 OFFSET(m) : 100 Right;1650 Left

SOURCE ACCESS : Existing Road; trail
ACCESS DISTANCE (m): 1650 CONDITION : Developed; undeveloped
AREA (ha) : 55 SITE SCALE: 1:10,000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active; Non-active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : Pit run (not screened): None
PERFORMANCE RATING : Good; NA - QUANTITY : 10,000 cu m; NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.3
BOREHOLES - NUMBER : 7 TEST PITS - NO. : 11 EXPOSURES - NO. : 0
- DEPTH (m) : 8.8-10.1-11.6 - DEPTH (m): 1.5-3.4-4.5 - DEPTH (m) : NA
DATA QUALITY : Very Good
SOURCE TOPOGRAPHY : Hummocky SLOPE: Gently /West
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Spruce and Poplar and shrubs
PERMAFROST FEATURES: Vx,Nbn
ACTIVE LAYER (m) : 0.0-0.5-0.8 DESCRIPT. DATE : 06/13/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL AND SAND - some silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-3.9-10.5 - THICKNESS (m): 0.0-1.2-3.5
UNDERBURDEN : SILT;CLAY
DEVELOP. CONSTRAINT: Flooding may occur during spring runoff
DEVELOP. POTENTIAL : Very Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 14 MOISTURE CONTENT-NUMBER : 25
CLASS : GM/GW -RESULTS: 1-5-15
SIZE ANALYSIS-NO. : 14 GRAVEL (%) : 24-53-66 SAND (%): 29-41-59 FINES (%): 2-6-17
- OVERSIZE (%) : 0-24-35 D-50 (um) : 00450-06020-10000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 354,000
TOTAL RECOVERABLE : 3,400,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 354,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/21/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1763.1L STUDY NO. : NAHC-017
NTS MAP REFERENCE : 115G/6 DIGITIZ NO: MAP SCALE : 1:250000
UTM ZONE-EASTING : 7-604360 LOCATION : 1.6 km N B.Ldng. Airstrip
UTM NORTHING : 6805470
LOCAL NAME(S) : MP 1095.6
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1763.1 OFFSET(m) : 100 Left

SOURCE ACCESS : Existing Pit Access
ACCESS DISTANCE (m): 20 CONDITION : Developed
AREA (ha) : 13.5 SITE SCALE: 1:1000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : Pit run (not screened)
PERFORMANCE RATING : Good - QUANTITY : 1000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1982
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 1.5
BOREHOLES - NUMBER : 20 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 1.0-4.6-6.0 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Very good
SOURCE TOPOGRAPHY : Gently sloping SLOPE: Gentle
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Spruce; waste piles
PERMAFROST FEATURES: None
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/01
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL - some sand, trace silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-4.0-6.0 - THICKNESS (m): 0.0-0.6-3.8
UNDERBURDEN : Unknown

DEVELOP. CONSTRAINT: None
DEVELOP. POTENTIAL : Very Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 2 MOISTURE CONTENT-NUMBER : 31
CLASS : GP/GW -RESULTS: 1-2-8
SIZE ANALYSIS-NO. : 7 GRAVEL (%) : 58-80-96 SAND (%): 3-17-36 FINES (%): 1-3-7
- OVERSIZE (%) : Unknown D-50 (um) : 08600-14500-19500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 3 RESULTS: 108-112-116

OTHER TESTS (see the DATA DICTIONARY) : LA_Abrasion-03-19.3;SULPH_SD_MA-03-1.93

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 90,000
CLASS 2: Unknown
TOTAL RECOVERABLE : 200,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 90,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/20/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1766.4L STUDY NO. : NAHC-006,011,015,018
NTS MAP REFERENCE : 115G/6 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-600000 LOCATION : 2.0 km S Duke Rv. Bridge
UTM NORTHING : 6805500
LOCAL NAME(S) : Duke River
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1766.4 OFFSET(m) : 150 Left

SOURCE ACCESS : Along old pipeline right of way
ACCESS DISTANCE (m): 50 CONDITION : Undeveloped
AREA (ha) : 90 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : None
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1988
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 6 TEST PITS - NO. : 5 EXPOSURES - NO. : 0
- DEPTH (m) : 4.0-8.2-10.0 - DEPTH (m): 1.4-2.6-3.6 - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Gently Sloping SLOPE: Gentle/Duke River
AREA DRAINAGE : Well Drained
SOURCE VEGETATION : Partially stripped of overburden; dense Black Spruce
PERMAFROST FEATURES: Vx,Vs,Vr,Vc,Nbn
ACTIVE LAYER (m) : 0.0-2.4-9.2 DESCRIPT. DATE : 08/17/78
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL AND SAND - trace silt OVERBURDEN-TYPE : SILT;PEAT;ASH;ORGANIC SAND
- THICKNESS (m) : 1.0-5.2-10.0 - THICKNESS (m): 0.0-0.5-1.4
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: P.W.C. starting to develop new pit
DEVELOP. POTENTIAL : Excellent

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 13 MOISTURE CONTENT-NUMBER : 35
CLASS : GP/GM -RESULTS: 1-5-12
SIZE ANALYSIS-NO. : 13 GRAVEL (%) : 41-55-68 SAND (%): 28-38-48 FINES (%): 3-7-17
- OVERSIZE (%) : 0-16-25 D-50 (um) : 00400-06400-12500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 400,000
CLASS 2: Unknown
TOTAL RECOVERABLE : 8,100,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 400,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/29/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1772.5R STUDY NO. : NAHC-002,004
NTS MAP REFERENCE : 115G/G DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-597655 LOCATION : 4.1 km N Duke Rv. Bridge
UTM NORTHING : 6808920
LOCAL NAME(S) : MP 1101.3
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1772.5 OFFSET(m) : 500 Right

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 450 CONDITION : Developed
AREA (ha) : 20.9 SITE SCALE: 1:300 Ft DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : None
PERFORMANCE RATING : Good - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1972
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.7
BOREHOLES - NUMBER : 14 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 1.8-3.0-4.6 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Gently sloping SLOPE: Gentle/South
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Spruce
PERMAFROST FEATURES: Unknown
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/77
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : SAND - silty, some gravel OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.8-2.3-4.6 - THICKNESS (m): 0.0-0.7-1.5
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Silt content
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 8 MOISTURE CONTENT-NUMBER : 0
CLASS : SM -RESULTS: NA
SIZE ANALYSIS-NO. : 5 GRAVEL (%) : 4-20-52 SAND (%): 25-48-62 FINES (%): 17-32-47
- OVERSIZE (%) : Unknown- D-50 (um) : 00200-02450-09500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 50,000 CLASS 3: 50,000
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 50,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/24/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1776.0B STUDY NO. : NAHC-014,015,016,018
NTS MAP REFERENCE : 115G/6 DIGITIZ NO: MAP SCALE : 1:24000
UTM ZONE-EASTING : 7-594000 LOCATION : 0.3 km N Burwash Creek
UTM NORTHING : 6812600
LOCAL NAME(S) : Burwash Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1776.0 OFFSET(m) : 200 Right; 400 Left

SOURCE ACCESS : Existing pit access; Trail
ACCESS DISTANCE (m): 50 CONDITION : Developed; Undeveloped
AREA (ha) : 58.4 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial/Private STATUS : Active
PAST USE - SOURCE : Borrow; Mining claims STOCKPILE - TYPE : 19mm Crushed Gravel; NA
PERFORMANCE RATING : Very Good; NA - QUANTITY : 8000 cu m; None

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1988
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.5
BOREHOLES - NUMBER : 14 TEST PITS - NO. : 13 EXPOSURES - NO. : 0
- DEPTH (m) : 1.0-7.7-10.0 - DEPTH (m): 1.1-2.3-3.7 - DEPTH (m) : NA
DATA QUALITY : Excellent
SOURCE TOPOGRAPHY : Hummocky SLOPE: Medium
AREA DRAINAGE : Well drained with some ponding
SOURCE VEGETATION : Partially stripped of overburden; moderately dense to dense Spruce
PERMAFROST FEATURES: Nf,Nbe,Vc
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Outwash;Fan
GRANULAR - TYPE : GRAVEL AND SAND - trace silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-4.1-9.7 - THICKNESS (m): 0.0-0.9-5.6
UNDERBURDEN : Unknown

DEVELOP. CONSTRAINT: Private mining claims
DEVELOP. POTENTIAL : Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 9 MOISTURE CONTENT-NUMBER : 45
CLASS : GW/GP -RESULTS: 2-5-12
SIZE ANALYSIS-NO. : 9 GRAVEL (%) : 33-58-66 SAND (%): 29-38-55 FINES (%): 1-4-12
- OVERSIZE (%) : 0-9-25 D-50 (um) : 03000-08600-11000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 283,000
CLASS 2: Unknown
TOTAL RECOVERABLE : 4,560,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 283,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/20/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1788.6B STUDY NO. : NAHC-009,010,015
NTS MAP REFERENCE : 115G/11 DIGITIZ NO: MAP SCALE : 1:24000
UTM ZONE-EASTING : 7-58920K LOCATION : 12.3 km N Burwash Creek
UTM NORTHING : 6821500
LOCAL NAME(S) : Quill Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1788.6 OFFSET(m) : 50 Right, 250 Left

SOURCE ACCESS : Existing trails
ACCESS DISTANCE (m): 0 CONDITION : Undeveloped
AREA (ha) : 5.1 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : None
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 1.7
BOREHOLES - NUMBER : 4 TEST PITS - NO. : 5 EXPOSURES - NO. : 0
- DEPTH (m) : 7.2-9.0-10.2 - DEPTH (m): 1.3-3.1-4.2 - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Flat SLOPE: Flat
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : meadow, dense Poplar, Alder, some Willow
PERMAFROST FEATURES: Vc,Vx,Nbn
ACTIVE LAYER (m) : 0.0-0.3-0.5 DESCRIPT. DATE : 06/17/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Terrace
GRANULAR - TYPE : SAND - gravelly, silty OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-2.0-4.5 - THICKNESS (m): 1.3-3.3-9.2
UNDERBURDEN : SILT-SAND
DEVELOP. CONSTRAINT: Possible land lease, closeness to highway
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 3 MOISTURE CONTENT-NUMBER : 3
CLASS : SM -RESULTS: 5-6-8
SIZE ANALYSIS-NO. : 3 GRAVEL (%) : 10-33-62 SAND (%): 19-44-64 FINES (%): 17-23-32
- OVERSIZE (%) : UN-8-UN D-50 (um) : 00140-03040-05500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 173,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: 34,000
CLASS 5: Unknown
TOTAL VOLUME: 34,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/26/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1789.9B STUDY NO. : NAHC-002,004
NTS MAP REFERENCE : 115G/11 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-588735 LOCATION : 13.6 km N Burwash Creek
UTM NORTHING : 6822820
LOCAL NAME(S) : MP 1112.8
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1789.9 OFFSET(m) : 125 Left

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 0 CONDITION : Developed
AREA (ha) : 13.4 SITE SCALE: 1:300 Ft DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : Unknown
PERFORMANCE RATING : Fair; Good - QUANTITY : NA; 3000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1972
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 1.8
BOREHOLES - NUMBER : 24 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 0.6-3.2-4.6 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Fair
SOURCE TOPOGRAPHY : Hummocky SLOPE: Steep
AREA DRAINAGE : Poorly drained
SOURCE VEGETATION : Strips of Black Spruce and cleared areas
PERMAFROST FEATURES: Unknown
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/77
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : SAND AND GRAVEL - some silt OVERBURDEN-TYPE : PEAT;ORGANIC SILT
- THICKNESS (m) : 0.6-3.2-4.6 - THICKNESS (m): 0.0-0.3-0.6
UNDERBURDEN : Unknown

DEVELOP. CONSTRAINT: Pit possibly depleted
DEVELOP. POTENTIAL : Fair; Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 13 MOISTURE CONTENT-NUMBER : 0
CLASS : SM/GM -RESULTS: NA
SIZE ANALYSIS-NO. : 13 GRAVEL (%) : 22-35-60 SAND (%): 27-45-57 FINES (%): 13-20-24
- OVERSIZE (%) : Unknown D-50 (um) : 00400-01450-05000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 1 RESULTS: UN-120-UN

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 300,000 CLASS 3: 300,000
ANNUAL RECOVERABLE : 20,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 300,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/17/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1798.0B STUDY NO. : NAHC-015,018
NTS MAP REFERENCE : 115G/11 DIGITIZ NO: MAP SCALE : 1:24000
UTM ZONE-EASTING : 7-585000 LOCATION : 0.8 km S Kluane Vlge Ldge
UTM NORTHING : 6829000
LOCAL NAME(S) : Kluane River
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1798.0 OFFSET(m) : 600 Right; 100 Left

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 50 CONDITION : Developed
AREA (ha) : 166. SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : Fair; NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1988
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.5
BOREHOLES - NUMBER : 15 TEST PITS - NO. : 8 EXPOSURES - NO. : 0
- DEPTH (m) : 1.4-4.4-10.0 - DEPTH (m): 1.1-3.5-4.3 - DEPTH (m) : NA
DATA QUALITY : Very Good
SOURCE TOPOGRAPHY : Gently sloping SLOPE: Gentle
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Spruce and Poplar
PERMAFROST FEATURES: Nf
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Terrace
GRANULAR - TYPE : GRAVEL AND SAND - trace silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-2.3-9.4 - THICKNESS (m): 0.0-1.8-4.8
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Private Land in area
DEVELOP. POTENTIAL : Very Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 18 MOISTURE CONTENT-NUMBER : 17
CLASS : GM/SM -RESULTS: 1-4-11
SIZE ANALYSIS-NO. : 17 GRAVEL (%) : 19-50-82 SAND (%): 17-45-72 FINES (%): 1-5-12
- OVERSIZE (%) : 0-3-5 D-50 (um) : 00840-07160-16000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 411,600
CLASS 2: 323,400
TOTAL RECOVERABLE : 4,400,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 735,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/19/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1812.0R STUDY NO. : NAHC-015
NTS MAP REFERENCE : 115G/12 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-574800 LOCATION : 3.2 km S Microwave 140
UTM NORTHING : 6833800
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1812.0 OFFSET(m) : 1600 Right

SOURCE ACCESS : KP 1812.0
ACCESS DISTANCE (m): 1600 CONDITION : Undeveloped
AREA (ha) : 39.3 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 3 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 3.0-7.5-10.2 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Fair
SOURCE TOPOGRAPHY : Rolling SLOPE: Medium/South
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Black Spruce
PERMAFROST FEATURES: Vs,Nbe
ACTIVE LAYER (m) : 0.1-0.2-0.2 DESCRIPT. DATE : 06/06/81
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Moraine
GRANULAR - TYPE : GRAVEL - silty, sandy OVERBURDEN-TYPE : PEAT;ASH;SILT
- THICKNESS (m) : 0.0-2.4-5.6 - THICKNESS (m): 1.4-4.4-10.
UNDERBURDEN : SILT;BEDROCK
DEVELOP. CONSTRAINT: Distance to source from Alaska Highway
DEVELOP. POTENTIAL : Poor-Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 0 MOISTURE CONTENT-NUMBER : 0
CLASS : NA -RESULTS: NA
SIZE ANALYSIS-NO. : 0 GRAVEL (%) : UN-UN-UN SAND (%): UN-UN-UN FINES (%): UN-UN-UN
- OVERSIZE (%) : UNKNOWN D-50 (um) : UN-UN-UN

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 300,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: 300,000
CLASS 5: Unknown
TOTAL VOLUME: 300,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/26/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1816.0R STUDY NO. : NAHC-002,004
NTS MAP REFERENCE : 115G/12 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-569400 LOCATION : 3.8 km S Donjek Rv Bridge
UTM NORTHING : 6834050
LOCAL NAME(S) : MP 1129
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1816.0 OFFSET(m) : 150 Right

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 20 CONDITION : Developed
AREA (ha) : 8.2 SITE SCALE: 1:400 Ft DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : 19 mm Crushed Gravel (silty)
PERFORMANCE RATING : Fair - QUANTITY : 5000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1971
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 3.2
BOREHOLES - NUMBER : 26 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 2.1-4.4-5.8 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Sloped SLOPE: Moderate
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Dense Black Spruce and Poplar
PERMAFROST FEATURES: Unknown
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/77
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : SAND - silty, gravelly OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 1.2-3.7-5.8 - THICKNESS (m): 0.0-0.8-3.4
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Silty material
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 15 MOISTURE CONTENT-NUMBER : 0
CLASS : SM -RESULTS: NA
SIZE ANALYSIS-NO. : 15 GRAVEL (%) : 15-24-57 SAND (%): 28-41-49 FINES (%): 15-35-45
- OVERSIZE (%) : UN-UN-UN D-50 (um) : 00140-00860-07500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 1 RESULTS: UN-110-UN

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 180,000 CLASS 3: 180,000
ANNUAL RECOVERABLE : 20,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 180,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/20/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1821.4B STUDY NO. : NAHC-009,010,013,015,018
NTS MAP REFERENCE : 115G/12 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-567500 LOCATION : 1.0 km S Donjek Rv Bridge
UTM NORTHING : 6838000
LOCAL NAME(S) : Donjek River
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1821.4 OFFSET(m) : 400 Right; 400 Left

SOURCE ACCESS : Existing pit access/1822.0
ACCESS DISTANCE (m): 20 CONDITION : Developed/Undeveloped
AREA (ha) : 38.2 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : Pit Run; NA
PERFORMANCE RATING : Good; NA - QUANTITY : 5000 cu m; NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1988
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.7
BOREHOLES - NUMBER : 21 TEST PITS - NO. : 7 EXPOSURES - NO. : 0
- DEPTH (m) : 1.4/5.5/11.9 - DEPTH (m): 1.2/1.9/2.6 - DEPTH (m) : NA
DATA QUALITY : Excellent
SOURCE TOPOGRAPHY : Gently rolling SLOPE: Gentle
AREA DRAINAGE : Well Drained with localized ponding
SOURCE VEGETATION : Partially stripped of overburden; Sparse to Dense Spruce and Poplar
PERMAFROST FEATURES: Vx,Vc,Vr,Nbn,Nbe,Nf
ACTIVE LAYER (m) : 0.0-0.3-1.5 DESCRIPT. DATE : 09/08/80
GENERIC ORIGIN : Alluvial LANDFORM(S) : Terrace
GRANULAR - TYPE : GRAVEL AND SAND - trace silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-3.4-9.5 - THICKNESS (m): 0.0-1.1-8.0
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Old pipeline, High water table, Overburden
DEVELOP. POTENTIAL : Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 39 MOISTURE CONTENT-NUMBER : 51
CLASS : GP/GW/GM -RESULTS: 4-8-12
SIZE ANALYSIS-NO. : 39 GRAVEL (%) : 33-54-70 SAND (%): 17-41-64 FINES (%): 1-5-21
- OVERSIZE (%) : 0-1-3 D-50 (um) : 01200-06300-10000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 179,400
CLASS 2: 123,200
TOTAL RECOVERABLE : 2,089,000 CLASS 3: 477,400
ANNUAL RECOVERABLE : 30,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 780,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/19/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1838.6R STUDY NO. : NAHC-015
NTS MAP REFERENCE : 15G/13 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-556500 LOCATION : 5.7 km S Edith Cr. Bridge
UTM NORTHING : 6847500
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1838.6 OFFSET(m) : 320 Right

SOURCE ACCESS : KP 1838.6
ACCESS DISTANCE (m): 400 CONDITION : Undeveloped
AREA (ha) : 7.5 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 1 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : UN-103-UN - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Rolling SLOPE: Steep/South
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense mixture of White and Black Spruce
PERMAFROST FEATURES: Nbe
ACTIVE LAYER (m) : UN-0.1-UN DESCRIPT. DATE : 06/09/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL AND SAND - trace silt OVERBURDEN-TYPE : PEAT;ASH;SAND
- THICKNESS (m) : UN-66.3-UN - THICKNESS (m): UN-4.0-UN
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Thick overburden, Steep, More testing required
DEVELOP. POTENTIAL : Poor

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 0 MOISTURE CONTENT-NUMBER : 0
CLASS : GM -RESULTS: NA
SIZE ANALYSIS-NO. : NA GRAVEL (%) : NA SAND (%): NA FINES (%): NA
- OVERSIZE (%) : NA D-50 (um) : NA

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 472,500 CLASS 3: 472,500
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 472,500

RECORD UPDATED BY : EBA Engineering Consultants Ltd
LAST UPDATE : 04/24/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1842.5R STUDY NO. : NAHC-015
NTS MAP REFERENCE : 115F/16 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-552000 LOCATION : 1.8 km S Edith Cr. Bridge
UTM NORTHING : 6851000
LOCAL NAME(S) : Lake Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1842.5 OFFSET(m) : 400 Right

SOURCE ACCESS : Trail
ACCESS DISTANCE (m): 100 CONDITION : Developed
AREA (ha) : 47.1 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Undeveloped; Old roadway STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 3 TEST PITS - NO. : 1 EXPOSURES - NO. : 0
- DEPTH (m) : 4.0-5.7-8.6 - DEPTH (m): UN-2.0-UN - DEPTH (m) : NA
DATA QUALITY : Fair
SOURCE TOPOGRAPHY : Knolls SLOPE: Medium/SW
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Black Spruce with Birch
PERMAFROST FEATURES: Vc,Vr,Vs,Nbe,Nbn
ACTIVE LAYER (m) : 0.20.7-2.0 DESCRIPT. DATE : 06/23/81
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Moraine
GRANULAR - TYPE : GRAVEL AND SAND - trace silt OVERBURDEN-TYPE : SILT;PEAT
- THICKNESS (m) : 0.0-1.5-3.6 - THICKNESS (m): 0.8-3.3-5.0
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Old pipeline, high spring water table
DEVELOP. POTENTIAL : Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 1 MOISTURE CONTENT-NUMBER : 1
CLASS : GM -RESULTS: UN-4-UN
SIZE ANALYSIS-NO. : 1 GRAVEL (%) : UN-49-UN SAND (%): UN-45-UN FINES (%): UN-6-UN
- OVERSIZE (%) : NA D-50 (um) : UN-05000-UN

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 110,000 CLASS 3: 110,000
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 110,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/27/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1844.1R STUDY NO. : NAHC-002,004
NTS MAP REFERENCE : 115F/16 DIGITIZ NO: MAP SCALE : 1:300 ft
UTM ZONE-EASTING : 7-550175 LOCATION : Adjacent to Edith Creek
UTM NORTHING : 6850960
LOCAL NAME(S) : Edith Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1844.1 OFFSET(m) : 450 Right

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 450 CONDITION : Developed
AREA (ha) : 8.9 SITE SCALE: 1:NA DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : 19 mm Crushed Gravel
PERFORMANCE RATING : Good - QUANTITY : 5000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1970
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 2.4
BOREHOLES - NUMBER : 21 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 2.1-3.1-7.6 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Fair to Good
SOURCE TOPOGRAPHY : Hummocky SLOPE: medium/South
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Black Spruce
PERMAFROST FEATURES: Unknown
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/77
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Hummock
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : PEAT;ORGANIC SAND
- THICKNESS (m) : 2.1-3.0-7.6 - THICKNESS (m): 0.0-0.2-1.1
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Nearly exhausted; high water table
DEVELOP. POTENTIAL : Poor-Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 5 MOISTURE CONTENT-NUMBER : 0
CLASS : GW/GP -RESULTS: NA
SIZE ANALYSIS-NO. : 5 GRAVEL (%) : 58-71-81 SAND (%): 17-26-39 FINES (%): 2-2-3
- OVERSIZE (%) : Unknown D-50 (um) : 07500-09800-12000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 1 RESULTS: UN-120-UN

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 134,000
TOTAL RECOVERABLE : 134,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 134,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/18/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1853.0R STUDY NO. : NAHC-015
NTS MAP REFERENCE : 115F/16 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-545500 LOCATION : 0.7 km S Lake Cr. Campgr.
UTM NORTHING : 6858300
LOCAL NAME(S) : Koidern River #1
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1853.0 OFFSET(m) : 250 Right

SOURCE ACCESS : Trail
ACCESS DISTANCE (m): 100 CONDITION : Developed
AREA (ha) : 48.5 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 1 TEST PITS - NO. : 4 EXPOSURES - NO. : 0
- DEPTH (m) : UN-2.2-UN - DEPTH (m): 2.4-3.2-3.7 - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Hummocky SLOPE: Moderate/SW
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Spruce and Aspen
PERMAFROST FEATURES: Nbn,Nf,Vs,Vr
ACTIVE LAYER (m) : 0.2-1.2-3.7 DESCRIPT. DATE : 06/18/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL - sandy, silty OVERBURDEN-TYPE : PEAT;ASH;ORGANIC SILT
- THICKNESS (m) : 0.0-1.0-2.3 - THICKNESS (m): 0.8-2.0-3.7
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Campground near area
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 2 MOISTURE CONTENT-NUMBER : 5
CLASS : GP -RESULTS: 3-5-8
SIZE ANALYSIS-NO. : 2 GRAVEL (%) : 61-UN-65 SAND (%): 33-UN-37 FINES (%): 2-UN-2
- OVERSIZE (%) : 30-UN-43 D-50 (um) : 09800-UN-17000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 300,000
TOTAL RECOVERABLE : 300,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 300,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/19/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1857.4R STUDY NO. : NAHC-009,010,011,015
NTS MAP REFERENCE : 115F/16 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-542700 LOCATION : 3.7 km N Lake Cr. Campgr.
UTM NORTHING : 6862000
LOCAL NAME(S) : Long Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1857.4 OFFSET(m) : 150 Right

SOURCE ACCESS : Existing pit access at KP 1858.0
ACCESS DISTANCE (m): 20 CONDITION : Developed
AREA (ha) : 51.2 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : Pit wall stripped
PERFORMANCE RATING : Good - QUANTITY : 1000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.2
BOREHOLES - NUMBER : 6 TEST PITS - NO. : 4 EXPOSURES - NO. : 0
- DEPTH (m) : 6.8-8.8-10.2 - DEPTH (m): 1.7-2.4-14- - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Ridged SLOPE: Moderate to steep
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Black Spruce and Alder
PERMAFROST FEATURES: Vs,Vc,Vr,Nbn,Nbe
ACTIVE LAYER (m) : 0.0-0.2-0.6 DESCRIPT. DATE : 06/21/81
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Terrace
GRANULAR - TYPE : GRAVEL - sandy, some silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-3.7-7.2 - THICKNESS (m): 1.0-2.2-4.2
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Permafrost, some steep slopes
DEVELOP. POTENTIAL : Very Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 4 MOISTURE CONTENT-NUMBER : 11
CLASS : GM/GP -RESULTS: 5-13-22
SIZE ANALYSIS-NO. : 4 GRAVEL (%) : 49-65-79 SAND (%): 18-24-36 FINES (%): 3-11-16
- OVERSIZE (%) : Unknown D-50 (um) : 04800-10000-12600

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 85,000
TOTAL RECOVERABLE : 602,700 CLASS 3: 85,000
ANNUAL RECOVERABLE : 30,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 170,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/19/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1865.0R STUDY NO. : NAHC-009,010,011,015
NTS MAP REFERENCE : 115F/16 DIGITIZ NO: MAP SCALE : 1:24000
UTM ZONE-EASTING : 7-536600 LOCATION : 7.6 km S Koidern Bridge 2
UTM NORTHING : 6866200
LOCAL NAME(S) : Pickhandle Lake
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1865.0 OFFSET(m) : 200 Right

SOURCE ACCESS : 1864.2/1866.5
ACCESS DISTANCE (m): 150 CONDITION : Undeveloped
AREA (ha) : 40.3 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.2
BOREHOLES - NUMBER : 2 TEST PITS - NO. : 4 EXPOSURES - NO. : 0
- DEPTH (m) : 3.7-5.6-7.5 - DEPTH (m): 1.2-2.1-2.5 - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Gullies SLOPE: Moderate to steep/SW
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Poplar with Willow and Alder
PERMAFROST FEATURES: Nbn
ACTIVE LAYER (m) : 0.3-2.4-7.5 DESCRIPT. DATE : 07/23/79
GENERIC ORIGIN : Colluvial,Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL - sandy, silty OVERBURDEN-TYPE : ORGANIC SAND;ORGANIC SILT;PE
- THICKNESS (m) : 0.0-2.0-4.0 - THICKNESS (m): 0.2-0.5-1.2
UNDERBURDEN : SILT;SAND-SILT
DEVELOP. CONSTRAINT: Marginal material (possible shale)
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 4 MOISTURE CONTENT-NUMBER : 11
CLASS : GM/SM -RESULTS: 5-8-18
SIZE ANALYSIS-NO. : 4 GRAVEL (%) : 35-43-52 SAND (%): 27-34-39 FINES (%): 15-24-32
- OVERSIZE (%) : 0-20-39 D-50 (um) : 01000-06750-11000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 716,400 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: 75,000
CLASS 5: Unknown
TOTAL VOLUME: 75,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/25/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1871.3R STUDY NO. : NAHC-009,010,015
NTS MAP REFERENCE : 115F/16 DIGITIZ NO: MAP SCALE : 1:24000
UTM ZONE-EASTING : 7-532000 LOCATION : 1.3 km S Koidern Bridge 2
UTM NORTHING : 6870000
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1871.3 OFFSET(m) : 300 Right

SOURCE ACCESS : 1871.3 (trail)
ACCESS DISTANCE (m): 200 CONDITION : Undeveloped
AREA (ha) : 62.7 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & Delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.2
BOREHOLES - NUMBER : 1 TEST PITS - NO. : 10 EXPOSURES - NO. : 0
- DEPTH (m) : UN-6.0-UN - DEPTH (m): 1.0-2.1-3.4 - DEPTH (m) : NA
DATA QUALITY : Very Good
SOURCE TOPOGRAPHY : Undulating SLOPE: Steep/West
AREA DRAINAGE : Well Drained
SOURCE VEGETATION : Dense Poplar and Alder,Trace White Spruce and Birch
PERMAFROST FEATURES: Nf,Nbn,Vc,Vx
ACTIVE LAYER (m) : 0.0-0.2-3.1 DESCRIPT. DATE : 06/23/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : ORGANIC SILT
- THICKNESS (m) : 0.0-1.9-5.0 - THICKNESS (m): 0.3-0.6-1.5
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Steepness, Permafrost, distance from highway
DEVELOP. POTENTIAL : Fair-Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 7 MOISTURE CONTENT-NUMBER : 9
CLASS : GM/GP -RESULTS: 4-9-12
SIZE ANALYSIS-NO. : 7 GRAVEL (%) : 42-58-64 SAND (%): 17-28-37 FINES (%): 6-14-21
- OVERSIZE (%) : 0-20-35 D-50 (um) : 02000-08640-16000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 400,000
TOTAL RECOVERABLE : 1,055,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 400,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/25/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1879.0B STUDY NO. : NAHC-008,015,018
NTS MAP REFERENCE : 115F/15 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-526000 LOCATION : 1.9 km S White Rv. Bridge
UTM NORTHING : 6872400
LOCAL NAME(S) : White River (South Side)
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1879.0 OFFSET(m) : 400 Right; 450 Left

SOURCE ACCESS : Existing pit access at KP 1880 Right
ACCESS DISTANCE (m): 150 CONDITION : Developed/Undeveloped
AREA (ha) : 118. SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : 19 mm Crushed Gravel; NA
PERFORMANCE RATING : Good; NA - QUANTITY : 10,000 cu m; NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1988
GEOPHYSICAL DATA : EM-31 TEST HOLE DENSITY (#/ha): 0.4
BOREHOLES - NUMBER : 32 TEST PITS - NO. : 11 EXPOSURES - NO. : 0
- DEPTH (m) : 2.3-4.7-7.5 - DEPTH (m): 2.0-3.5-4.3 - DEPTH (m) : NA
DATA QUALITY : Excellent
SOURCE TOPOGRAPHY : Rolling SLOPE: Gentle
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Spruce,Localized treeless meadows
PERMAFROST FEATURES: Nf,Nbn,Vs,Vx
ACTIVE LAYER (m) : 0.2-0.9-4.2 DESCRIPT. DATE : 06/23/81
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan(Flood Plain)
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-3.6-6.5 - THICKNESS (m): 0.0-0.5-1.7
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Foothills camp in area
DEVELOP. POTENTIAL : Excellent

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 91 MOISTURE CONTENT-NUMBER : 106
CLASS : GP/GW -RESULTS: 2-4-11
SIZE ANALYSIS-NO. : 91 GRAVEL (%) : 53-70-91 SAND (%): 6-26-42 FINES (%): 1-4-13
- OVERSIZE (%) : 0-6-10 D-50 (um) : 05500-14300-35000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 652,400
CLASS 2: 978,600
TOTAL RECOVERABLE : 1,937,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 30,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 1,631,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/21/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1882.5L STUDY NO. : NAHC-010,011,013
NTS MAP REFERENCE : 115F/15 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-522500 LOCATION : 1.6 km N White Rv. Bridge
UTM NORTHING : 6873000
LOCAL NAME(S) : White River (North Side)
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1882.5 OFFSET(m) : 200 Left

SOURCE ACCESS : KP 1882.5
ACCESS DISTANCE (m): 200 CONDITION : Trail(undeveloped)
AREA (ha) : 60 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 5 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 7.2-10.7-14.4 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Gullies SLOPE: Steep/South
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Dense Spruce and Moss
PERMAFROST FEATURES: Vx,Vc,Vs,Nbn
ACTIVE LAYER (m) : 0.0-0.3-2.0 DESCRIPT. DATE : 09/07/80
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL - sandy, some silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 2.5-5.9-9.6 - THICKNESS (m): 0.2-1.7-5.2
UNDERBURDEN : PEAT;SILT
DEVELOP. CONSTRAINT: Thickness of Overburden
DEVELOP. POTENTIAL : Fair-Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 9 MOISTURE CONTENT-NUMBER : 34
CLASS : GM -RESULTS: 4-8-12
SIZE ANALYSIS-NO. : 9 GRAVEL (%) : 45-54-61 SAND (%): 28-33-39 FINES (%): 6-13-16
- OVERSIZE (%) : Unknown D-50 (um) : 03500-08570-22500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 800,000 CLASS 3: 800,000
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 800,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/25/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1890.9L STUDY NO. : NAHC-010,011
NTS MAP REFERENCE : 115K/2 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-519300 LOCATION : 10 km N White Rv. Bridge
UTM NORTHING : 6879600
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1890.9 OFFSET(m) : 200 Right

SOURCE ACCESS : Existing Pit Access
ACCESS DISTANCE (m): 0 CONDITION : Developed
AREA (ha) : 7.5 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.5
BOREHOLES - NUMBER : 4 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 7.8-9.5-11.0 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Gently sloping SLOPE: Gentle
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Partially stripped of overburden; Dense Spruce
PERMAFROST FEATURES: Vx,Vr,Vc,Nbe
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/80
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Plain
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : PEAT;ORGANIC SILT;CLAY
- THICKNESS (m) : 6.0-8.0-9.7 - THICKNESS (m): 0.8-1.5-2.1
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Adjacent to Proposed Foothills Compressor Station
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 8 MOISTURE CONTENT-NUMBER : 0
CLASS : GM/GP -RESULTS: NA
SIZE ANALYSIS-NO. : 8 GRAVEL (%) : 51-64-77 SAND (%): 16-26-39 FINES (%): 5-10-25
- OVERSIZE (%) : Unknown D-50 (um) : 04000-09500-16000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 100,000
TOTAL RECOVERABLE : 100,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 100,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/25/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1895.0B STUDY NO. : NAHC-010,013
NTS MAP REFERENCE : 115K/2 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-518200 LOCATION : 0.3 km S Microwave 141
UTM NORTHING : 6833000
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1895.0 OFFSET(m) : 200 Right; 100 Left

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 75 CONDITION : developed
AREA (ha) : 91 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : NA; NA
PERFORMANCE RATING : Fair-Good; NA - QUANTITY : NA; NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.1
BOREHOLES - NUMBER : 10 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 5.5-9.6-14.5 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Flat SLOPE: Flat
AREA DRAINAGE : Poorly drained
SOURCE VEGETATION : Partially stripped of overburden; Dense Poplar
PERMAFROST FEATURES: Vx,Vc,Nbn
ACTIVE LAYER (m) : 0.0-3.5-9.7 DESCRIPT. DATE : 09/30/80
GENERIC ORIGIN : Alluvial LANDFORM(S) : Fan
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : PEAT;SILT;CLAY
- THICKNESS (m) : 2.3-7.4-14.5 - THICKNESS (m): 0.0-2.1-4.1
UNDERBURDEN : SILT
DEVELOP. CONSTRAINT: Permafrost; Drainage
DEVELOP. POTENTIAL : Very Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 14 MOISTURE CONTENT-NUMBER : 52
CLASS : GM/GP -RESULTS: 2-7-15
SIZE ANALYSIS-NO. : 14 GRAVEL (%) : 34-58-80 SAND (%): 16-31-58 FINES (%): 3-11-31
- OVERSIZE (%) : Unknown D-50 (um) : 02200-12200-42000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: 700,000
TOTAL RECOVERABLE : 700,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 700,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/25/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1897.0R STUDY NO. : NAHC-011,015
NTS MAP REFERENCE : 115K/2 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-518500 LOCATION : 1.0 km N Little Sandpete
UTM NORTHING : 6885800
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1897.0 OFFSET(m) : 500 Right

SOURCE ACCESS : 1897.0
ACCESS DISTANCE (m): 500 CONDITION : Undeveloped
AREA (ha) : 38.1 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Non-Active
PAST USE - SOURCE : Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : NA - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1981
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.05
BOREHOLES - NUMBER : 2 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 9.0-UN-10.3 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Fair-Good
SOURCE TOPOGRAPHY : Ridged SLOPE: Steep/West
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Moderately dense Black Spruce
PERMAFROST FEATURES: Vr,Vc,Vs,Nbn
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/80
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Moraine
GRANULAR - TYPE : GRAVEL - sandy, silty OVERBURDEN-TYPE : PEAT;ORGANIC SILT
- THICKNESS (m) : 8.1-8.5-8.9 - THICKNESS (m): 0.2-1.2-2.2
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Permafrost; some shale in pit
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 7 MOISTURE CONTENT-NUMBER : 13
CLASS : GM -RESULTS: 5-8-12
SIZE ANALYSIS-NO. : 7 GRAVEL (%) : 25-44-57 SAND (%): 24-33-44 FINES (%): 0-23-34
- OVERSIZE (%) : 0-0-0 D-50 (um) : 00425-04060-09500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 150,000 CLASS 3: 150,000
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 150,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/26/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1902.2R STUDY NO. : NAHC-008,010,013
NTS MAP REFERENCE : 115K/2 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-517200 LOCATION : 1.4 km N Dry Cr. Bridge 1
UTM NORTHING : 6890300
LOCAL NAME(S) : Dry Creek
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1902.2 OFFSET(m) : 700 Right

SOURCE ACCESS : Existing Pit Access at KP 1902.2 Right
ACCESS DISTANCE (m): 10 CONDITION : Developed
AREA (ha) : 20 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : 19 mm Crushed; Pitrun
PERFORMANCE RATING : Good - QUANTITY : 4000; 6000 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.3
BOREHOLES - NUMBER : 6 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 2.4-7.9-10.0 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Sloped SLOPE: Steep/SW
AREA DRAINAGE : Moderately to well drained
SOURCE VEGETATION : Partially stripped of overburden; brush and patches of Spruce
PERMAFROST FEATURES: Vx,Vs,Nbn,Vc
ACTIVE LAYER (m) : 0.2-5.5-8.7 DESCRIPT. DATE : 09/14/80
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Moraine
GRANULAR - TYPE : GRAVEL - silty, sandy OVERBURDEN-TYPE : PEAT;ORGANIC SILT
- THICKNESS (m) : 2.1-5.5-8.7 - THICKNESS (m): 0.0-1.4-3.1
UNDERBURDEN : SAND-CLAY;BEDROCK
DEVELOP. CONSTRAINT: Under PWC development at present time
DEVELOP. POTENTIAL : Good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 3 MOISTURE CONTENT-NUMBER : 35
CLASS : GM -RESULTS: 5-9-18
SIZE ANALYSIS-NO. : 3 GRAVEL (%) : 35-38-40 SAND (%): 26-30-35 FINES (%): 30-32-34
- OVERSIZE (%) : Unknown D-50 (um) : 00830-00970-01250

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 200,000 CLASS 3: 200,000
ANNUAL RECOVERABLE : 20,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 200,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/27/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1910.3L STUDY NO. : NAHC-002,004,008,011
NTS MAP REFERENCE : 115K/2 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-516200 LOCATION : 2.4 km S Snag Rd. Cut-off
UTM NORTHING : 6896700
LOCAL NAME(S) : MP 1186.5
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1910.3 OFFSET(m) : 150 Left

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 20 CONDITION : Developed
AREA (ha) : 9.3 SITE SCALE: 1:400 Ft DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow STOCKPILE - TYPE : NA
PERFORMANCE RATING : Fair - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 3.3
BOREHOLES - NUMBER : 30 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 1.2-3.7-22.0 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Narrow ridge SLOPE: Steep/South
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Black Spruce
PERMAFROST FEATURES: Vx,Vc,Vr,Vs,Nbn
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 01/01/77
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Moraine
GRANULAR - TYPE : SAND - gravelly, silty OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.0-2.8-6.7 - THICKNESS (m): 0.0-1.0-3.0
UNDERBURDEN : SILT-SAND
DEVELOP. CONSTRAINT: Pit not in use, high silt content
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 9 MOISTURE CONTENT-NUMBER : 9
CLASS : SM -RESULTS: 5-7-11
SIZE ANALYSIS-NO. : 9 GRAVEL (%) : 14-31-50 SAND (%): 32-46-61 FINES (%): 19-23-30
- OVERSIZE (%) : Unknown D-50 (um) : 00400-01830-05000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 1 RESULTS: UN-120-UN

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 100,000 CLASS 3: 100,000
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 100,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/26/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1918.OR STUDY NO. : NAHC-002,010,013
NTS MAP REFERENCE : 115/H7 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 514500 LOCATION : 5.3 km N Snag Rd. Cut-off
UTM NORTHING : 6904050
LOCAL NAME(S) : Unknown
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1918.0 OFFSET(m) : 150 Right

SOURCE ACCESS : Existing Pit Access
ACCESS DISTANCE (m): 50 CONDITION : Developed
AREA (ha) : 49.4 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : NA
PERFORMANCE RATING : Fair-Good - QUANTITY : NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & Delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.9
BOREHOLES - NUMBER : 43 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 0.6-3.6-8.0 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Fair
SOURCE TOPOGRAPHY : Hummocky SLOPE: Moderte to Steep(SW)
AREA DRAINAGE : Moderately well drained-some ponding
SOURCE VEGETATION : Patches of spruce and shrubs
PERMAFROST FEATURES: Vx, Vs, Nbn
ACTIVE LAYER (m) : Unknown DESCRIPT. DATE : 06/01/80
GENERIC ORIGIN : Glacial Moraine LANDFORM(S) : Moraine
GRANULAR - TYPE : GRAVEL - sandy OVERBURDEN-TYPE : ORGANICS, SILT
- THICKNESS (m) : 0.0-1.4-5.8 - THICKNESS (m): 0.0-2.0-6.0
UNDERBURDEN : SILT;SAND-SILT
DEVELOP. CONSTRAINT: Permafrost, Shale in Area, Clearing needed
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 16 MOISTURE CONTENT-NUMBER : 3
CLASS : GM/SM -RESULTS: 8-10-12
SIZE ANALYSIS-NO. : 16 GRAVEL (%) : 27-52-70 SAND (%): 16-37-54 FINES (%): 01-11-19
- OVERSIZE (%) : Unknown D-50 (um) : 01400-05900-11500

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 300 000 CLASS 3: 90 000
ANNUAL RECOVERABLE : 10,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 90 000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/22/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1936.0B STUDY NO. : NAHC-009,011,013
NTS MAP REFERENCE : 115K/7 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-506500 LOCATION : 1.6 km N Bvr.Ck. Grdr Sta
UTM NORTHING : 6918500
LOCAL NAME(S) : Sawmill Pit
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1936.0 OFFSET(m) : 300 Right; 800 Left

SOURCE ACCESS : Existing pit access at KP1938.0 Right; KP1937.5 Left
ACCESS DISTANCE (m): 100 CONDITION : Developed
AREA (ha) : 150 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : 38 mm Screened Gravel; NA
PERFORMANCE RATING : Good; Poor - QUANTITY : 200 cu m; NA

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.05
BOREHOLES - NUMBER : 7 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 6.5-10.0-11.6 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Very Good
SOURCE TOPOGRAPHY : Gently sloping SLOPE: Gentle/North
AREA DRAINAGE : Moderately well drained
SOURCE VEGETATION : Partially stripped of overburden; dense Spruce
PERMAFROST FEATURES: none
ACTIVE LAYER (m) : 1.2-6.1-10. DESCRIPT. DATE : 09/04/80
GENERIC ORIGIN : Glaciofluvial LANDFORM(S) : Plain
GRANULAR - TYPE : GRAVEL - sandy, trace silt OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 4.1-8.9-10.5 - THICKNESS (m): 0.2-1.0-2.4
UNDERBURDEN : Unknown
DEVELOP. CONSTRAINT: Near Townsite and Airport; Pit at airport poor
DEVELOP. POTENTIAL : Very good

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 13 MOISTURE CONTENT-NUMBER : 40
CLASS : GP/GW -RESULTS: 2-4-14
SIZE ANALYSIS-NO. : 13 GRAVEL (%) : 46-57-71 SAND (%): 23-36-51 FINES (%): 2-7-12
- OVERSIZE (%) : Unknown D-50 (um) : 03500-09400-24000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: 250,000
CLASS 2: Unknown
TOTAL RECOVERABLE : 2,500,000 CLASS 3: Unknown
ANNUAL RECOVERABLE : 20,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 250,000

RECORD UPDATED BY : EBA Engineering Consultants Ltd.
LAST UPDATE : 04/25/89

EBA PROJECT NUMBER : 0201-4981

NORTH ALASKA HIGHWAY CORRIDOR (YT)
GRANULAR RESOURCES DATABASE
SOURCE CATALOGUE DATA SHEET

========== PART A: LOCATION AND STATUS ==========

SOURCE NUMBER : 1957.8L STUDY NO. : NAHC-008,010,013
NTS MAP REFERENCE : 115K/10 DIGITIZ NO: MAP SCALE : 1:50000
UTM ZONE-EASTING : 7-500500 LOCATION : 1.6 km S Ltle Scottie Cr.
UTM NORTHING : 6936500
LOCAL NAME(S) : MP 1216 Pit
CORRIDOR NO./NAME : Alaska Highway
KILOMETRE POST : 1960.6 OFFSET(m) : 500 Left

SOURCE ACCESS : Existing pit access
ACCESS DISTANCE (m): 20 CONDITION : Developed
AREA (ha) : 30 SITE SCALE: 1:10000 DIGITIZ NO:

LAND TENURE : Territorial STATUS : Active
PAST USE - SOURCE : Borrow; Undeveloped STOCKPILE - TYPE : Pit Run
PERFORMANCE RATING : Fair - QUANTITY : 100 cu m

========== PART B: SOURCE INVESTIGATION AND DESCRIPTIVE INFORMATION ==========

INVESTIGATION LEVEL: Exploration & delineation LAST INVEST DATE : 1980
GEOPHYSICAL DATA : Unknown TEST HOLE DENSITY (#/ha): 0.3
BOREHOLES - NUMBER : 6 TEST PITS - NO. : 0 EXPOSURES - NO. : 0
- DEPTH (m) : 2.0-8.2-11.3 - DEPTH (m): NA - DEPTH (m) : NA
DATA QUALITY : Good
SOURCE TOPOGRAPHY : Ridge SLOPE: Steep/SW
AREA DRAINAGE : Well drained
SOURCE VEGETATION : Partially stripped of overburden; Dense Spruce and Poplar
PERMAFROST FEATURES: Vx,Vs,Nbn
ACTIVE LAYER (m) : 0.1-3.7-11. DESCRIPT. DATE : 09/24/80
GENERIC ORIGIN : Colluvium LANDFORM(S) : Moraine
GRANULAR - TYPE : GRAVEL - silty, sandy OVERBURDEN-TYPE : PEAT;SILT
- THICKNESS (m) : 0.8-3.0-7.6 - THICKNESS (m): 0.0-2.3-7.0
UNDERBURDEN : CLAY;SILT;SANDSTONE
DEVELOP. CONSTRAINT: High silt content
DEVELOP. POTENTIAL : Fair

========== PART C: TEST RESULTS AND MATERIAL QUANTITY ==========

USC - NUMBER : 6 MOISTURE CONTENT-NUMBER : 8
CLASS : GM -RESULTS: 4-8-12
SIZE ANALYSIS-NO. : 6 GRAVEL (%) : 32-47-66 SAND (%): 13-24-31 FINES (%): 20-29-40
- OVERSIZE (%) : Unknown D-50 (um) : 00850-07560-16000

PETROGRAPHIC ANALYSIS-NO. OF TESTS: 0 RESULTS: NA

OTHER TESTS (see the DATA DICTIONARY) : 0

MATERIAL QUANTITY (All in cubic metres)
CLASS 1: Unknown
CLASS 2: Unknown
TOTAL RECOVERABLE : 300,000 CLASS 3: 300,000
ANNUAL RECOVERABLE : 20,000 CLASS 4: Unknown
CLASS 5: Unknown
TOTAL VOLUME: 300,000

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