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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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GEOLOGICAL AND SAMPLING REPORT

CMM 1, 2, 3 and 4 (SOUTH PART) CLAIMS

NTS 82 G/10

**Fort Steele Mining Division
British Columbia**

**Latitude: 49°38'20"N
Longitude: 114°40'45"W**

**Owner/Operator: Ecowaste Industries Ltd.
Richmond B.C.**

FILMED

**Authors: A.W. Knox, P.Geol., Consulting Geologist
J. N. Schindler, P. Geol.
Schindler Exploration Consultants Ltd.
Calgary, Alberta**

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

Report Date: December 3, 1995

Report Submitted: December 13, 1995

24,182

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1. SUMMARY

The 1995 work on the property, covered in this report, was conducted under Notice of Work Approval Number CBK 95-0500719-0001-M37, dated May 10, 1995.

The CMM South Area is covered by the CMM #1 to 3 claims and the south part of the CMM #4 claim. The project area is part of a larger contiguous claim block staked in 1994 in the name of Ecowaste Industries Ltd., Richmond, B.C.. For management purposes, the claim block was split into two areas. Accordingly, the north area is reported on separately.

The property is well located and is close to the main southern CPR line, as well as to the infrastructure provided by the towns of Sparwood, British Columbia, and Blairmore, Alberta. Sparwood and Blairmore are roughly equidistant (20 km) from the property via Highway #3. A rough 1.5 km road leads from Highway #3 to the north margin of the property.

This report is based essentially on detailed systematic fieldwork conducted by A. W. Knox, along with several junior assistants in the summer of 1995, and is supplemented by field work based on several field trips to the property by J. N. Schindler.

The area surveyed is 0.93 km². Work done on the property includes an air photo survey conducted by The Orthoshop, Calgary, from which 1:2,000 and 1:5,000 orthophotos were produced. 4,287 metres of flagged grid and base lines, established using chain and compass methods, formed the basis of control for the geological mapping and sampling at a scale of 1:2,000. 138 rock samples were collected, crushed and riffle split. The representative sample splits were shipped by air to the Central Laboratory of Continental Lime Inc., Salt Lake City, Utah, where they were analysed for CaCO₃, MgCO₃, SiO₂, Al₂O₃, Fe₂O₃, MnO, SrCO₃, BaO, K₂O, Na₂O, P₂O₅, and TiO₂, by ICP.

The CMM South Area is situated in the Front Ranges of the Rocky Mountains, but with the exception of its east margin, relief on the property is subdued (less than 100 metres).

The most important limestone formations in the area are the Palliser Formation (Devonian Age) and the Livingstone Formation (middle Mississippian Age), which historically has been the main source of limestone for Summit Lime Works Ltd.. In this project, preliminary mapping and sampling were conducted in the three lowest units of the Rundle Group, namely, the Livingstone, Mount Head and Etherington Formations.

The region is structurally complex, with its most notable structural feature being the Lewis Thrust Fault. The Lewis Thrust Fault extends for more than 100 km north and south of the Crowsnest Pass area, and its surface trace passes about 3.5 km east of the project area. The property is underlain by homoclinely west dipping, north striking, sedimentary rocks of the Lewis Thrust Sheet. Rocks comprising the thrust sheet are cut by lesser, west dipping thrust faults.

2. CONCLUSIONS AND RECOMMENDATIONS

The results of sampling, completed in 1995 on the CMM South Area Claims, indicate the presence of several high calcium limestone horizons. These horizons are situated at different stratigraphic levels. Specifically, the F1 unit of the Livingstone Formation, the C1, C2, A2, and A₀, subunits of the Mount Head Formation, as well as the A-1b1 to A-1b4 horizons of the lower

Etherington Formation, appear to have good exploration potential.

Secondary exploration targets include E1, E5, A0b and A0c subunits of the Mount Head Formation.

Accordingly, a small drill program totalling 1,400 metres in fourteen 100 m holes is recommended to provide a more thorough test of the area.

3. LOCATION AND ACCESS

The project area is located just north of the Crowsnest Pass in the Front Ranges of the Rocky Mountains (Figure 1). The area is bounded by the Alberta-British Columbia border on the south and the Phillipps Pass pipeline road on the north. The centre of the area is 49°38'20"N and 114°40'45"W.

The area is accessible by a rough two wheel drive road along a high pressure gas line located east of Crow's Nest Provincial Park, which is situated 1.5 km northwest of the claims.

4. CLAIMS

The C.M.M.# 1-4 claims, which cover the project area, were staked in September and October of 1994 as part of a larger block of contiguous claims which also includes the CMM # 5-7 claims (Figure 2).

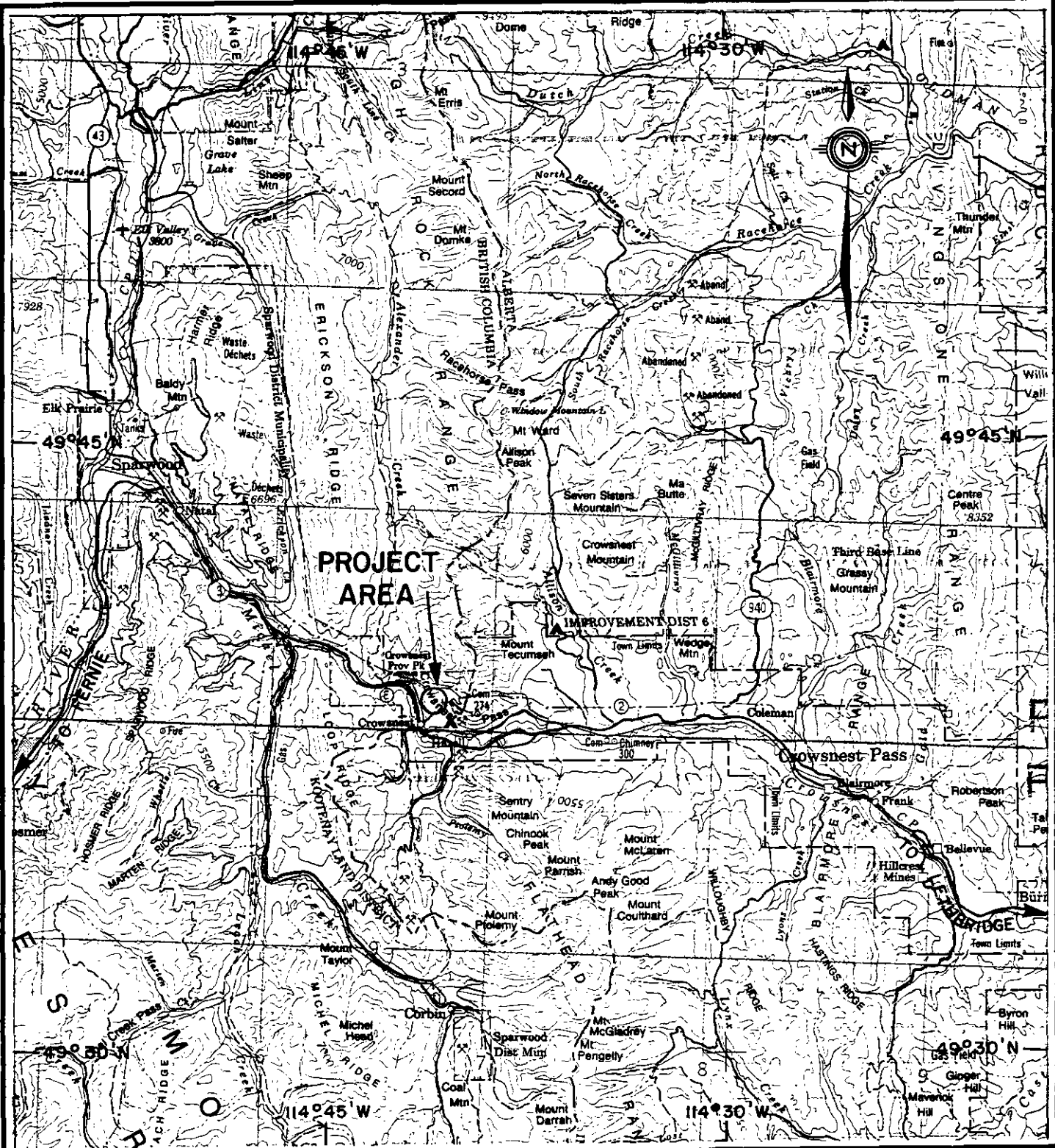
For management purposes the claim block was split into two areas along the utility corridor through Phillipps Pass, thus dividing the claims into the CMM South Area and the CMM North Area. This report deals only with the CMM South Area, which covers the CMM # 1-3 and 4(south part) claims. The CMM North area will be reported on separately.

A Schedule of Claims is given in Table 1 below:

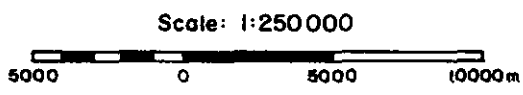
TABLE 1
SCHEDULE OF CLAIMS, CMM SOUTH AREA,
FORT STEELE MINING DIVISION, B.C.

Claim Number	Tag Number	Date Staked	Recording Date
CMM # 1	659860	Sept. 18, 1994	Oct. 7, 1994
CMM # 2	659861	Sept. 18, 1994	Oct. 7, 1994
CMM # 3	659863	Oct. 11, 1994	Oct. 31, 1994
CMM # 4	213832	Sept. 20, 1994	Oct. 7, 1994

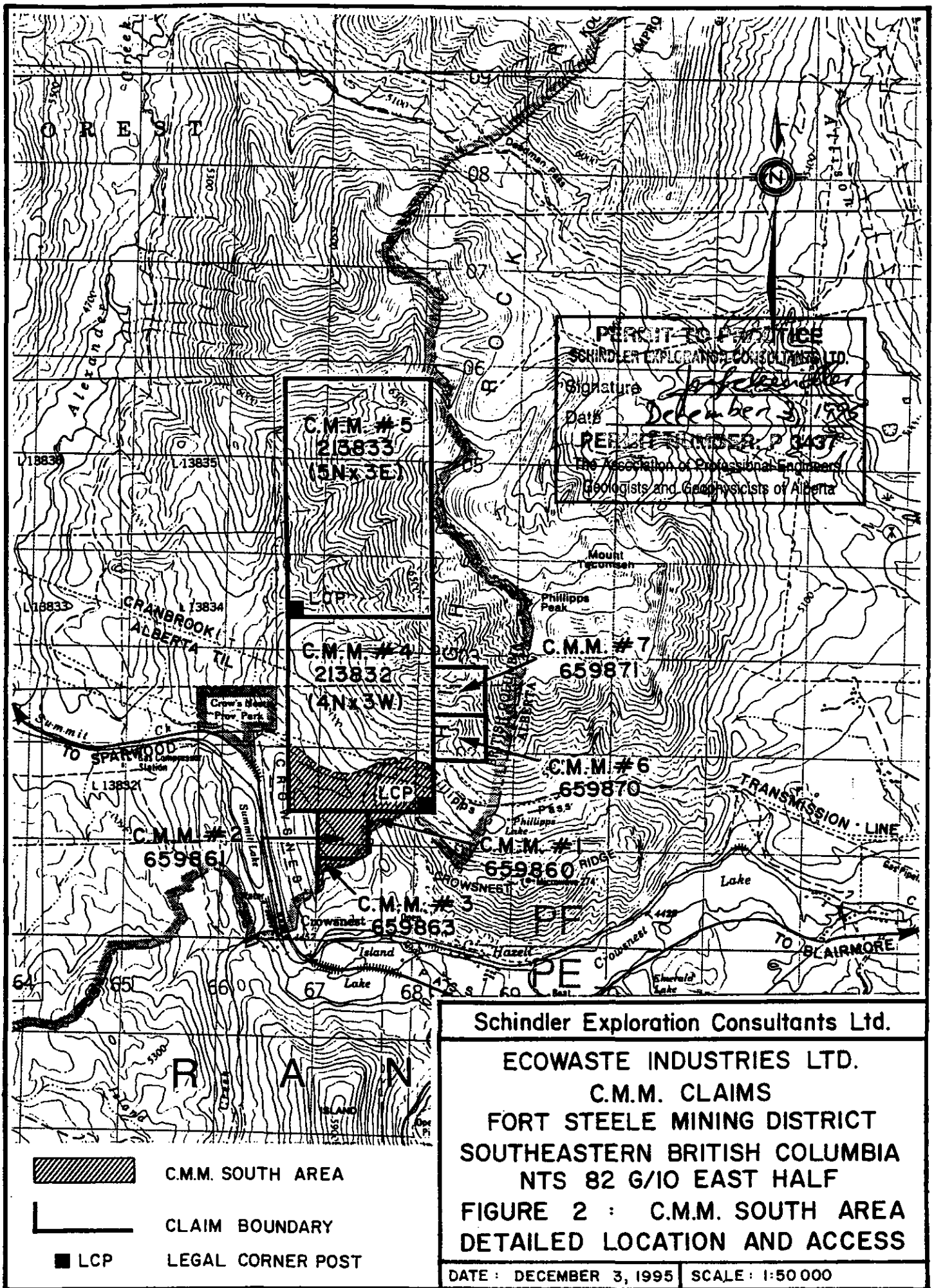
The CMM 1-4 claims were staked and recorded in the name of Ecowaste Industries Ltd.,



Schindler Exploration Consultants Ltd.
ECOWASTE INDUSTRIES LTD.
C.M.M. CLAIMS
FORT STEELE MINING DISTRICT
SOUTHEASTERN BRITISH COLUMBIA
NTS 82 G
FIGURE 1 : C.M.M SOUTH AREA
GENERAL LOCATION



DATE : DECEMBER 3, 1995 | SCALE : 1:250 000



14431 River Road, Richmond B.C. V6V 1L3.

The surface and timber rights covering the project area are owned by Crestbrook Forest Industries, Cranbrook B.C.

5. PHYSIOGRAPHY AND VEGETATION

The project area is mainly covered by gently rolling terrain with a strong north-south grain which parallels the strike of the underlying rock units. Maximum relief (about 180 m) is attained along the east border of the property where a moderate to steep, west facing slope marks the western extremity of Crowsnest Ridge.

The vegetation covering the claims is mainly an open forest consisting of medium-sized pines and shrubby junipers. The area just east and west of the baseline 10+00N contains larger pines including some lodgepole pines.

6. REGIONAL GEOLOGY

The first published geological map covering the project area is that of Price (1961). This map illustrates the general distribution of the rock units. Holter (1976) amplified the preliminary mapping and sampling conducted by Gouge (1945) of the limestones in the Crowsnest Pass area. As well, a preliminary study of the reserves of high calcium limestone between Crowsnest and Deadman Pass was conducted by Macdonald and Hamilton (1981).

The stratigraphic column for the CMM South Area is given in Table 2. The most important limestone formations in the area are the Palliser, Livingstone and Mount Head Formations. At Summit Lime Works Ltd., located just south of the project area, historically production has been mainly from the Livingstone Formation (Macdonald and Hamilton, 1981, and Holter, 1994).

Typically the Palliser Formation (Devonian Age) consist of massively bedded, dark grey, fine-grained limestone, mottled in part with brownish-grey, medium-grained dolomite. The Palliser Formation is 200-220 m thick and commonly forms cliffs on east-facing exposures.

The Livingstone Formation (Mississippian Age) is composed of medium to thick bedded, light grey limestone. It consists of medium-grained crinoid-bryozoan rich grainstone and packstone with fine grained lime mudstone. Its upper half is characterized by interbeds of fine-grained dolomudstone, often cherty. The Livingstone Formation is about 350 m thick but in the Crowsnest and Deadman Pass areas it is thickened considerably by faulting.

The Mount Head Formation (Mississippian Age) overlies the Livingstone Formation and is characterized by grey to brown bioclastic limestone beds similar to the Livingstone Formation interbedded with horizons rich in dolomite and chert. The Mount Head Formation is approximately 300 M thick (Holter, 1976)

The region is dominated by a single structural feature, the Lewis Thrust, along which Precambrian and younger strata have been thrust eastward to now overlie Upper Cretaceous Belly River strata (Holter, 1976). The Lewis Thrust extends for more than 100 km north and south of the Crowsnest Pass area. The surface trace of the fault passes about 3.5 km east of the project area. The Lewis Thrust Sheet is composed of a homoclinely west dipping, north striking

TABLE 2: STRATIGRAPHIC COLUMN, CROWSNEST PASS AREA

GROUP FORMATION	LITHOLOGY	THICK. (METRES)	AGE
UNNAMED GLACIAL ALLUVIAL		0-60	QUATERNARY
PORCUPINE HILLS	grey-brown	1200-	PALEOCENE TERTIARY
WILLOW CREEK	grey	1250-	
ST. MARY RIVER FLOOD RESERVE UNIT	red-brown	900	UPPER CRETACEOUS
BEARPAW	dark grey	1-180	
BELLY RIVER	grey-green	760-1200-	
ALBERTA WAPIABI	black	300-600	
CARDIUM	black	3-90	
BLACKSTONE	black	75-140	
CROWSNEST	grey	0-330	LOWER CRETACEOUS
BLAIRMORE GROUP CADOMIN	grey to greenish grey	370-2000	
ELK	black	5-15	
ELK	black	0-430	
KOOTENAY	dark grey	80-440	U. M. L. JURASSIC
FERMIE	grey-black	180-300	
SPRAY RIVER WHITEHORSE	grey	0-55	U. M. L. TRIASSIC
SULPHUR MOUNTAIN	rusty brown	0-240	
RANGER CANYON	grey	0-20	U. M. L. PERMIAN
ISHBEL GROUP	black	0-75	
KANANASKIS	dark grey	0-66	M. L. PENNSYLVANIAN
MISTY	brown	13-670	
TOOHUNTER	red	0-21	UPPER LOWER MISSISSIPPIAN
ETHERINGTON	very impure	60-260	
MOUNT HEAD	buff grey	120-300	
LIVINGSTONE	light grey	240-430	
BANFF	grey	185-330	UPPER DEVONIAN
EXSHAW	black		
PALUSER	light grey	200-320	UPPER DEVONIAN
ALEXO	buff	6-32	
FAIRBANKS SOUTHEX M.T. KAWA	light grey	45-330	UPPER DEVONIAN
BORSATO	grey	18-45	
HOLLEBEKE	dark grey	100-120	MIDDLE CAMBRIAN
WINDSOR MOUNTAIN	light	70	
ELKO	grey	80-165	
GORDON	green	45-85	
FLATHEAD	grey	8-45	

LITHOLOGICAL SYMBOLS

- CONGLOMERATE
- SILTSTONE
- DOLOMITE
- CHERT
- CONCRETIONS
- SANDSTONE
- SHALE
- LIMESTONE
- COAL
- VOLCANICS

TRUNCATES REGIONALLY, PRECAMBRIAN UNITS OF THE PURCELL GROUP

Figure 2. Generalized stratigraphic column, Crowsnest Pass Area. (after Jackson, 1975)
IN: Macdonald and Hamilton, 1981

succession of sedimentary rocks. These rocks are cut by lesser west-dipping thrust faults which in the project area have resulted in local and regional thickening of the Palliser, Livingstone and Mount Head Formations. These thrust faults generally follow bedding and consequently are difficult to identify (MacDonald and Hamilton, 1981).

7. PREVIOUS WORK

Summit Lime Works Ltd. has been quarrying limestone for production of lime, hydrated lime and crushed limestone from quarries located in Alberta immediately south and southeast of the project area since 1903. Presently, limestone is being mined from Quarry #8, located approximately 300 m from the south boundary of the project area. However there is no known previous work with regard to the limestone potential of the area covered by the CMM claims.

1995 PROGRAM

The 1995 work on the property was implemented under Notice of Work Approval Number CBK 95-0500719-0001-M37, dated May 10, 1995.

a. Purpose

The purpose of the work on the CMM South project Area was to determine the chemical grade limestone potential of the area.

b. Scope

Field work on the project area was carried out between June 24 and Sept 15, 1995. The project was staffed by a geologist, A.W. Knox, and junior field assistants. The area surveyed in the course of the 1995 work was 0.93 km².

c. Methods

A chain and compass flagged grid was established for mapping control. A monument on the Alberta-British Columbia provincial boundary (abbreviated NBM) was used as the primary reference point for the property grid. It was given arbitrary grid coordinates of 10+00E and 20+00N. A baseline originating at the NBM was established for 600m north of the NBM at an azimuth of 350°. Flagged cross lines at 100m intervals were run to the east and west of the baseline. As well, a tie line was run at 350° from another provincial boundary monument (BBM) situated northeast of the NBM. A total of 4,287 m of grid lines were established (See Figure 3).

A controlled airphoto survey of the property was conducted by The Orthoshop, Calgary, Alberta, from which orthophotos at scales of 1:5,000 and 1:2,000 were produced. The property grid ("mine grid") is superimposed on the orthophotos (See Figures 4 and 5).

Using GPS methods, the actual location of the property grid was surveyed by Matai Surveys Ltd., Calgary, Alberta.

The grid lines were mapped and sampled. Outcrop is abundant in parts of the Livingstone Formation in the east, as well as along a prominent dip slope in the middle of

the Mount Head Formation. Outcrop is also abundant at the top of the Mount Head Formation and in the lower part of the Etherington Formation on the west side of the grid. Elsewhere rock exposure is sparse.

Rock samples for chemical analysis were taken from most outcrops of limestone estimated to be of chemical grade. Samples covering horizontal distances of between one and four metres were taken normal to strike if possible. The samples consist of discontinuous, evenly spaced chips. The samples were placed in plastic bags and marked with assay tag numbers. Each sample weighed at least 1.6 kg.

The samples were crushed to about -1 cm and a sample split weighing about 800 grams was obtained using a small riffle splitter. The sample split was sent to the Central Laboratory of Continental Lime Ltd. in Salt Lake City, Utah for analysis. The samples were analysed for CaCO_3 , MgCO_3 , SiO_2 , Fe_2O_3 , Al_2O_3 , MnO , SrCO_3 , BaO , K_2O , Na_2O , P_2O_5 , and TiO_2 by ICP. A description of the analytical procedures is given in Appendix 3.

d. Results: Stratigraphy

The project area is entirely underlain by unmetamorphosed strata of the Carboniferous Rundle Group, consisting of the Livingstone, Mount Head and Etherington Formations. High calcium limestone was identified in each of these formations.

i. Livingstone Formation

The Livingstone Formation is exposed on the east side of the grid, on a west facing slope which approaches a dipslope locally. However only the uppermost part of the Livingstone Formation is present in the project area.

The majority of the Livingstone formation consists of cherty dolomudstone to dolowackestone with lesser, relatively thin interbeds of medium-grained, crinoid-dominated lime grainstone (F2 unit). The chert is present as highly irregular, small shreds and nodules. At the extreme east side of the grid a thicker horizon of crinoid lime grainstone is present, which can be mapped separately (F3 unit). This horizon is about 8.5 m thick.

The uppermost unit of the Livingstone Formation (F1 unit) is an approximately 24 m thick horizon of light grey, medium- to coarse-grained, clean crinoid and bryozoan-crinoid lime grainstone. Outcrops of the F1 unit are typically massive. The thickness of the unit is very difficult to estimate accurately, due to the poor exposure and dipslope occurrence of the unit.

TABLE 3: TABLE OF FORMATIONS, CMM SOUTH AREA			
Formation	Unit*	Thickness (m)	Lithology
Etherington	A-1a	20+	Dolomudstone, cherty dolomudstone, bedded chert, grainstone, dolomitic siltstone
	A-1b1	=13	Brown, cryptocrystalline, massive lime mudstone
	A-1b2	=39	Black, granular limestone
	A-1b3	=22	Dark brown, cryptocrystalline lime mudstone
	A-1b4	=13	Black, granular limestone. Locally sandy.
Mount Head	A0a	=52	Dark brown, cryptocrystalline lime mudstone to wackestone. Local argillaceous partings.
	A0b	=22	Black, fine to very coarse grained "pebbly" lime wackestone to grainstone.
	A0c	=25	Lime mudstone to wackestone
	A1	=57	Dolomitic lime packstone to mudstone. Locally cherty.
	A2	19.6-26.9	Crinoid-oid lime grainstone.
	B1	7.8-8.5	Cherty dolomudstone.
	B2	3.4-4.3	Crinoid-oid lime grainstone
	B3	7.2-8.2	Dolomudstone to wackestone
	C1	3.8-7.5	Ooid-crinoid lime grainstone to packstone
	C2	12.6-14.4	Coarse to very coarse grained ooid lime grainstone
	C3	5.8-7.8	Fine grained lime packstone. Locally dolomitic.
	C4	0.6-2.0	Dolosandstone.
	D	32.8-33.2	Dolomudstone and cherty dolomudstone.
	E1	2.6-6.4	Shell-oid lime grainstone
	E2	1.6-6.2	Cherty dolomudstone.
	E3	1.9-5.4	Crinoid lime grainstone.
	E4	2.2-6.4	Dolomitic lime mudstone
	E5	5.3-11.9	Interclast-crinoid lime grainstone
E6	7.8-14.4	Dolomitic lime mudstone with grainstone to wackestone interbeds	
Livingstone	F1	=24	Bryozoa-crinoid lime grainstone
	F2	=42	Cherty dolomudstone with lime grainstone interbeds
	F3	=8.5	Crinoid lime grainstone to wackestone
	F4	25+	same as F2

* informal unit designations after Sherman (1990).

ii. Mount Head Formation

The lower contact of the Mount Head Formation with the underlying Livingstone Formation is not exposed in the project area. Further, the upper contact of the Mount Head Formation with the overlying Etherington Formation is rather arbitrarily placed and is interbedded-gradational.

The E unit occurs at the base of the Mount Head Formation. It is exposed in three outcrops on L21N, immediately north of the provincial border. The stratigraphically uppermost of these three outcrops is composed of medium- to coarse-grained, dark brown, ooid-shell-crinoid lime grainstone, rather poorly sorted. This lithology is typical of the E1 subunit, the uppermost grainstone horizon in the E unit. Stratigraphically lower outcrops are composed of dolomudstone and lime wackestone.

The D unit, composed of dolomudstone and cherty dolomudstone, is interpreted to be present, overlying the E unit, though no exposures of the D unit were found in the project area.

The third unit of the Mount Head Formation is the C unit. It is exposed just west of the baseline on lines 21N, 22N, 23N and 24N. The best exposure is on lines 21N and 22N on a long, prominent dipslope between $\approx 9+80E$ to $9+20E$. The limestone exposed on the dipslope is coarse-grained, medium grey crinoid-ooid lime grainstone typical of the C1 subunit.

An exposure immediately east of the dipslope on line 21N is of light grey ooid-rich lime grainstone of the C2 subunit. This, and another exposure of the C2 subunit on line 24N suggest that the flat area immediately east of the dipslope is underlain by the C2 subunit.

The C3 and C4 subunits are not exposed in the project area but are assumed to be present, covered by overburden, east of the dipslope.

The AB unit stratigraphically overlies the C unit and is composed of three subunits, lower (B), middle (A2) and upper (A1). The lower AB unit, consisting of silty dolomudstone, lime grainstone and cherty dolomudstone is not exposed in the project area.

The A2 subunit is exposed in isolated outcrops on line 20N and between lines 21 and 22N, more continuous exposures on breaks in slope on lines 18 and 19N and an unusual sidehill exposure on line 23N.

This A2 subunit is composed of dark to medium brown, fine- to coarse-grained lime grainstone. The unit fines upward, apparently without internal cyclicity. Outcrops of the subunit are typically massive, although thin laminations are sometimes developed on weathered exposures and it occasionally becomes thin bedded towards its top. The bioclasts are mainly eroded crinoid debris with occasional zones rich in ooids, especially near the top. In most samples of the A2 subunit, the bioclastic components are of indeterminate origin, presumably due to

abrasion.

The A2 subunit is overlain by the A1 subunit. This A1 subunit is not well exposed on the southern CMM claims. The A1 subunit is an overall fining upwards sequence with much internal cyclicity.

The lower two-thirds of the A1 subunit are composed of 2-5 m thick, stacked fining upward cycles. At the base these cycles are of lime grainstone to wackestone, generally somewhat dolomitic. At higher stratigraphic levels the cycles are of dolomitic packstone to lime mudstone, often containing chert in the fine-grained tops of the cycles.

The upper third of the AB unit is very poorly exposed in the project area; the only known exposures being two small outcrops on line 18N and a cliff exposure on line 24N. The outcrops on line 18N consist of fine-grained, thinly laminated, planar bedded, silty dolomudstone. The exposure on line 24N is similar to that on line 18N, with 20% 0.1 m thick chert bands.

The uppermost unit of the Mount Head Formation is the AO unit. Its lower contact with the upper AB unit is not exposed. The upper contact with the Etherington Formation is poorly defined, but has been placed for the purposes of this report at a change from predominately cryptocrystalline lime mudstone below to granular, fine- to medium-grained, locally sandy limestone above.

The AO unit consists of three subunits; a lower, very poorly exposed sequence of very fine-grained lime mudstone to wackestone (A0c), a middle subunit of fine- to coarse-grained "pebbly" lime wackestone (A0b) and an upper subunit of monotonous, very dark coloured cryptocrystalline lime mudstone (A0a).

The A0c subunit is only exposed on line 18N, where outcrops of very fine-grained lime mudstone and granular lime wackestone underlie the A0b subunit.

The middle subunit of the AO unit (A0b) is exposed on lines 18N, 19N and 22-25N. This subunit typically consists of a fine-grained, black granular rock in which are set small, elliptical clasts of cryptocrystalline lime mudstone around which the rock tends to break. In coarser grained sections these clasts can reach pebble size and are often associated with large, white crinoid ossicles and large bryozoans. The matrix appears to be lime mud, but locally there appears to be no lime mud matrix and the rock becomes a grainstone.

In some exposures, such as those on lines 23 and 24N, the A0b subunit appears to be arranged in fining upwards cycles, although there is no good data to suggest that the subunit as a whole fines upwards. Finer grained exposures of this subunit often display medium to thick bedding.

The uppermost subunit of the AO unit (A0a) is a distinctive lithology. It is well exposed in numerous, discontinuous outcrops on every line which crosses the subunit. The A0a subunit consists of a dark to very dark brown, cryptocrystalline (cryptocrystalline) lime mudstone. These rocks are quite brittle and often break with a conchoidal fracture. Occasionally a very fine granularity

can be discerned. Samples often contain small, thin-shelled fossils. A few horizons are very rich in medium sized pelecypod shells.

The A0a subunit underlies an area of open forest and meadow which can be followed on air photos. This subunit is typically exposed as linear outcrop areas composed of "mini cuestras" which rise 5-10 cm above the overburden. This "mini cuestra" type exposure is due to a medium to thick weathering out of bedding, possibly due to argillaceous partings, as the rock itself is massive in the extreme, completely unlayered.

Zones of shaly weathering were noted in a few spots, the best exposure of this feature being on line 21N, 7+58E where a zone of such weathering is 1.5 m thick. This style of bedding appears to be due to a close spacing of argillaceous partings.

Both contacts of the A0a subunit appear to be interbedded over a short distance.

iii. Etherington Formation

The Etherington Formation is the highest stratigraphic unit exposed in the project area. For mapping purposes the Etherington Formation has been subdivided into two informal subunits; a lower subunit of fine-grained granular limestone with interbeds of cryptocrystalline lime mudstone (A-1b) and an upper subunit of dolomudstone, cherty dolomudstone, lime grainstone, thick bedded chert and siltstone (A-1a). Both of these informal subunits are probably part of the lower Etherington as defined by Richards (1992).

The A-1b subunit of the Etherington Formation is composed of the same lithologies as the AO unit of the Mount Head Formation, in different proportions. The A-1b subunit is dominated by two thick bands of fine-grained, black granular limestone. This rock strongly resembles the matrix of the coarser "pebbly" lime packstones of the middle subunit of the AO unit, right down to the occasional presence in the A-1b subunit of sand-sized, elliptical, very fine-grained lime mudstone clasts and scattered white crinoid ossicles. Acid etch tests on samples of the fine-grained granular limestones at the very top of the A-1b subunit have revealed the presence of scattered sand-sized, yellowish quartz grains in some exposures.

Interbedded on a coarse scale with the fine-grained granular limestone are thick beds of cryptocrystalline lime mudstone to wackestone identical with the upper subunit of the AO unit. Two main horizons of this lithology have been identified in the A-1b subunit, with thicknesses of 17-15m and 20m.

The overlying upper subunit of the Etherington Formation (A-1a) crops out at the very west side of the grid area. It has been examined only in a cursory fashion. The base of the A-1a subunit is composed of fining upwards sequences of lime grainstone to cherty dolomudstone, apparently overlain by silty

dolomudstone, thick bedded, often coarsely porous chert and dolomitic siltstone. Beds of cryptocrystalline, dark brown lime mudstone, similar to rocks in the A-1b subunit of the Etherington Formation and the A0a subunit of the AO unit of the Mount Head Formation were noticed occasionally.

e. Results: Economic Geology

The mapping and sampling program on the CMM South Area was designed to explore for significant zones of chemical grade limestone.

Outcrops which were found upon analysis to contain horizons of chemical grade limestone occur in each of the Livingstone Formation, the Mount Head Formation and the lower informal subunit of the Etherington Formation.

The vast majority of rock exposures in the project occur as isolated outcrops or as short sections on breaks in slope. Long, completely exposed stratigraphic sections are not present, thus it was not possible to completely sample across prospective limestone zones. The samples taken indicate the presence of prospective chemical grade limestone zones in many instances. However exact thicknesses and grades of these zones could generally not be obtained, due to insufficient exposure.

The stratigraphic thickness for samples and units described below were generally obtained by converting the horizontally measured distance to stratigraphic thickness, by using the assumed dip at the site. Errors in the assumed dip make these measurements only approximate.

i. Livingstone Formation (See Table 3; Figure 3)

Four exposures of the F1 subunit of the Livingstone Formation were sampled, one on line 23N and three on line 21N. The sample on line 23N located near the top of the subunit returned 97.05% CaCO_3 from about 1.2 m of medium-grained crinoid-bryozoan lime grainstone. The three samples on line 21N gave 97.44%, 98.77% and 96.12% CaCO_3 from 1.0, 0.5 and ≈ 1.0 m of crinoid lime grainstone, respectively, the latter two containing ooid-rich horizons. The second and third samples are separated by an horizon of lime mudstone to packstone which was not sampled.

A single sample of a thin bed of ooid lime grainstone from the F2 subunit was sampled on line 21N and returned 95.35% CaCO_3 . This bed is about 1 m thick.

ii. Mount Head Formation (See Table 3; Figure 3)

E Unit

Three exposures of the E unit were sampled, one on line 21N and two on line 23N. The sample on line 23N is of weakly cherty dolomudstone, interpreted

to be the E4 subunit. This sample gave 82.32% CaCO₃. Of the two samples taken from line 21N the westernmost is of medium- to coarse-grained, dark brown ooid-shell-crinoid lime grainstone of the E1 subunit. This sample analysed 96.69% CaCO₃ over 2.5 m. The second sample is of medium bedded, fine- to medium-grained lime wackestone to wackestone interpreted to be the E4 subunit. This sample gave 96.30% CaCO₃ over about 2 m.

C Unit

The majority of the samples taken from the C unit are from the dipslope exposures on line 21N and just north of line 22N. On line 21N three samples were taken. From the base of the dipslope to the top, they returned 98.12%, 96.61% and 98.90% CaCO₃. The dipslope in this area appears to cut through the C1 subunit and thus these samples are arranged in descending stratigraphic order. A sample of the C2 subunit was found just east of this dipslope and gave 98.32% CaCO₃.

In the exposure just north of line 22N, a series of seven long chip samples were taken up the dipslope from base to top, topographically. All are from the C1 subunit. From the base of the dipslope to the top, the samples returned 98.27%, 98.60%, 98.67%, 98.23%, 94.42%, 97.86% and 98.66% CaCO₃. The one low sample, 94.42% contained 3.67% SiO₂ which was unexpected, as no silica was seen in the rock. This anomalous silica may be due to sample contamination.

Two isolated exposures of the C unit were sampled, one on line 23N and one on line 24N. The sample on line 23N of 0.1 m of crinoid-shell lime grainstone, presumed to be from the C1 subunit gave 95.99 % CaCO₃. The sample on line 24N is from an area of boulders, mainly of C2 ooid lime grainstone, with some C1 boulders. Chips of these boulders gave 95.28% CaCO₃.

AB Unit

A semi-continuous section of the middle and upper parts of the A2 subunit is exposed on a south facing slope just north of line 23N between 8+90E and 8+64E. This section exposes medium grey to brownish grey, fine- to medium-grained lime grainstone. Unlike exposures of the A2 subunit further south, this section appears to coarsen upwards and the ooid-rich rocks are towards the base of the sampled section. The section covers approximately 11.3 m stratigraphic and averages 98.38% CaCO₃. An isolated sample of the same unit lying 4 m west (stratigraphically above) the sampled section returned 97.34% CaCO₃ over 2 m horizontal.

Additional sampled exposures of the A2 subunit are located on lines 18N and 19N (short breaks in slope), on line 20N and between lines 21N and 22N

(isolated exposures). The results from this sampling are tabulated below.

TABLE 4
RESULTS OF SAMPLING
A2 SUBUNIT

Location	Stratigraphic Thickness (m)	Analytical Result (% CaCO ₃)
L 18N	5.5	97.82
L 19N	19.4	97.33
L 20N	1.4	97.75
L 21-22N	≈ 1	98.74

The section sampled on line 18N is overlain by scattered outcrop and boulders mapped in the field as A2 subunit grainstone. An area 10 m horizontal (≈ 7 m stratigraphic) was sampled and gave 83.98% CaCO₃, with 13.19% SiO₂ and 0.89% MgCO₃. This high silica content is again very unexpected, especially combined with the low magnesia. Contamination is suspected.

A1 Subunit

A section of the A1 subunit was sampled just north of the A2 subunit section sampled on line 23N. Four samples were taken in ascending stratigraphic order on a small cliff face. These returned 52.39%, 85.79%, 91.42% and 95.24% CaCO₃ respectively. Both MgCO₃ and SiO₂ were high in all samples.

AO Unit

Outcrops of the AO unit were sampled on every grid line from 18N to 25N. The results of the sampling will be discussed under the individual subunits.

A0c Subunit

No samples were taken from the A0c subunit.

A0b Subunit

Twelve samples were taken and analysed from the A0b subunit. Of these six were below 94% CaCO₃. The general trend is for the CaCO₃ value to increase upwards. The largest impurity in samples of the A0b subunit is MgCO₃; SiO₂ values are typically below 1%. The results are given in Table 5 below, with contiguous samples having been combined and averaged.

TABLE 5
RESULTS OF SAMPLING
AO UNIT
A0b SUBUNIT

Location	Stratigraphic Thickness (m)	Analytical Result (% CaCO ₃)	Stratigraphic Location
L 18N	2.0	97.62	middle
L 19N	2.3	89.49	base
	2.4	91.75	lower middle
	5.2	93.11	upper middle
L 22N	7.0	95.60	upper middle
L 23N	2.7	98.01	base
L 24N	2.4	91.43	base
	2.8	94.45	middle upper
L 25N	≈2.0	94.57	middle upper

A0a Subunit

Thirty samples of this unit were submitted for analysis, of which only one was below 94% CaCO₃. Again the major contaminant in these samples is MgCO₃. The analytical results are set out in Table 6 below with contiguous samples having been combined and averaged.

TABLE 6
RESULTS OF SAMPLING
A0a SUBUNIT

Location	Stratigraphic Thickness (m)	Analytical Result (% CaCO ₃)	Stratigraphic Location
L 18N	2.9	89.44	middle
L 19N	0.7	94.94	lower middle
	11.5	96.96	upper
	1.4	97.35	very top
L 20N	≈1.5	98.09	lower
	≈2.5	98.20	lower middle
	≈1.2	97.45	upper middle
L 21N	≈3	94.20	lower middle
	≈4	95.33	lower upper
L 22N	5.2	95.94	middle
	4.9	94.69	upper middle
	1.1	97.60	top
L 23N	3.1	96.98	middle lower
	2.0	97.49	middle
	3.6	97.22	lower upper
L 24N	2.8	97.18	lower
	3.2	96.28	upper middle
	2.4	97.55	lower upper
L 25 N	0.6	97.41	upper middle

iii. Etherington Formation (See Table 3; Figure 3)

The lower informal subunit (A-1b) of the Etherington Formation contains four mappable horizons, A-1b1 to A-1b4. Horizons a-1b1 and A-1b3 are composed of brown, cryptocrystalline lime mudstone whereas horizons A-1b2 and A-1b4 are composed of black, fine- to medium-grained, granular limestone.

The analytical results for each of these horizons are presented separately.

A-1b4 Horizon

Six samples of the A-1b4 horizon were taken for analysis. None of the samples are below 94% CaCO₃. MgCO₃ and SiO₂ are both present in about equal parts as contaminants. The analytical results are presented below in Table 7, with contiguous samples having been combined and averaged.

TABLE 7
RESULTS OF SAMPLING
ETHERINGTON FORMATION
A-1b4 HORIZON

Location	Stratigraphic Thickness (m)	Analytical Result (% CaCO₃)	Stratigraphic Location
L 19N	1.2	94.16	very base
L 20N	4.6	95.33	middle
L 22N	2.8	97.89	middle
L 24N	3.8	97.12	upper

A-1b3 Horizon

Nine samples of the A-1b3 horizon were taken. One of the samples is below 94% CaCO₃. MgCO₃ is again the most abundant deleterious compound. The analytical results of these samples are presented below in Table 8, with contiguous samples having been combined and averaged.

TABLE 8
RESULTS OF SAMPLING
A-1b3 HORIZON

Location	Stratigraphic Thickness (m)	Analytical Result (% CaCO ₃)	Stratigraphic Location
L 20N	2.2	97.08	middle
L 21N	3.2	96.82	lower
	3.2	96.30	middle-upper
L22 N	1.8	97.70	lower upper
L 23N	7.2	97.36	lower
	1.15	93.02	very top
L 24N	3.0	96.26	upper lower

A-1b2 Horizon

The A-1b2 horizon is the thickest of the four mappable horizons in the A-1b subunit. A total of 19 samples from this horizon were taken for analysis. Only one of the samples is below 94% CaCO₃. Table 9 below contains the analytical results of these samples, with contiguous samples having been combined and averaged.

TABLE 9
RESULTS OF SAMPLING
A-1b2 HORIZON

Location	Stratigraphic Thickness (m)	Analytical Result (CaCO ₃)	Stratigraphic Location
L 18N	2.2	95.75	lower upper
L 19N	1.3	96.25	upper middle
	2.3	96.76	lower upper
L 20N	1.9	95.12	lower
	1.6	93.52	middle
	2.0	96.59	upper
L 21N	1.5	95.20	lower middle
	3.5	96.84	middle
L 22N	1.7	96.48	lower middle
	2.3	97.02	lower upper
	1.8	96.99	upper
	1.1	97.40	upper upper
L 23N	1.45	96.37	very base
	1.1	97.10	upper lower
	2.3	97.28	upper
	3.6	94.94	upper upper
L 24N	1.6	96.71	lower
L 25N	0.5	96.01	base

A-1b1 Horizon

The uppermost horizon of the lower Etherington Formation is the A-1b1, which is composed of brown, cryptocrystalline lime mudstone. This relatively narrow unit is well exposed and 10 samples of it were taken for analysis. As is typical for horizons or units composed of cryptocrystalline lime mudstone on the claims, the main contaminating component in the A-1b1 horizon is $MgCO_3$. The results are tabulated in Table 10 below, with contiguous samples having been combined and averaged.

TABLE 10
RESULTS OF SAMPLING
A-1b1 HORIZON

Location	Stratigraphic Thickness (m)	Analytical Result ($CaCO_3$)	Stratigraphic Location
L 18N	3.5	98.01	lower middle
L 19N	7.8	97.56	lower-middle
L 20N	3.3	97.28	middle
L 21N	1.8 2.6	96.98 97.49	lower middle
L 22N	4.8	96.71	middle
L 23N	3.7	97.62	upper
L 24N	5.0	96.41	lower-middle

Upper Informal Subunit

The upper subunit of the Etherington Formation is generally composed of low calcium lithologies (for example dolomudstone, chert and silty rocks). However relatively thin interbeds of lime grainstone and cryptocrystalline lime mudstone were noted in a few places and three samples of these rocks were taken for analysis. A sample of cryptocrystalline lime wackestone containing 10% fine

bioclasts returned 96.73% CaCO₃ over approximately 1.6 m at the very west end of line 21N. An outcrop of fine-grained, black granular limestone found between outcrops of silty dolomudstone and bedded chert gave 95.00% CaCO₃ over 1.3 m at the west end of line 24N. Finally, an exposure of strongly petroliferous medium- to coarse-grained, crinoid lime grainstone returned 95.67% CaCO₃ over 1.0 m at 4+62E on line 25N.

2. REFERENCES

- Fischl, P. (1992). Limestone and dolomite resources in British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources, Geol. Survey Branch, Open File 1992-18.
- Holter, M.E. (1976). Limestone resources of Alberta. (Economic Geology Report 4). Alberta Research Council.
- Holter, M.E. (1989). An evaluation of Alberta limestones for use as paper filler materials. Minprobe Consultants for the Alberta Geological Survey.
- Holter, M.E. (1994). A review of Alberta limestone production, marketing, distribution and future development possibilities. Alberta Research Council, Open File Report 1994-15.
- Macdonald, D.E. & Hamilton, W.N. (1981). Limestone prospects in the vicinity of Crownsnest Pass: A preliminary assessment. Alberta Geological Survey, Alberta Research Council.
- Price, R.A. (1961). Geology Fernie (East Half), British Columbia-Alberta. Paper 61-24, Geological Survey of Canada.
- Sherman, W.A. (1990). Report on limestone reserves, Quarry #8. Private report, Summit Lime Works Ltd., Coleman, Alberta.

10. STATEMENT OF EXPENDITURES

GRAND TOTAL EXPENDITURES: \$22,240.14

(a) **PERSONNEL:**

		TOTALS
(i)	A. W. Knox, Geologist;	
	Fieldwork: 11.0 days @ \$428/day June 24; July 7, 8, 10, 12, 13, 14, 15, 18, 25, 27; August 2, 3, 27, 28, 29; September 1, 2.	\$ 4,708.00
	Report: 4.5days @ \$428/day	\$ 1,926.00
(ii)	R. Johnson, Junior Assistant;	
	10.0 days @ \$115/day June 24; July 7, 8, 10, 12, 13, 14, 15, 18, 25, 27; August 2, 3.	\$ 1,150.00
(iii)	Matthew Halton, Casual Labour;	
	4.0 days @ \$70.40/day August 31; September 1, 6, 7, 8, 13.	\$ 281.60
(iv)	Michael Summes, Casual Labour;	
	6.0 days @ \$70.40/day August 27, 28, 29, 30, 31; September 1, 2, 5.	\$ 422.40
(v)	Jeff Strachan, Casual Labour;	
	5.52 days @ \$70.40/day August 30, 31; September 1, 2, 3, 4.	\$ 388.61

TOTALS

(a) **PERSONNEL (Continued):**

(vi)	Darren Marty, Casual Labour;	1.2 days @ \$70.40/day September 4	\$ 84.48
(vii)	Ben Jelik, Casual Labour;	3.56 days @ \$70.40/day August 31; September 2, 3, 4, 16.	\$ 250.62
(viii)	Ike Jelik, Casual Labour;	0.72 days @ \$70.40/day September 16.	\$ 50.69
(ix)	John Hinde, Land Surveyor;	1.5 days @ \$200.00/day August 3, 4.	\$ 300.00
(x)	J. N. Schindler, Geologist;	Fieldwork: 3.5 days @ \$475/day August 2, 16, 30, 31; September 1.	\$ 1,662.50
		Report: 3.0 days @ \$475/day	\$ 1,425.00
		Subtotal Personnel:	\$ 12,649.90

(b) ACCOMMODATION AND FOOD:

TOTALS

(i)	A. W. Knox	June 16, 24; July 7, 8, 10, 12, 13, 14, 15, 16, 18, 25, 27; August 2, 3, 27, 28, 29; September 1, 2 (Pro-rated).		
	Motel:	11.0 days @ \$47.60/day	\$	523.60
	Food:	11.0 days @ \$21.40/day	\$	235.40
(ii)	R. Johnson	June 24; July 7, 8, 10, 12, 13, 14, 15, 25, 27. August 2, 3.		
	Motel:	10.0 days @ \$47.60/day	\$	476.00
	Food:	10.0 days @ \$21.40/day	\$	214.00
(ix)	John Hinde	August 3, 4 (Pro-rated).		
	Motel:	1.5 days @ \$47.60/day		\$71.40
	Food:	1.5 days @ \$21.40/day		\$32.10
(x)	J. N. Schindler	June 16; August 2, 16, 30, 31; September 1.		
	Motel:	3.5 days @ \$47.60/day	\$	166.60
	Food:	3.5 days @ \$21.40/day	\$	74.90
		Subtotal Accommodation and Food:	\$	1,794.00

(c) TRANSPORTATION:

	TOTALS
1,984 km @ \$0.35/km (Includes project mob/demob)	\$ 694.40
Subtotal Transportation:	\$ 694.40

(d) INSTRUMENT RENTAL:

	TOTALS
August 3, 4.	
EDM, tripod, prism rental: 1.75 days @ \$150/day	\$ 262.50
Subtotal Instrument Rental:	\$ 262.50

(e) NOT APPLICABLE

(f) ANALYTICAL COSTS:

	TOTALS
138 rock samples analysed by ICP for CaCO ₃ , MgCO ₃ , SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , MnO, SrCO ₃ , BaO, K ₂ O, NaO ₂ , P ₂ O ₅ , and TiO ₂ .	
Shipping: Calgary to Salt Lake City, Utah	\$ 261.68
Analyses: 138 samples @ \$9.00/sample	\$ 1,242.00
Subtotal Analytical Costs:	\$ 1,503.68

(g) REPORT PREPARATION:

	TOTALS
Drafting, typing, reproduction, and assembly	\$ 575.00
Subtotal Report Preparation:	\$ 575.00

(h) OTHER COSTS:

	TOTALS
(i) Controlled Airphoto Survey: Photogrammetry by The Orthoshop; Survey control by Matai Surveys Ltd., both of Calgary, Alberta.	
Survey control targets:	\$ 386.08
Helicopter for survey control:	\$ 268.18
Airphotography:	\$ 213.80
Contact prints:	\$ 44.66
Orthophotos 1:2,000 and 1:5,000:	\$ 1,385.35
Subtotal Controlled Airphoto Survey:	\$ 2,298.07
(ii) GPS Survey of CMM South Area Grid: Matai Surveys Ltd., of Calgary, Alberta.	
Fieldwork: Conducted Aug. 31 to Sept. 2, 1995 (includes report).	\$ 2,462.59
Subtotal Other Costs:	\$ 4,760.66

CERTIFICATION

I, Alexander W. Knox, of the City of Calgary, in the Province of Alberta, do hereby declare that:

1. I am registered as a Professional Geologist in the Province of Alberta with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (Number 051311).
2. I am a Fellow of The Geological Association of Canada.
3. I am a practising consulting geologist with my office located at 2233 4th Avenue N.W., Calgary, Alberta, T2N 0N8.
4. I hold the following degrees: (1976) B. Sc. (Geology) and (1980) M. Sc. (Geology), both of which were obtained from the University of Calgary, Alberta.
5. I have practised my profession for over sixteen years and have held permanent positions with Westmin Resources Ltd. and with Union Oil Company of Canada Ltd. (now Unocal Canada Ltd.) for 10 ½ years.
6. I have no financial interest in either the property discussed in this report or in Ecowaste Industries Ltd..
7. This report is based on my field observations of all outcrops and samples discussed herein, and on a review of the references cited.



Signed: A. W. Knox

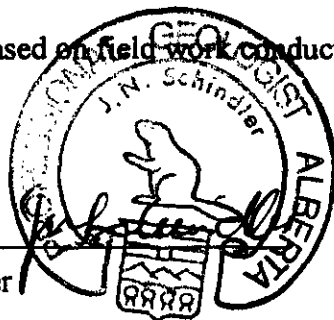
December 3, 1995

CERTIFICATION

I, John Norman Schindler, of the City of Calgary, in the Province of Alberta, do hereby declare that:

1. I am registered as a Professional Geologist in the Province of Alberta with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (Number 30227).
2. I am a practising consulting geologist with my office located at 22 Lake Christina Close S.E., Calgary, Alberta, T2J 2R9.
3. I hold the following degrees: (1960) B. Sc. (Hons. Geology), McGill University, Montreal, Quebec; (1963) M. Sc. (Mining Geology), University of London, England; (1975) Ph. D. (Geology), McMaster University, Hamilton, Ontario.
4. I have practised my profession since graduation and have held permanent positions with The Iron Ore Company of Canada Ltd., Amax Exploration Inc., Western Mines Ltd. (Now Westmin Resources Ltd.), and Union Oil Company of Canada (now Unocal Canada Limited). I have practised as a consulting geologist since 1981.
5. I have no financial interest in either the property discussed in this report or in Ecowaste Industries Ltd..
6. This report is based on field work conducted by me and on a review of the references cited.

Signed: J. N. Schindler



December 3, 1995

PERMIT TO PRACTICE	
SCHINDLER EXPLORATION CONSULTANTS LTD.	
Signature	<i>J. N. Schindler</i>
Date	<i>Dec. 3, 1995</i>
PERMIT NUMBER: P 3437	
The Association of Professional Engineers, Geologists and Geophysicists of Alberta	

APPENDIX 1

SAMPLE DESCRIPTIONS AND ANALYTICAL RESULTS

SAMPLE DESCRIPTIONS AND ANALYTICAL RESULTS

CMM South Area

June-August, 1995

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C2556	L18N 9+45-9+61E	16 mh	C1	Medium grey, coarse-grained, crinoid-bearing C1 grainstone	98.55	0.98	0.27
C2577	16 m @ 235° from L20N, 7+00E		A0a	Thickly bedded, medium chocolate brown, featureless, cryptocrystalline lime mudstone.	98.09	1.12	0.46
C2578	14 m @ 299° from L20N, 8+75E	≈0.5 ms	A2	Medium brown, completely massive f-medium-grained grainstone. Bioclasts indeterminate.	97.75	0.91	0.67
C2579	L18N 7+10-7+30E	2 ms	A0b	Black, fine-very coarse-grained "pebbly" limestone. Contain crinoids and bryozoans	97.62	1.52	0.38
C2580	9 m @ 346° from L18N, 8+75E	2.5 ms	A2	Medium grey-brown, well packed, massive lime grainstone	96.90	0.89	0.69
C2581	L18N 8+65-8+75E	≈7 ms	A2	Same as C2580	83.98	1.97	13.19
C2582	L18N 8+75-8+80E	3 ms	A2	Same as C2580	98.56	0.83	0.34
C2583	L18N 9+22-9+47E	≈3 ms	C1	Dipslope outcrop of medium-grained, medium grey-green ooid-crinoid lime grainstone	97.28	1.17	0.22
C2614	L22N 6+75-6+83E	8 mh	A0a	Cryptocrystalline, very dark brown, unlayered, coarsely bedded lime mudstone.	95.94	1.78	0.85

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C2615	18 m @ 188° from L22N, 7+25E	2 ms	A0b	Medium-very, very coarse-grained, black to very dark brown lime grainstone to packstone. Abundant. elliptical "granules". Common crinoid ossicles, rare bryozoans and brach. arranged in fining upwards cycles at least 1 m thick.	92.95	3.84	0.87
C2616	overlies C2615	2 ms	A0b	Same as C2615	94.92	2.58	0.77
C2617	overlies C2616	3 ms	A0b	Same as C2615	97.82	1.63	0.45
C2618	20.5 m @ 31 7° from L22N, 9+50E	7m along slope	C1	Ooid-crinoid, well sorted, thickly bedded lime grainstone. Dipslope exposure	98.27	0.85	0.24
C2619	upslope from C2618	7m along slope	C1	Same as C2618	98.60	0.82	0.28
C2620	upslope from C2619	7m along slope	C1	Same as C2618	98.67	0.83	0.28
C2621	31.7 m @ 319° from L22N, 9+75E	7m along slope	C1	Same as C2618	98.23	0.83	0.43
C2622	upslope from C2621	10.8 m along slope ≈3 ms	C1	Same as C2618	94.42	0.96	3.67

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C2623	upslope from C2623	10.9 m along slope ≈ 0.5 ms	C1	Same as C2618	97.86	0.88	0.47
C2624	18.5 m @ 276° from L22N, 10+00E	4.3 m along slope ≈ 2.5 ms	C1	Same as C2618	98.66	1.04	0.38
C2625	L21N 5+97-6+01E	4 mh	A-1b3	Very fine-grained, very dark brown lime mudstone. Brittle, chippy. Conchoidal fracture	96.30	1.40	0.69
C2626	L21N 6+09-6+13E	4 mh	A-1b3	Same as C2625	96.82	1.47	0.94
C2627	L21N 6+50-6+55E	≈ 4 ms	A0a	Massive, black lime mudstone. Scattered clusters of 2-3 cm pelecypod shells. Local fine granularity.	95.33	1.33	1.44
C2628	L21N 6+75-6+79E	≈ 3 ms	A0a	Cryptocrystalline, medium brown, chippy lime mudstone.	94.20	3.14	1.01
C2629	L21N 9+50-9+53E	≈ 0.25 ms	C1	Medium brownish grey, medium-grained, crinoid-rich lime grainstone. dipslope exposure.	98.12	1.18	0.33
C2630	20+95.5N 9+67E	3 mh	C1	Medium greenish grey, coarse-grained crinoid-oid lime grainstone.	96.61	1.38	0.69
C2631	21+05N 9+75E	4 mh	C1	Medium greenish grey, medium-grained lime grainstone. Very top of dipslope.	98.90	0.85	0.29
C2632	L21N 9+76.5-9+80E	3.5 mh	C2	Scattered boulders of light grey lime grainstone.	98.23	0.83	0.28

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C2894	23+01N 9+50E	0.1 ms	C1	Medium grey, medium-grained, massive crinoid-shell lime grainstone	95.99	2.00	1.74
C2895	13.6 m @ 279° from L23N, 9+00E	4.7 mh @ 316°	A2	Fine-medium-grained ooid-crinoid lime grainstone.	98.21	0.92	0.52
C2896	overlies C2895	2.9 mh @ 321°	A2	Same as C2895. Hard, well indurated.	98.00	0.83	0.41
C2897	overlies C2896	4.2 mh @ 311°	A2	Same texture as C2895 but no ooids. Most bioclasts indeterminate.	98.01	0.95	0.85
C2898	overlies C2897	1.65 mh @ 275° 0.6 ms	A2	Medium bedded, medium-grained, lime grainstone.	97.01	1.97	0.48
C2899	overlies C2898	1.7 mh @ 252° 0.5 ms	A2	Fine-medium-grained, light green lime grainstone. Massive to thickly bedded. Crinoid-bearing, with most bioclasts indeterminate.	98.35	1.06	0.44
C2900	overlies C2899	2.1 mh @ 275° ≈ 1.1 ms	A2	Fine-grained, very hard, light green lime grainstone.	97.86	1.40	0.43
C3001	overlies C2900	2.1 mh @ 277° 1.2 ms	A2	Similar to below.	98.38	0.95	0.31
C3002	overlies C3001	2.2 mh @ 289° 1.4 ms	A2	Massive at base grading to thinly bedded at top. slightly coarser-grained than below.	98.41	0.92	0.36

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3003	17.9 m @ 328° from L23N, 8+75E	2.65 mh @ 282° 1.2 ms	A2	Medium-grained crinoid lime grainstone. Slightly darker coloured than below.	98.36	0.91	0.54
C3004	L20N 6+68.5- 6+72.5E	≈2.5 ms	A0a	Very fine-grained, slightly granular to fine-grained granular, dark grey-brown lime mudstone. Massive. Locally wackestone. A waxy yellow 2 mm blob present.	98.20	1.21	0.28
C3005	L20N 6+57E	≈1.2 ms	A0a	Dark brown, cryptocrystalline fine-grained lime grainstone. No bioclasts. Chippy, Conchoidal fracture. Thickly bedded. Relatively light coloured.	97.45	1.16	0.88
C3006	L20N 6+28-6+31E	3 mh	A-1b4	Black, fine-grained granular lime grainstone? Granularity looks primary. Medium bedded.	95.12	2.45	1.16
C3007	L20N 6+28-6+24E	3 mh	A-1b4	Same as C3006. Thinly bedded	95.49	1.66	2.21
C3008	L20N 6+05- 6+08.5E	3.5 mh	A-1b3	Dark chocolate brown, cryptocrystalline lime mudstone. 5-15% very fine-grained disseminated bioclasts. Some fine black fracture filling.	97.08	1.19	0.58
C3009	L20N 5+81-5+84E	3 mh	A-1b2	Massive, black, fine-grained, granular limestone. Silty? Coarser grained horizons look like fine-grained "pebbly" limestone	95.12	1.27	2.96
C3010	9 m @ 279° from L20N, 5+75E	2.5 mh	A-1b2	Fine-grained, black granular limestone. Definite fine-grained "pebbly" texture, sand-sized, elliptical black lime clasts in a black fine-grained matrix. Grain size fining upwards.	93.52	4.29	1.26
C3011	15 m @ 007° from L20N, 5+50E	2 ms	A-1b2	Fine-medium-grained, sparkle-granular black limestone. Medium to thin bedded, bedding planes wavy.	96.59	1.35	0.96

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3012	4.5 m @ 051° from L20N, 5+25E	5 mh	A-1b1	Very dark brown, cryptocrystalline fine-grained lime mudstone. Occasional slight granularity. Slight fractured, filled with white calcite.	97.28	1.32	0.87
C3013	L25N 7+07.5- 7+05.5	≈2 ms	A0b	F-medium-grained "conglomeratic" limestone. Small pebbles of cryptocrystalline fine-grained limestone with scattered crinoids and bryozoa in a fine-grained matrix. Pebbles perhaps 30-50% of rock.	94.57	3.67	0.50
C3014	24+97N, 6+50E	≈0.6 ms	A0a	Dark brown, cryptocrystalline lime mudstone. Quite homogeneous.	97.41	1.23	0.83
C3015	5.1 m @ 315° from end C3003	2 mh @ 005°	A2	M-coarse-grained, medium brownish grey lime grainstone. Almost entirely composed of well packed, eroded crinoid ossicles. Massive.	97.34	1.00	1.32
C3016	underlies C3017	1 ms	A1	Light grey, medium bedded silty dolomudstone. upper contact sharp.	52.39	28.93	10.65
C3017	underlies C3018	1.2 ms	A1	M-coarse-grained, medium grey lime grainstone. Clast indeterminate	85.79	9.50	3.60
C3018	underlies C3019	1.7 ms	A1	Same as C3017 except for 2 thin interbeds of silty(?) bryozoan dolomudstone.	91.42	5.91	1.97
C3019	31.6 m @ 044° from L23N, 8+25E	≈2 ms	A1	Coarse-grained crinoid lime grainstone at base to fine-grained lime packstone at top.	95.24	2.78	1.52
C3020	20.4 m @ 117° from L23N, 7+50E	2.7 ms	A0b	Massive, m-dark brown, medium-grained lime grainstone. Contains rounded limestone pebbles and white crinoid ossicles.	98.01	1.20	0.40

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3021	L23N 7+10.4- 7+06E	4.6 mh	A0a	Very finely granular, cryptocrystalline fine-grained, dark brown lime mudstone. 1 m section of shaly partings.	96.98	1.57	0.82
C3022	L23N 6+76-6+73E	3 mh	A0a	Very dark brown cryptocrystalline fine-grained lime mudstone. Slight granularity. Narrow zones have scattered, coarse bioclastic debris.	97.49	1.64	0.41
C3023	6.7 m @ 253° from L23N, 6+50E	2.05 mh	A0a	Dark brown, massive, cryptocrystalline lime mudstone. Chippy.	95.06	3.64	0.85
C3024	underlies C3023	3.35 mh	A0a	Same as C3023 but even purer. Occasional thin, curved shell fragments.	97.27	1.34	0.93
C3025	19.4 m @ 050° from L23N, 6+00E	3.9 mh	A-1b3	Medium-dark brown, cryptocrystalline lime mudstone. Moderate fractured. Brittle and chippy. 5-10% very fine-grained disseminated bioclasts. Looks like good rock.	97.13	1.11	0.60
C3026	overlies C3025	3.1 mh	A-1b3	Same as C3025	97.29	1.31	0.80
C3027	overlies C3026	3.2 mh	A-1b3	Same as C3025	97.72	1.02	0.25
C3028	4.6 m @ 072° from L23N, 5+75E	1.15 mh	A-1b3	Typical cryptocrystalline lime mudstone	93.02	4.07	1.13
C3029	overlies C3028	1.45 mh	A-1b2	Medium-coarse-grained, black lime grainstone. Coarser varieties contain abundant, large, white crinoid ossicles. "Pebbly"	96.37	1.26	0.38

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3030	17 m @ 129° from L25N, 5+50E	0.5 ms	A-1b2	Black, fine-grained, granular limestone. Occasional small, white crinoid ossicles.	96.01	1.18	0.77
C3031	13.1 m @ 287° from L25N, 4+75E	1.5 mh	A-1a	Strongly petroliferous, Medium-coarse-grained, dark grey. homogenous crinoid lime grainstone. Pyrobitumen-stained.	95.67	2.85	0.55
C3032	L24N 4+77-4+75	2 mh	A-1a	Black, fine-grained, granular limestone. Looks like a sandstone.	95.00	2.89	1.22
C3033	L24N 5+12-5+20E	8 mh	A-1b1	Dark brown, cryptocrystalline lime mudstone. Non-granular. Brittle, Conchoidal fracture.	96.41	1.36	0.83
C3034	L24N 5+63- 5+65.5E	2.5 mh	A-1b2	Fine-grained, black, granular limestone. Homogeneous except for scattered white, circular to irregular white calcite bodies. Massively bedded.	96.71	1.40	1.12
C3035	L24N 6+01.7- 5+96.5E	5.2 mh	A-1b3	Dark brown cryptocrystalline lime mudstone. Typical	96.26	1.89	0.92
C3036	7.0 m @ 197° from L24N, 6+25E	2.8 mh	A-1b4	Cryptocrystalline lime mudstone	97.11	1.10	1.05
C3037	overlies C3036	3.1 mh	A-1b4	Fine-grained, black, granular limestone	97.28	1.12	0.65
C3038	6.85 m @ 084° from L24N, 6+50E	3.45 mh	A0a	Cryptocrystalline lime mudstone	97.55	1.18	0.63

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3039	9.9 m @ 116° from C3038	4.5 mh	A0a	Very fine-grained, granular lime mudstone with small vugs filled with white, crystalline calcite. Almost a hybrid of the cryptocrystalline fine-grained and granular rock types.	96.28	1.14	0.79
C3040	23+98N, 6+84-6+86E	2 mh	A0a	Cryptocrystalline lime mudstone. One of the purest examples yet seen.	97.51	1.06	0.88
C3041	23+98N, 6+86-6+88E	3 mh	A0a	Same as C3040.	96.84	1.06	1.14
C3042	23+95N, 7+25 E	4 mh	A0b	Fine-grained, black, granular limestone. 5-10% small, white crinoid ossicles. Coarser grained sections have "pebbly" limestone texture.	94.45	3.26	1.13
C3043	9.7 m @ 312° from L24N, 7+75E	3.5 mh ≈ 2 ms	A0b	Dark brown, medium-grained crinoid grainstone. Crinoid ossicles are white. An horizon is rich in pebbles.	91.43	5.60	1.60
C3044	10.0 m @ 244° from L24N, 10+00E	?	C2	Area of boulders of ooid lime grainstone.	95.24	2.54	1.59
C3045		≈ 1 ms	A2	Medium-coarse-grained, medium brownish grey crinoid (ooid) lime grainstone.	98.74	0.69	0.27
C3046	8.6 m @ 224° from L21N, 5+75E	1.5 ms	A-1b2	Fine-grained, black, granular limestone. Rare pebbles and crinoid ossicles. Massive at base to thinly bedded at top. Cyclic?	95.20	1.73	1.46
C3047	5 m @ 125° from L21N, 5+00E	≈ 2.3 mh	A-1a	Medium-dark brown, cryptocrystalline lime mudstone. Completely non-granular. Often contains 10% disseminated bioclasts?	96.73	1.22	1.12

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3048	11.3 m @ 352° from L21N, 5+25E	2.5 mh	A-1b1	Very, very dark brown, slightly granular cryptocrystalline lime mudstone.	96.98	2.02	0.65
C3049	underlies C3048, separated by 1.9 mh	3.5 mh	A-1b1	Same as C3048, lighter coloured	97.49	1.14	0.80
C3050	20+95N, 5+59E	2,5 mh	A-1b2		96.84	1.49	0.53
C3051	23 m @ 335° from L22N, 6+75E	4.4 mh	A0a	Dark to very dark brown cryptocrystalline lime mudstone. Typical. Some granular zones	93.01	1.44	4.94
C3052	overlies C3051	2.2 mh	A0a	Same as C3051, but purer.	97.00	1.38	0.87
C3053	14.7 m @ 072° from L22N, 6+25E	1.6 mh	A0a	Cryptocrystalline lime mudstone.	97.60	0.77	1.15
C3054	L25N 6+25E	4 mh	A-1b4	Fine-grained, black equigranular lime mudstone. Minor scattered fine-grained crinoid ossicles.	97.89	0.51	0.56
C3055	5.5 m @ 334° from L22N, 6+00E	2.5 mh	A-1b3	Moderate well bedded, cryptocrystalline, dark brown lime mudstone.	97.70	1.34	0.64
C3056	13.2 m @ 310° from L22N, 5+75E	2.7 mh	A-1b2	Moderate bedded, fine-grained, black, granular limestone.	96.48	1.53	1.13

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3057	L22N 5+52.3- 5+55.8E	3.5 mh	A-1b2	F-medium-grained, black, granular limestone. Occasional white calcite-filled fractures.	97.02	1.44	0.79
C3058	16.2 m @ 310° from L22N, 5+50E	2.8 mh	A-1b2	Similar to C3057, slight finer grained.	96.99	1.22	0.52
C3059	9.2 m @ 210° from C3058	1.7 mh	A-1b2	Cryptocrystalline lime mudstone with some interbedded granular rock.	97.40	1.16	0.41
C3060	5.2 m @ 350° from C3059	1.4 mh	A-1b2	Overlies C3059. Entirely cryptocrystalline lime mudstone.	97.74	1.16	0.59
C3061	23.6 m @ 014° from L22N, 5+25E	3.0 mh	A-1b1	Cryptocrystalline, dark brown lime mudstone. Anomalously fractured.	97.42	1.79	0.29
C3062	overlies C3061	4.4 mh	A-1b1	Same as C3061	96.23	1.65	0.65
C3063	8.3 m @ 320° from L21N, 10+75E	3.6 mh	E1	Medium-coarse-grained, dark brown ooid-shell-crinoid lime grainstone, rather poorly sorted. Upper parts of exposure medium bedded. May coarsen upwards.	96.69	1.71	0.67
C3064	L21N 11+01.5- 11+05E	3.5 mh	E4?	Plane bedded, fine-medium-grained lime packstone to wackestone. Brachiopod-crinoid-bryozoan. Mud matrix fairly granular.	96.30	2.05	0.37
C3065	20+83N, 11+85E	≈ 1 ms	F1	Coarse-grained, poorly sorted crinoid(bryozoan) lime grainstone with lesser medium-grained grainstone and coarse-grained packstone. Occasionally disseminated dolomite.	97.44	1.51	0.43

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3066	L21N 12+00E	0.5 ms	F1	Light grey, crinoid and ooid-crinoid lime grainstone. Clean	98.77	0.77	0.26
C3067	L21N 12+33- 12+38E	5 mh	F1	Medium-grained, light brownish grey, indeterminate clast lime grainstone. Occasional ooid-rich horizons. Chips of boulders.	96.12	2.89	0.43
C3068	L21N 12+95- 13+10E		F2	Chips of metre thick ooid lime grainstone interbeds in cherty dolomudstone.	95.35	1.57	2.30
C3070	L23N 11+72- 11+75E	≈ 1.2 ms	F1	Medium-grained, light grey crinoid-bryozoan lime grainstone. Both "brush" and "weave" bryozoans present.	97.05	1.20	1.02
C3071	L23N 11+10- 11+25E	≈ 3 ms	E4?	Cherty dolomudstone with some interbedded lime grainstone.	82.32	3.55	13.25
C3072	L18N 5+33-5+38E	5 mh	A-1b1	Dark brown, cryptocrystalline lime mudstone. Slight granular texture.	98.01	1.08	0.44
C3073	L18N 5+58-5+61E	3 mh	A-1b2	Black, medium-grained "pebbly" lime grainstone. Scattered white crinoid ossicles. Rock breaks both around and across pebbles. Medium bedded.	95.75	1.68	1.27
C3074	13.1 m @ 324° from L18N, 6+75E	4 mh	A0a	Fine-grained, massive, sugary-granular (silty?) wackestone. Contains coarse, white calcite bodies. Lower third is granular cryptocrystalline lime mudstone.	89.44	9.36	0.69
C3075	L19N 8+70.8E	4.8 mh	A2	Medium brown, fine-grained lime grainstone. To sample C3078 colour darkens and grain size fines upwards	98.45	0.85	0.22

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3076	overlies C3075	2.9 mh	A2	See C3075	98.38	0.81	0.59
C3077	overlies C3076	2.3 mh	A2	See C3075	97.72	0.83	0.78
C3078	overlies C3077	2.0 mh	A2	See C3075	98.19	0.95	0.51
C3079	9.8 m @ 098° from L19N, 8+75E	1.6 mh	A2	Light brown, Medium-coarse-grained lime grainstone.	98.56	0.76	0.45
C3080	L19N 8+61.6-8+71E	9.4 mh	A2	Fine-grained, medium brown, glassy, almost sugary lime grainstone. Bioclasts equigranular, indeterminate. Some disseminated, subhedral dolo. xtals.	96.53	2.14	0.90
C3081	L19N 8+54.5-8+61.6	6.1 mh	A2	Same as C3080, darker coloured.	96.41	2.56	0.86
C3082	L19N 7+32-7+35.3E	3.3 mh	A0b	Fine-medium-grained "pebbly" limestone to fine-grained granular limestone. Some are medium grey and quite granular (strongly dolo.?)	89.49	8.11	1.05
C3083	9 m @ 180° from L19N, 7+25E	3.4 mh	A0b	Pebbles of black, very fine-grained limestone set in a matrix of very fine-grained limestone. Occasional crinoids and bryozoa, both "brush" and "weave" types.	91.75	6.68	0.43
C3084	Underlies C3085	4.1 mh	A0b	Very top of "pebbly" limestone. Contains abundant large tabulate corals, at least 1 cm in diameter as well as crinoids.	92.29	5.85	0.72

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3085	6.6 m @ 112° from L19N, 7+00E	3.2 mh	A0b	Uniform, black, very fine-grained, granular limestone. Like a granular cryptocrystalline unit.	90.21	7.76	0.81
C3086	4.6 m @ 184° from L19N, 6+75E	0.5 ms	A0a	Dark brown cryptocrystalline lime mudstone. Distinctly granular. 5% curved, very thin walled shell fossils.	94.94	3.70	0.44
C3087	11.1 m @ 075° from L19N	2.4 mh	A0a	Massive, granular cryptocrystalline lime mudstone.	97.73	1.23	0.62
C3088	overlies C3087	1.6 mh	A0a	Well bedded, shaly weathering very fine-grained limestone. Single massive cryptocrystalline interbed.	94.80	2.17	1.50
C3089	overlies C3088	1.5 mh	A0a	Massive to thickly bedded cryptocrystalline lime mudstone.	96.71	1.34	0.71
C3090	overlies C3089	2.1 mh	A0a	Mostly cryptocrystalline, very dark brown, granular lime mudstone. Lesser non-granular at top.	97.12	1.47	0.72
C3091	overlies C3090	2.1 mh	A0a	Cryptocrystalline, mostly non-granular lime mudstone.	97.40	1.37	0.68
C3092	overlies C3091	2.6 mh	A0a	Cryptocrystalline lime mudstone. Shaly weathering at base. Moderate bedded throughout.	96.98	1.81	0.68
C3093	6.7 m @ 306° from L19N, 6+50E	4.0 mh	A0a	Clean, cryptocrystalline, dark brown lime mudstone.	97.09	1.40	0.49
C3094	11.0 m @ 115° from L19N, 6+25E	2.0 mh	A0a	Cryptocrystalline, completely massive, very dark brown lime mudstone to wackestone. Very top of unit.	97.35	1.43	0.47

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3095	overlies C3094	1.7 mh	A-1b4	Fine-medium-grained, black, granular limestone. Arranged in 70 cm fining upwards cycles. Bedding weathering out at 10 cm intervals. Contact with underlying cryptocrystalline rock is knife-sharp and gently undulatory.	94.16	1.54	3.37
C3096	6.5 m @ 310° from L19N, 6+25E	1.5 mh	A-1b4	Medium-grained, black, granular limestone. No "pebbly" texture.			
C3097	overlies C3036, separated by 1.7 mh	2.4 mh	A-1b4	Medium-coarse-grained, black granular limestone. More heterogeneous than C3096. 1 cm algal boundstone noted.			
C3098	L19N 5+57.9-5+59.4E	1.8 mh	A-1b2	Medium to thick bedded, fine-medium-grained black, granular limestone.	96.25	1.63	1.49
C3099	L19N 5+56.2-5+57.9E	1.5 mh	A-1b2	Medium-coarse-grained, thinly bedded black granular limestone. Crinoids present.	96.46	1.37	1.52
C3100	L19N 5+43.8-5+42.1E	1.7 mh	A-1b2	Massive, Medium-very coarse-grained, black granular limestone. White crinoid fragments but no pebbles.	97.03	1.31	1.20
C3101	underlies C3102	3.4 mh	A-1b1	Very fine-grained, very dark brown granular limestone. Abrupt upper contact.	98.11	1.26	0.66
C3102	4.1 m @ 097° from L19N, 5+25E	7.7 mh	A-1b1	Medium brown cryptocrystalline, homogeneous lime mudstone. Brittle/chippy.	97.34	1.29	0.47

Sample #	Location	Width	Unit	Observations	% CaCO ₃	% MgCO ₃	% SiO ₂
C3103	6.1 m @ 277° from L23N, 5+75E	1.5 mh	A-1b2	Massive, fine-grained, black, granular limestone. Some white bits.	97.10	1.30	1.04
C3104	15.5 m @ 205° from L23N, 5+50E	5.1 mh	A-1b2	Granular limestone.	94.94	3.17	1.09
C3105	underlies C3104	1.9 mh	A-1b2	Same as C3104	97.43	1.13	1.05
C3106	underlies C3105	3.2 mh	A-1b2	Same as C3104	97.05	1.17	1.28

LEGEND: mh metres horizontal
ms metres stratigraphic

APPENDIX 2
CERTIFICATES OF ANALYSIS



CONTINENTAL LIME INC.

Quality Assurance

Certificate of Analysis Limestone Material

Source	%	%	%	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
Name	Sample	CaCO3	MgCO3	Fe2O3	Al2O3	SrCO3	MnO	SiO2	BaO	K2O	Na2O	P2O5	TiO2	Total
CAN Geology	C-2566	98.55	0.88	0.038	0.034	316	34	0.27	8	93	128	228	20	99.96
CAN Geology	C-2577	98.09	1.12	0.033	0.114	540	16	0.48	9	506	232		61	99.96
CAN Geology	C-2578	97.78	0.91	0.034	0.049	330	31	0.67	11	189	176	176	28	99.51
CAN Geology	C-2579	97.82	1.52	0.065	0.098	739	44	0.38	11	452	216	125	48	99.87
CAN Geology	C-2580	98.90	0.89	0.028	0.032	336	24	0.69	8	279	130	210	70	98.65
CAN Geology	C-2581	83.98	1.97	0.119	0.088	263	38	13.19	9	504	148	198	80	99.47
CAN Geology	C-2582	98.56	0.83	0.048	0.035	319	29	0.34	4	214	119	286	18	99.91
CAN Geology	C-2583	97.29	1.17	0.058	0.041	331	37	0.22	8	204	107	182	29	98.85
CAN Geology	C-2614	95.94	1.78	0.113	0.244	745	38	0.85	12	977	301		128	99.15
CAN Geology	C-2615	92.86	3.84	0.138	0.228	747	76	0.87	9	853	274	223	86	98.28
CAN Geology	C-2616	94.82	2.58	0.175	0.207	725	89	0.77	11	809	298	188	86	98.87
CAN Geology	C-2617	97.82	1.63	0.114	0.116	796	47	0.45	9	461	249	136	73	100.31
CAN Geology	C-2618	98.27	0.85	0.020	0.030	337	38	0.24	11	84	143	138	16	99.48
CAN Geology	C-2619	98.60	0.82	0.020	0.031	339	38	0.28	8	89	152	84	17	99.83
CAN Geology	C-2620	98.67	0.83	0.025	0.060	344	39	0.28	8	126	157	156	16	99.95
CAN Geology	C-2621	98.23	0.83	0.024	0.095	336	39	0.43	10	103	163	174	19	99.69
CAN Geology	C-2622	94.42	0.98	0.052	0.072	324	32	3.67	11	185	148	250	33	99.27
CAN Geology	C-2623	97.88	0.88	0.029	0.038	320	30	0.47	6	90	114	169	18	99.35
CAN Geology	C-2624	98.66	1.04	0.025	0.034	320	28	0.38	8	75	124	249	17	100.22
CAN Geology	C-2625	96.30	1.40	0.046	0.112	604	25	0.69	11	500	275		48	98.68
CAN Geology	C-2626	96.82	1.47	0.062	0.155	774	32	0.94	13	507	280	71	76	99.82
CAN Geology	C-2627	95.33	1.33	0.077	0.225	682	25	1.44	9	859	345		83	98.60
CAN Geology	C-2628	94.20	3.14	0.123	0.301	670	23	1.01	15	1235	368		157	99.02
CAN Geology	C-2629	96.12	1.18	0.022	0.030	334	23	0.33	8	56	135	248	15	99.77
CAN Geology	C-2630	96.81	1.38	0.035	0.070	286	34	0.69	8	274	138	267	28	98.90
CAN Geology	C-2631	98.90	0.85	0.027	0.042	283	41	0.29	8	39	138	212	13	100.17
CAN Geology	C-2632	98.23	0.83	0.022	0.036	265	35	0.28	8	45	135	204	17	99.46
Can Geology	C-2894	95.99	2.00	0.125	0.039	338	33	1.74		214	185	179		99.98
Can Geology	C-2895	98.21	0.92	0.060	0.045	276	39	0.52		181	125	225		99.84
Can Geology	C-2896	97.00	0.83	0.048	0.037	306	29	0.41	2	176	138	293		98.41
Can Geology	C-2897	98.01	0.95	0.053	0.038	317	27	0.85		177	153	233		100.00
Can Geology	C-2898	97.01	1.97	0.045	0.028	318	22	0.48		148	169	247		99.63
Can Geology	C-2899	98.35	1.08	0.036	0.021	316	18	0.44	3	127	161	269		100.00
Can Geology	C-2900	97.86	1.40	0.045	0.044	322	21	0.43		244	158	301	3	99.89
Can Geology	C-3001	98.38	0.95	0.036	0.029	332	20	0.31		150	143	237		99.80
Can Geology	C-3002	98.41	0.92	0.038	0.028	336	20	0.38	2	158	145	231		99.85
Can Geology	C-3003	98.36	0.91	0.043	0.030	328	20	0.54		172	139	190		99.96
Can Geology	C-3004	98.20	1.21	0.052	0.078	632	22	0.28	2	416	154		17	99.94
Can Geology	C-3005	97.45	1.18	0.061	0.201	687	23	0.88	3	1118	184		81	99.98
Can Geology	C-3006	95.12	2.45	0.090	0.137	1285	37	1.16	7	682	242	123	48	99.20
Can Geology	C-3007	95.49	1.66	0.143	0.201	910	42	2.21	6	1079	237	111	81	98.95
Can Geology	C-3008	97.06	1.19	0.103	0.128	605	31	0.58	2	536	254	77	37	99.24
Can Geology	C-3009	94.12	1.27	0.087	0.088	1000	42	2.96	2	457	227	257	19	98.72
Can Geology	C-3010	93.52	4.29	0.089	0.118	855	48	1.26	4	665	237	214	38	99.49
Can Geology	C-3011	96.59	1.35	0.105	0.121	773	32	0.96	2	771	212	206	28	99.33
Can Geology	C-3012	97.28	1.32	0.130	0.144	735	24	0.87	3	671	365	109	52	99.94

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Certificate of Analysis Limestone Material

Source		%	%	%	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Name	Sample	CaCO3	MgCO3	Fe2O3	Al2O3	SrCO3	MnO	SiO2	BaO	K2O	Na2O	P2O5	TiO2	Total
Can Geology	C-3013	94.57	3.87	0.107	0.117	697	36	0.50	3	544	259	155	39	98.14
Can Geology	C-3014	97.41	1.23	0.107	0.199	718	33	0.83	5	694	271	73	89	98.96
Can Geology	C-3015	97.34	1.00	0.067	0.083	320	33	1.32	2	482	189	151	41	98.93
Can Geology	C-3018	82.39	26.93	0.777	1.466	192	114	10.65	40	7872	398	430	1185	95.24
Can Geology	C-3017	85.79	9.50	0.248	0.227	220	40	3.80	5	1146	237	195	123	98.55
Can Geology	C-3018	91.42	5.91	0.157	0.288	343	32	1.97	7	1356	217	273	133	98.98
Can Geology	C-3018	95.98	2.02	0.111	0.052	258	25	0.85	2	338	180	273		98.92
Can Geology	C-3019	95.24	2.78	0.118	0.167	389	36	1.52	6	828	185	121	75	98.99
Can Geology	C-3020	96.01	1.20	0.103	0.075	455	46	0.40	2	411	208	137	15	98.82
Can Geology	C-3021	96.88	1.57	0.122	0.228	635	15	0.82	5	1059	301		111	98.94
Can Geology	C-3022	97.48	1.64	0.079	0.129	718	18	0.41	4	610	289		46	98.92
Can Geology	C-3023	95.06	3.64	0.088	0.151	658	32	0.85	2	715	260		53	98.96
Can Geology	C-3024	97.27	1.34	0.098	0.166	709	24	0.93	4	865	190		58	98.99
Can Geology	C-3025	97.13	1.11	0.074	0.145	711	17	0.80	10	543	310		45	98.22
Can Geology	C-3026	97.29	1.31	0.103	0.168	670	20	0.80	7	743	204	88	63	98.85
Can Geology	C-3027	96.72	1.02	0.051	0.058	538	17	0.25	4	299	182			98.21
Can Geology	C-3028	92.42	4.07	0.084	0.141	737	29	1.13	3	852	231	251	35	98.06
Can Geology	C-3029	96.07	1.26	0.067	0.105	822	15	0.38	8	468	276		69	98.02
Can Geology	C-3030	95.81	1.18	0.099	0.219	531	27	0.77	7	922	229		80	98.06
Can Geology	C-3031	94.87	2.85	0.064	0.131	754	20	0.55	4	597	231		44	98.43
Can Geology	C-3032	94.00	2.89	0.098	0.159	1122	37	1.22	12	936	188	119	48	96.81
Can Geology	C-3033	95.41	1.36	0.076	0.140	719	19	0.83	4	842	181		41	97.99
Can Geology	C-3034	96.71	1.40	0.095	0.185	982	29	1.12	8	888	264	96	69	98.74
Can Geology	C-3035	95.26	1.89	0.106	0.111	806	31	0.92	94	684	182	91	19	98.54
Can Geology	C-3036	96.11	1.10	0.080	0.067	834	18	1.05	7	286	172			98.48
Can Geology	C-3037	97.28	1.12	0.079	0.152	693	21	0.85	7	632	428		35	98.46
Can Geology	C-3038	97.55	1.18	0.100	0.128	789	81	0.83		709	312		21	98.78
Can Geology	C-3039	95.28	1.14	0.071	0.151	675	22	0.79	8	675	333		30	97.60
Can Geology	C-3040	97.51	1.06	0.090	0.185	734	21	0.88	6	956	301		509	98.97
Can Geology	C-3041	95.84	1.06	0.099	0.104	321	37	1.14	3	557	174	266	44	98.38
Can Geology	C-3042	94.45	3.26	0.083	0.126	334	25	1.13	7	777	215	631	51	98.28
Can Geology	C-3043	91.43	5.80	0.115	0.156	288	45	1.60	8	1028	202	329	85	98.10
Can Geology	C-3044	94.24	2.54	0.077	0.147	335	33	1.59	3	989	197	261	63	98.77
Can Geology	C-3045	97.74	0.89	0.070	0.054	246	51	0.27	2	334	110	153		98.91
Can Geology	C-3046	94.40	1.73	0.092	0.147	359	40	1.46	10	862	188	240	166	98.02
Can Geology	C-3047	95.73	1.22	0.090	0.104	351	40	1.12	7	648	154	210	61	98.41
Can Geology	C-3049	97.49	1.14	0.110	0.152	623	33	0.80	7	692	221		57	98.86
Can Geology	C-3050	96.84	1.49	0.061	0.152	896	20	0.53	10	807	280		32	98.28
Can Geology	C-3051	93.01	1.44	0.127	0.084	1237	41	4.94	10	427	277	166	6	96.82
Can Geology	C-3052	96.00	1.38	0.074	0.133	1261	32	0.87	4	563	240	108	30	98.67
Can Geology	C-3053	97.60	0.77	0.175	0.114	416	125	1.15		551	217	246	16	98.96
Can Geology	C-3054	97.89	0.51	0.075	0.052	412	108	0.56		325	149	81		98.19
Can Geology	C-3055	97.70	1.34	0.068	0.103	625	16	0.64		496	229	74	13	98.99
Can Geology	C-3056	96.48	1.53	0.078	0.117	1099	30	1.13	4	595	229	84	26	98.55
Can Geology	C-3057	97.02	1.44	0.089	0.182	817	19	0.79	6	854	296		63	98.73
Can Geology	C-3058	96.99	1.22	0.055	0.093	679	17	0.52	6	458	210		13	98.01

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Source		%	%	%	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Name	Sample	CaCO3	MgCO3	Fe2O3	Al2O3	SrCO3	MnO	SiO2	BaO	K2O	Na2O	P2O6	TiO2	Total
Can Geology	C-3059	97.40	1.18	0.065	0.094	836	22	0.41	11	407	156			99.27
Can Geology	C-3060	96.74	1.18	0.094	0.116	631	26	0.59	3	480	234		24	98.83
Can Geology	C-3061	97.42	1.79	0.077	0.122	856	20	0.29		585	219		16	99.87
Can Geology	C-3062	96.23	1.85	0.114	0.291	696	21	0.65	7	1213	364		135	99.18
Can Geology	C-3063	96.69	1.71	0.129	0.252	586	21	0.67	4	1052	350		101	98.67
Can Geology	C-3064	96.30	2.05	0.118	0.102	748	25	0.37		516	273	165	13	99.11
Can Geology	C-3065	97.44	1.51	0.095	0.104	504	47	0.43	4	487	224	118	23	99.72
Can Geology	C-3066	98.77	0.77	0.050	0.028	307	48	0.28		128	129	256		99.97
Can Geology	C-3067	96.12	2.89	0.066	0.039	298	27	0.43		156	185	232		99.64
Can Geology	C-3068	95.35	1.57	0.140	0.264	749	38	2.30	7	1332	332	130	121	99.89
Can Geology	C-3070	97.05	1.20	0.134	0.209	705	24	1.02	3	1004	443		59	99.84
Can Geology	C-3071	82.32	3.55	0.460	0.172	319	53	13.25	4	888	205	508	76	99.96
Can Geology	C-3072	97.01	1.08	0.097	0.096	730	18	0.44	2	484	257		12	98.86
Can Geology	C-3073	95.75	1.68	0.092	0.082	745	33	1.27		487	258	298		99.05
Can Geology	C-3074	89.44	9.38	0.092	0.146	834	22	0.69	2	675	257	76	43	99.91
Can Geology	C-3075	98.45	0.85	0.044	0.029	306	16	0.22		141	144	330		99.69
Can Geology	C-3076	98.38	0.81	0.048	0.029	315	19	0.59		113	143	220		99.94
Can Geology	C-3077	97.72	0.83	0.062	0.035	328	20	0.78		142	158	178		99.52
Can Geology	C-3078	98.18	0.95	0.049	0.047	307	22	0.51		154	145	178		99.82
Can Geology	C-3079	98.56	0.76	0.057	0.044	324	22	0.45	4	175	119	116		99.95
Can Geology	C-3080	96.53	2.14	0.089	0.086	278	650	0.90		482	203	169	33	99.93
Can Geology	C-3081	96.41	2.56	0.093	0.107	320	32	0.88	3	551	178	125	24	100.14
Can Geology	C-3082	89.49	8.11	0.172	0.301	661	295	1.05	5	1261	440	111	138	99.42
Can Geology	C-3083	91.75	6.68	0.131	0.139	682	43	0.43	2	652	305	183	40	99.32
Can Geology	C-3084	91.79	5.85	0.148	0.185	799	29	0.72	5	875	245		55	98.89
Can Geology	C-3085	89.21	7.78	0.150	0.305	614	28	0.81	3	1207	524		118	98.48
Can Geology	C-3086	94.94	3.70	0.094	0.157	512	20	0.44		705	212		41	99.48
Can Geology	C-3087	97.73	1.23	0.077	0.130	758	27	0.82	2	625	177		27	99.85
Can Geology	C-3088	94.30	2.17	0.214	0.403	914	41	1.50	7	1663	273	80	216	96.91
Can Geology	C-3089	96.71	1.34	0.087	0.184	827	22	0.71	2	877	183		67	98.22
Can Geology	C-3090	97.12	1.47	0.106	0.212	721	22	0.72	5	949	251		84	99.82
Can Geology	C-3091	97.40	1.37	0.095	0.168	887	25	0.68	2	865	195		47	99.92
Can Geology	C-3092	96.98	1.81	0.096	0.201	756	26	0.68	3	938	300		73	99.98
Can Geology	C-3093	97.09	1.40	0.075	0.118	653	108	0.49	2	608	183		17	99.33
Can Geology	C-3094	97.35	1.43	0.080	0.150	965	22	0.47	3	533	396		29	99.68
Can Geology	C-3095	94.16	1.54	0.175	0.154	1439	43	3.37	20	552	289	152	75	99.66
Can Geology	C-3096	96.25	1.63	0.101	0.079	904	31	1.49	3	405	202	96		99.72
Can Geology	C-3099	96.46	1.37	0.154	0.171	731	35	1.52	3	951	212	177	54	99.88
Can Geology	C-3100	97.03	1.31	0.125	0.119	759	32	1.20		844	199	180	10	99.96
Can Geology	C-3101	98.11	1.26	0.082	0.063	720	18	0.66		248	214			100.29
Can Geology	C-3102	97.34	1.29	0.073	0.116	829	18	0.47	13	418	389	72		99.46
Can Geology	C-3103	97.10	1.30	0.105	0.136	1188	31	1.04	4	645	254		41	99.90
Can Geology	C-3104	93.94	3.17	0.108	0.185	736	23	1.09	3	1088	249	128	78	98.73
Can Geology	C-3105	97.43	1.13	0.064	0.086	690	24	1.05		519	171	170	7	99.85
Can Geology	C-3106	97.05	1.17	0.115	0.109	725	32	1.28	2	658	198	168	18	99.91
Can Geology	C-3107	97.62	1.19	0.089	0.156	840	18	0.69		752	306		39	99.94

Approved by:

APPENDIX 3
ANALYTICAL METHODS

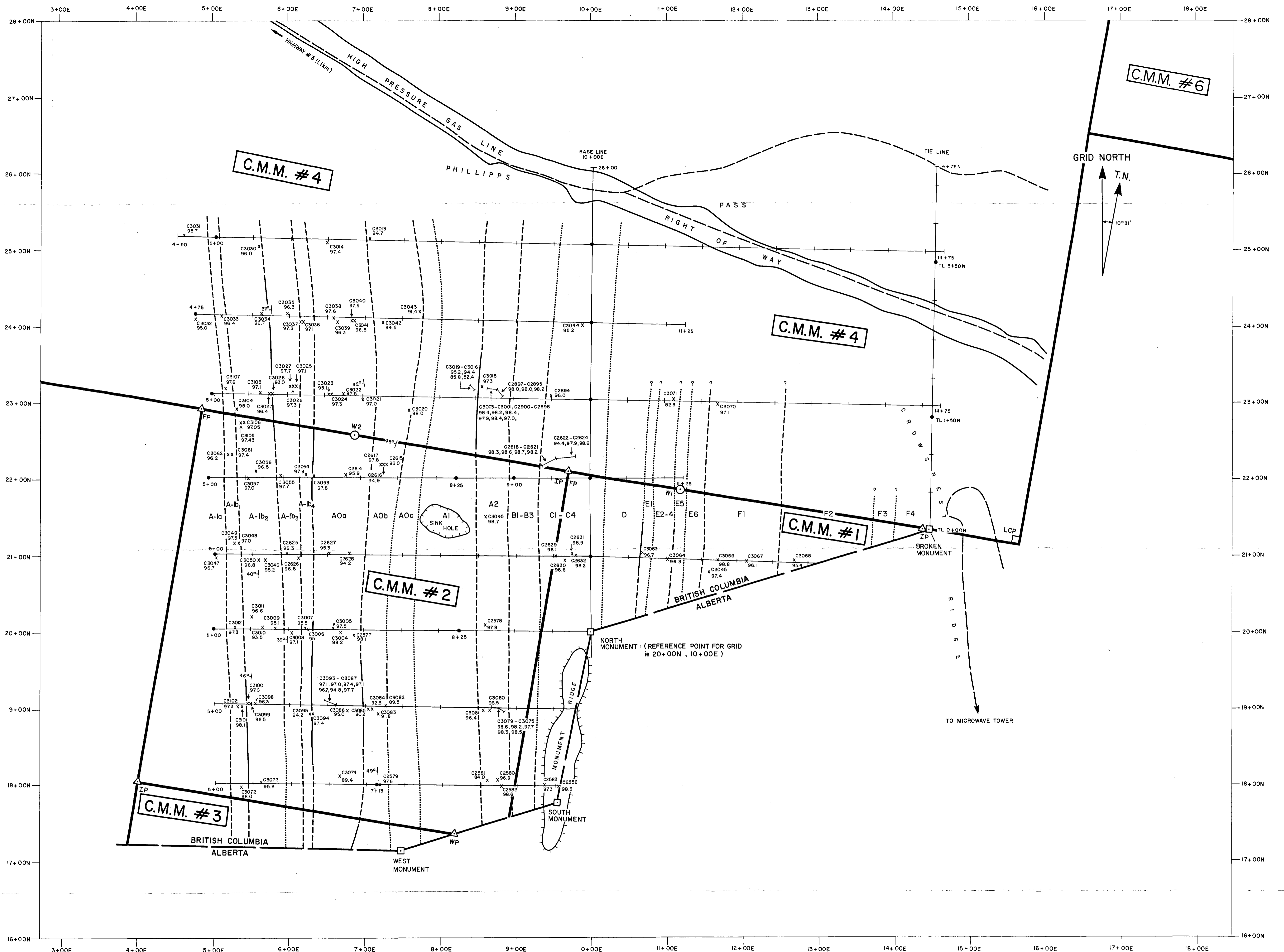
Fusions Method For ICP Analysis

Lithium metaborate, which melts at 845°C, is used for sample dissolution. Lithium metaborate is well suited for attacking and dissolving acidic oxides. The procedure for fusion with lithium metaborate is as follows:

1. Weigh a 0.5 g sample of powdered rock, pulverized to minus 100 mesh, into a graphite crucible of approximately 30 ml capacity. Graphite crucibles must be manufactured from high-purity graphite, and they have a limited lifetime.
2. Add anhydrous lithium metaborate to the crucible and mix the contents well. The ratio of flux to sample should be 4:1. If resistant minerals such as zircon are present, a larger ratio must be used for a successful attack.
3. Fuse the mixture in a muffle furnace at 900°C for 15 minutes. Remove the crucible and swirl the contents. Replace the crucible in the muffle furnace for an additional 15 minutes at 900°C.
4. Remove the crucible from the muffle furnace and allow the fusion to cool to room temperature. Leave any graphite dust in the crucible. Immerse the crucible in a solution of 165 ml of water and 10 ml of concentrated nitric acid. An internal standard, cobalt, is added at this point. The solids will dissolve in 1-2 hours.
5. The dissolved sample is analysed using a Perkin Elmer Optima 3000 ICP simultaneous spectrophotometer.

The following analytical lines are used for ICP analysis:

P	213.618	Ti	334.941
Si	251.611	Al	396.152
Mn	257.610	Sr	407.771
Fe	259.940	Ba	455.403
Mg	280.270	Na	589.592
Ca	317.933	K	766.491



Sample	Width* (m)	% CaCO ₃	% MgCO ₃	% SiO ₂
C2556	16 h	98.55	0.98	0.27
C2577		98.09	1.12	0.46
C2578	+0.5 s	97.75	0.91	0.67
C2579	2 s	97.62	1.52	0.38
C2580	2.5 s	96.90	0.89	0.69
C2581	-7 s	83.98	1.97	13.19
C2582	3 s	98.56	0.83	0.34
C2583	-3 s	97.28	1.17	0.22
C2614	8 h	95.94	1.78	0.85
C2615	2 s	92.95	3.84	0.87
C2616	2 s	94.92	2.58	0.77
C2617	3 s	97.82	1.63	0.45
C2618	7 m a/s	98.27	0.85	0.24
C2619	7 m a/s	98.60	0.82	0.28
C2620	7 m a/s	98.67	0.83	0.28
C2621	7 m a/s	98.23	0.83	0.43
C2622	10.8 m a/s	94.42	0.96	3.67
C2623	10.9 m a/s	94.42	0.96	3.67
C2624	4.3 m a/s	97.86	0.88	0.47
C2625	4.3 m a/s	98.66	1.04	0.38
C2626	4 h	96.30	1.40	0.69
C2627	-4 s	95.33	1.33	1.44
C2628	-3 s	94.20	3.14	1.01
C2629	+0.25 s	98.12	1.18	0.33
C2630	3 h	96.61	1.38	0.69
C2631	4 h	98.90	0.85	0.29
C2632	3.5 h	98.23	0.83	0.28

Sample	Width* (m)	% CaCO ₃	% MgCO ₃	% SiO ₂
C2894	0.1 s	95.99	2.00	1.74
C2895	4.7 h @ 316°	98.21	0.92	0.52
C2896	2.9 h @ 321°	98.00	0.83	0.41
C2897	4.2 h @ 311°	98.01	0.95	0.85
C2898	1.65 h @ 275°	97.01	1.97	0.48
C2899	1.7 h @ 252°	98.35	1.06	0.44
C2900	2.1 h @ 275°	98.35	1.06	0.44
C2901	2.1 h @ 277°	97.86	1.40	0.43
C2902	2.1 h @ 277°	98.38	0.95	0.31
C3001	2.2 h @ 289°	98.41	0.92	0.36
C3002	2.65 h @ 282°	98.41	0.92	0.36
C3003	1.2 s	98.36	0.91	0.54
C3004	-2.5 s	98.20	1.21	0.28
C3005	-1.2 s	97.45	1.16	0.88
C3006	3 h	95.12	2.45	1.16
C3007	3 h	95.49	1.66	2.21
C3008	3.5 h	97.08	1.19	0.58
C3009	3 h	95.12	1.27	2.96
C3010	2.5 h	93.52	4.29	1.26
C3011	2 s	96.59	1.35	0.96

Sample	Width* (m)	% CaCO ₃	% MgCO ₃	% SiO ₂
C3012	5 h	0.00	1.32	0.87
C3013	-2 s	94.57	3.67	0.50
C3014	-0.6 s	97.41	1.23	0.83
C3015	2 h @ 005°	97.34	1.00	1.32
C3016	1 s	52.39	28.93	10.65
C3017	1.2 s	85.79	9.50	3.60
C3018	1.7 s	91.42	5.91	1.97
C3019	-2 s	95.24	2.78	1.52
C3020	2.7 s	98.01	1.20	0.40
C3021	4.6 h	96.98	1.57	0.82
C3022	3 h	97.49	1.64	0.41
C3023	2.05 h	95.06	3.64	0.85
C3024	3.35 h	97.27	1.34	0.93
C3025	3.9 h	97.13	1.11	0.60
C3026	3.1 h	97.29	1.31	0.80
C3027	3.2 h	97.72	1.02	0.25
C3028	1.15 h	93.02	4.07	1.13
C3029	1.45 h	96.37	1.26	0.38
C3030	0.5 s	96.01	1.18	0.77
C3031	1.5 h	95.67	2.85	0.55
C3032	2 h	95.00	2.89	1.22
C3033	8 h	96.41	1.36	0.83
C3034	2.5 h	96.71	1.40	1.12
C3035	5.2 h	96.26	1.89	0.92
C3036	2.8 h	97.11	1.10	1.05
C3037	3.1 h	97.28	1.12	0.65
C3038	3.45 h	97.55	1.18	0.63
C3039	4.5 h	96.28	1.14	0.79

Sample	Width* (m)	% CaCO ₃	% MgCO ₃	% SiO ₂
C3040	2 h	97.51	1.06	0.88
C3041	3 h	96.84	1.06	1.14
C3042	4 h	94.45	3.26	1.13
C3043	3.5 h	91.43	5.60	1.60
C3044	+2 s	95.24	2.54	1.59
C3045	-1 s	98.74	0.69	0.27
C3046	1.5 s	95.20	1.73	1.46
C3047	-2.3 h	96.73	1.22	1.12
C3048	2.5 h	96.98	2.02	0.65
C3049	3.5 h	97.49	1.14	0.80
C3050	2.5 h	96.84	1.49	0.53
C3051	4.4 h	93.01	1.44	4.94
C3052	2.2 h	97.00	1.38	0.87
C3053	1.6 h	97.60	0.77	1.15
C3054	4 h	97.89	0.51	0.56
C3055	2.5 h	97.70	1.34	0.64
C3056	2.7 h	96.48	1.53	1.13
C3057	3.5 h	97.02	1.44	0.79
C3058	2.8 h	96.99	1.22	0.52
C3059	1.7 h	97.40	1.16	0.41
C3060	1.4 h	97.74	1.16	0.59
C3061	3.0 h	97.42	1.79	0.29
C3062	4.4 h	96.23	1.65	0.65
C3063	3.6 h	96.69	1.71	0.67
C3064	3.5 h	96.30	2.05	0.37
C3065	+1 s	97.44	1.51	0.43
C3066	0.5 s	98.77	0.77	0.26
C3067	5 h	96.12	2.89	0.43

Sample	Width* (m)	% CaCO ₃	% MgCO ₃	% SiO ₂
C3068		95.35	1.57	2.30
C3070	-1.2 s	97.05	1.20	1.02
C3071	-3 s	82.32	3.55	13.25
C3072	5 h	98.01	1.08	0.44
C3073	3 h	95.75	1.68	1.27
C3074	4 h	89.44	9.36	0.69
C3075	4.8 h	98.45	0.85	0.22
C3076	2.9 h	98.38	0.81	0.59
C3077	2.3 h	97.72	0.83	0.78
C3078	2.0 h	98.19	0.95	0.51
C3079	1.6 h	98.56	0.76	0.45
C3080	9.4 h	96.53	2.14	0.90
C3081	6.1 h	96.41	2.56	0.86
C3082	3.3 h	89.49	8.11	1.05
C3083	3.4 h	91.75	6.68	0.43
C3084	4.1 h	92.29	5.85	0.72
C3085	3.2 h	90.21	7.76	0.81
C3086	0.5 s	94.94	3.70	0.44
C3087	2.4 h	97.73	1.23	0.62
C3088	1.6 h	94.80	2.17	1.50
C3089	1.5 h	96.71	1.34	0.71
C3090	1.4 h	97.12	1.47	0.72
C3091	2.1 h	97.40	1.37	0.68
C3092	2.6 h	96.98	1.81	0.68
C3093	4.0 h	97.09	1.40	0.49
C3094	2.0 h	97.35	1.43	0.47
C3095	1.7 h	94.16	1.54	3.37
C3098	1.8 h	96.25	1.63	1.49
C3099	1.5 h	96.40	1.37	1.52
C3100	1.7 h	97.03	1.31	1.20
C3101	3.4 h	98.11	1.26	0.66
C3102	7.7 h	97.34	1.29	0.47
C3103	1.5 h	97.10	1.30	1.04
C3104	5.1 h	94.94	3.17	1.09
C3105	1.9 h	97.43	1.13	1.05
C3106	3.2 h	97.05	1.17	1.28
C3107	5.2 h	97.62	1.19	0.69

* a/s = along slope distance
h = horizontal distance
s = stratigraphic thickness

LEGEND

MISSISSIPPIAN

ETHERINGTON FORMATION

- A-1a Cherty dolomudstone, silty dolomudstone, siltstone, bedded chert lime grainstone
- A-1b1 Medium brown, cryptocrystalline lime mudstone
- A-1b2 Fine/medium grained block, granular limestone
- A-1b3 Dark brown, cryptocrystalline lime mudstone to wackestone
- A-1b4 Fine/medium locally sandy grained block, granular limestone

MOUNT HEAD FORMATION

- AO UNIT
- AOa Dark brown, cryptocrystalline lime mudstone to wackestone
- AOb Black, granular to "pebbly", fine/coarse grained lime packstone, locally grainstone
- AOc Fine grained lime mudstone to wackestone

A UNIT

- A1 Dolomitic, (cherty) lime mudstone to packstone
- A2 Lime grainstone
- A3 Cherty dolomudstone

B UNIT

- B1 Lime grainstone
- B2 Dolomudstone to wackestone
- B3 Lime grainstone

C UNIT

- C1 Lime packstone to grainstone
- C2 Old lime grainstone
- C3 Locally dolomitic lime packstone
- C4 Dolomudstone

D UNIT

- D1 Cherty dolomudstone and dolomudstone
- D2 Lime grainstone
- D3 Cherty dolomudstone
- D4 Dolomitic lime mudstone
- D5 Lime grainstone
- D6 Dolomitic lime mudstone with wackestone to grainstone interbeds

E UNIT

- E1 Lime grainstone
- E2 Cherty dolomudstone
- E3 Lime grainstone
- E4 Dolomitic lime mudstone
- E5 Lime grainstone
- E6 Dolomitic lime mudstone with wackestone to grainstone interbeds

LIVINGSTONE FORMATION

- F1 Medium/coarse grained light grey crinoid bryozoan lime grainstone
- F2 Buff, cherty dolomudstone with interbedded lime grainstone
- F3 Medium grained crinoid lime grainstone
- F4 Buff, cherty dolomudstone with interbedded lime grainstone

SURVEYED POINTS

- CLAIM POST
- PROVINCIAL BOUNDARY MONUMENT
- SAMPLE LOCATION
- SAMPLE NUMBER
- SAMPLE LINE
- BEDDING (INCLINED)
- GEOLOGICAL CONTACT DEFINED
- APPROXIMATE
- ASSUMED
- FOUR WHEELED DRIVE ROAD
- LEGAL CORNER POST
- 4 POST CLAIM
- 4 POST CLAIM BOUNDARY POST
- 2 POST CLAIM
- IP INITIAL POST
- FP FINAL POST
- WP WITNESS POST

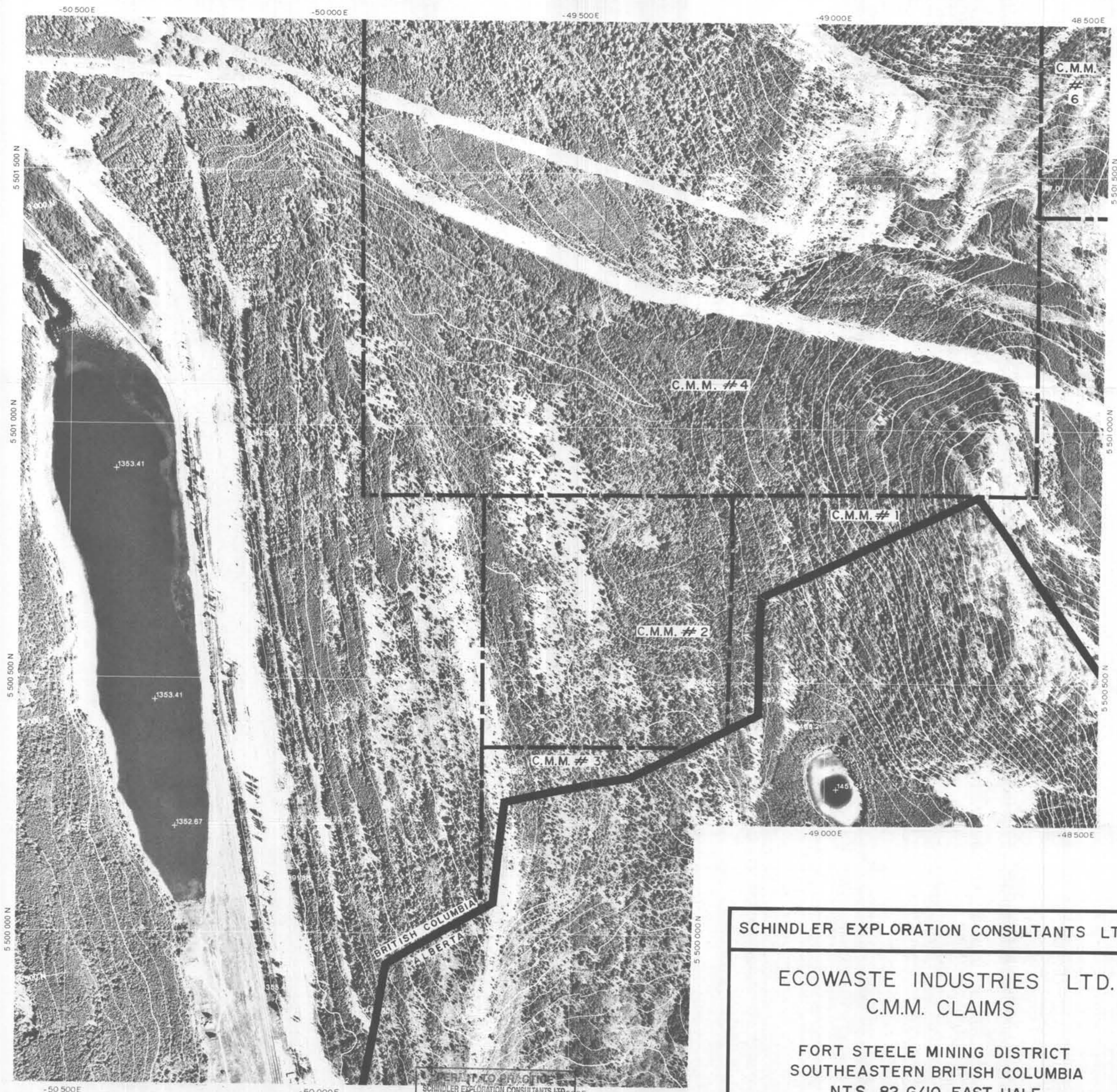
NOTE: FINAL POST C.M.M. #1 / INITIAL POST C.M.M. #2 SURVEYED POSITION. ALL OTHER POSTS REFERRED TO GRID BY CHAIN AND COMPASS.

PERMIT TO PRACTICE
SCHINDLER EXPLORATION CONSULTANTS LTD.
Signature: [Signature]
Date: December 3, 1995
PERMIT NUMBER: P 9437
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

SCALE: 1:2000

Schindler Exploration Consultants Ltd.
ECOWASTE INDUSTRIES LTD.
FORT STEELE M.D.
NTS 82 G/O EAST HALF
FIGURE 3 : C.M.M. CLAIMS SOUTH AREA
GEOLOGY AND SAMPLE LOCATIONS

DATE: DECEMBER, 1995
SCALE: 1:2000
DRAWN BY: A.W. KNOX
REVISED:



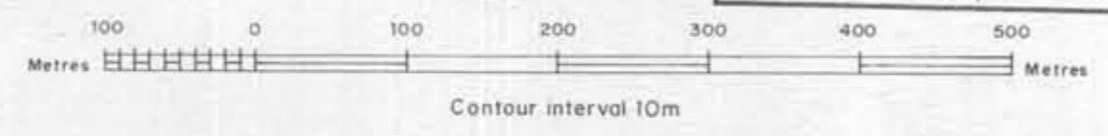
24,182

GEOLOGIC IRRADIATION ASSESSMENT REPORT



Solid grid lines are 3TM, NAD83
 Grid crosses are mine grid coordinates
 Date of photography: August 5 1995
 Scale of photography: 1:10 000
 Survey Control supplied by: Matai Surveys Ltd.
 Produced by: The Orthoshop, Calgary, Alberta. Wo#5283

Scale 1:5000



PERMIT TO PRACTISE
 SCHINDLER EXPLORATION CONSULTANTS LTD.
 Signature: *[Signature]*
 Date: December 3 1995
 PERMIT NUMBER: P 3437
 The Association of Professional Engineers,
 Geologists and Geophysicists of Alberta

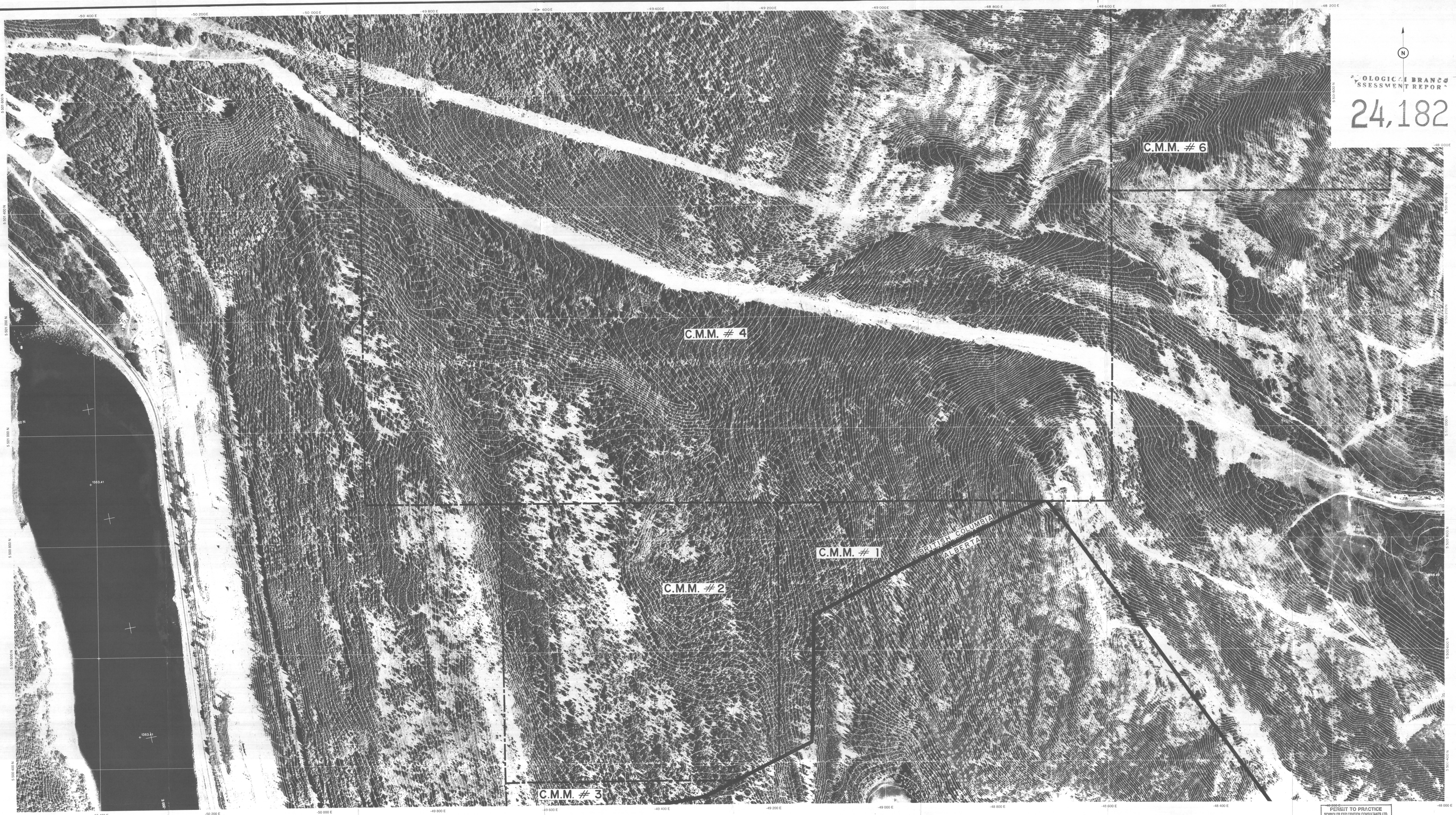
SCHINDLER EXPLORATION CONSULTANTS LTD.

ECOWASTE INDUSTRIES LTD.
 C.M.M. CLAIMS

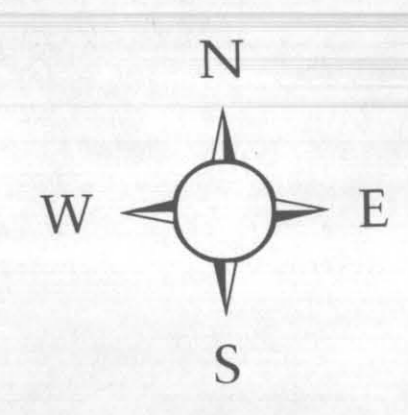
FORT STEELE MINING DISTRICT
 SOUTHEASTERN BRITISH COLUMBIA
 NTS 82 G/10 EAST HALF

FIGURE 4: CMM SOUTH AREA
 ORTHOPHOTO MAP

DATE: DECEMBER 3, 1995 SCALE: 1:5000



GEOLOGICAL BRANCH
 ASSESSMENT REPORT
24,182



Solid grid lines are 3TM, NAD83
 Grid crosses are mine grid coordinates
 Date of photography: August 5, 1995
 Scale of photography: 1:10,000
 Survey Control supplied by: Metrix Surveys Ltd.
 Produced by: The Orthotop, Calgary, Alberta. W045283



PERMIT TO PRACTICE
 SPECIAL ENGINEER CONSULTANT
 Signature: *J. Schindler*
 Date: December 3, 1995
 PERMIT NUMBER: P 3437
 The Association of Professional Engineers,
 Geologists and Geophysicists of Alberta

SCHINDLER EXPLORATION CONSULTANTS LTD.

ECOWASTE INDUSTRIES LTD.
C.M.M. CLAIMS

 FORT STEELE MINING DISTRICT
 SOUTHEASTERN BRITISH COLUMBIA
 NTS 82 G/10 EAST HALF

 FIGURE 5: CMM SOUTH AREA
 ORTHOPHOTO MAP

 DATE: DECEMBER 3, 1995 SCALE: 1:2000