

TRENCHING and DIAMOND DRILLING REPORT

on the

INGENIKA and SWANNELL PROPERTIES

DEL 3, DEL 5 and KLUZ 3 Mineral Claims

Omineca Mining Division

NTS: 94C/11E

B.C. Geographic System Map Sheet: 094C.065

Latitude: 56° 40' N; Longitude 125° 10' W

UTM: 6 282 000 N; 367 000 E; Zone 10

Owner and Operator: Cross Lake Minerals Ltd.

**Owner: Teck Cominco Limited
(Cominco Mining Worldwide Holdings Ltd.)**

Author: Jim Miller-Tait, P.Geo.

August 20, 2003

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

27,253

TABLE OF CONTENTS

Section		Title	Page	
A	Report	Introduction	3	
		Property	3	
		Location and Access	4	
		Climate, Topography and Vegetation	5	
		History	5	
		Regional Geology	6	
		Property Geology	7	
		Trenching Program	9	
		Diamond Drilling	10	
		Conclusions	11	
		Recommendations	13	
		List of References	14	
		Statement of Qualifications	16	
		Schedule of Mineral Claims	17	
		B	Property	
C	Expenditures	Statement of Expenditures	18	
D	Analytical Reports	Acme Analytical Laboratories Ltd.:		
		- Certificates of Analysis (3)		
		- Statement of Analytical Procedures		
E	Drill Hole Logs	Diamond Drill Hole Numbers: CS-02-11		
		CS-02-12		
		CS-02-13		
		CS-02-14		
F	Illustrations			
		Plan Number	Title	Scale
		ING-02-1 (after p. 4)	General Location Plan	1:250 000
		ING-02-2 (after p. 4)	Location Plan with Topography	1:50 000
		ING-02-3 (after p. 4)	Mineral Claim Map	1:50 000
		ING-02-4	Trench and Drill Hole Location Plan DEL 3 and 5 Mineral Claims	1:2 500
		ING-02-5	Drill Hole Plan KLUZ 3 Mineral Claim	1:1 000
		ING-02-6	Cross Section A-A', DEL 3 Claim Through Hole CS-02-11	1:1 000
		ING-02-7	Cross Section B-B', DEL 5 Claim Through Holes CS-02-12, 13	1:1 000
		ING-02-8	Cross Section D-D', KLUZ 3 Claim Through Hole CS-02-14	1:1 000

SECTION A: REPORT**INTRODUCTION:**

Cross Lake Minerals Ltd. owns 100% interest in the Ingenika Zn-Pb-Ag Property (DEL 1-3 mineral claims) and also holds an option to acquire a 100% interest in the adjacent Swannell Property (KLUZ 1-5, DEL 4 and DEL 5 mineral claims) from Teck Cominco Limited under the terms of an option agreement dated April 24, 2001 and amended April 29, 2003.

This report documents the work carried out in 2002, a program of trenching in July 2002 and the drilling of four NQTK diamond drill holes (491.24 metres) in September 2002. This work was a follow up to previous programs completed on the two properties in 2001 by Cross Lake and summarized Assessment Report #26608, 26702 and 26794.

PROPERTY:

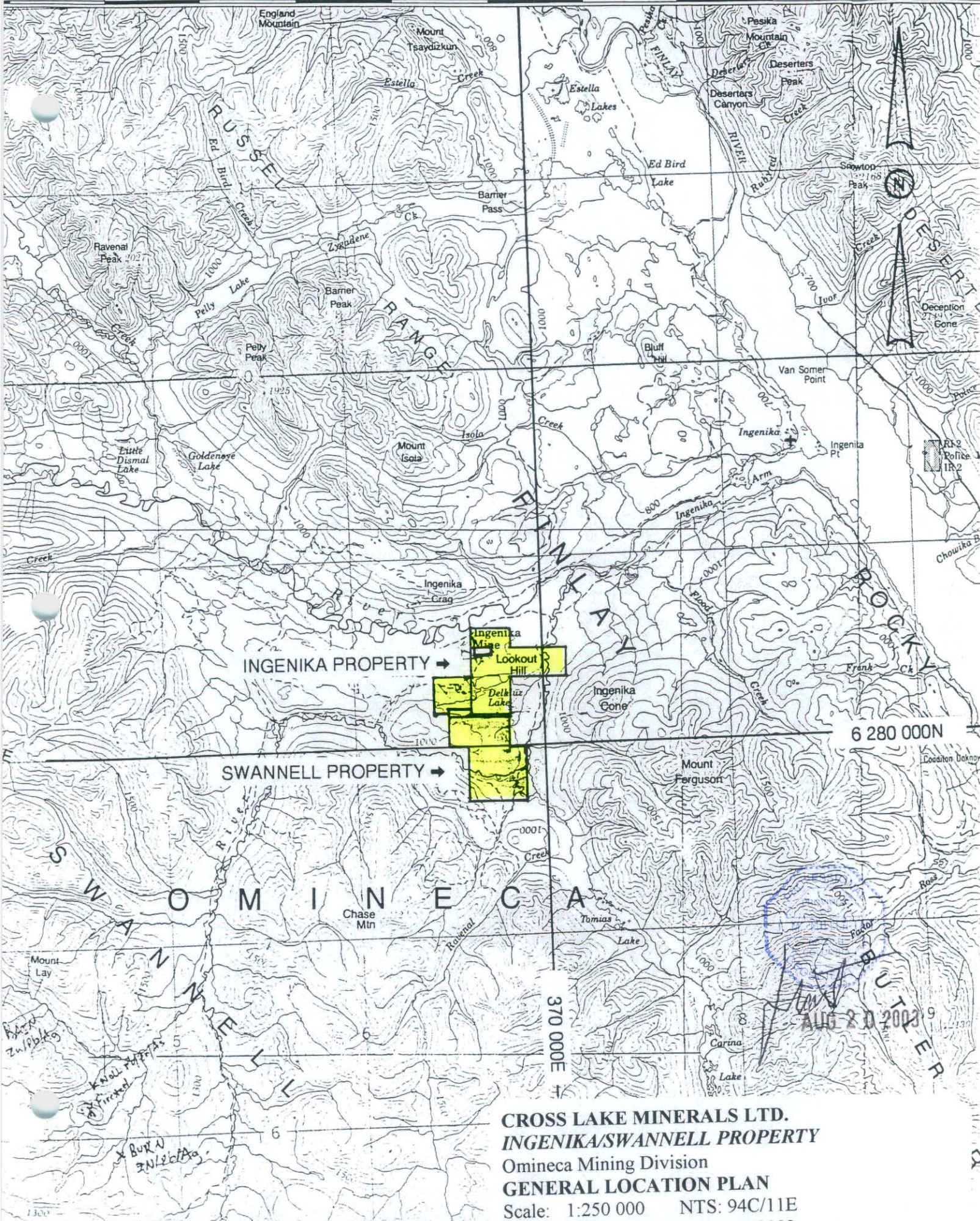
The Ingenika Property is comprised of three contiguous 4 post mineral claims totaling 54 claim units and covering 1,300 hectares. The claims were staked in July, 2000 and are held by Cross Lake Minerals Ltd. The adjacent Swannell Property is comprised of seven contiguous 4 post mineral claims totaling 76 claim units and covering 1,900 hectares. Four of these claims were staked in September, 1981, one dates from May, 1985 and the two most recent claims were staked in May and October, 2001. Five of the claims (KLUZ 1-5) are presently registered in the name of Cominco Mining Worldwide Holdings Ltd., a subsidiary of Teck Cominco Limited, while the two most recent claims are held by Cross Lake Minerals Ltd. All mineral claims are in the Omineca Mining Division. A complete list of the mineral claims that comprise the two

properties is set out in Section B of this report. The expiry dates shown are based on the Statement of Work filed on July 29, 2003 (Event #3197792) and assume that the work contained in this report will be accepted for assessment purposes.

LOCATION AND ACCESS:

The Ingenika and Swannell Properties are located in the Swannell Ranges of the Omineca Mountains in the Omineca Mining Division, some 195 kilometres northwest of Mackenzie, B.C. The property covers the area to the south of the old Ingenika Mine and is situated primarily on the west side of the Swannell River just upstream from its confluence with the Ingenika River. The claims sit on NTS map sheet 94C/11E and B.C. Geographic System map sheet 094C.065. Geographic coordinates at the centre of the property are latitude 56° 40' N; longitude 125° 10' W and the UTM coordinates are 6 282 000 N and 367 000 E in Zone 10.

There is excellent access to the property as a result of intense logging activity in the area. Access to the property is gained by driving 216 kilometres north from Mackenzie along the west side of Williston Lake on a main logging haulage road, then west for 18 kilometres, south for 10 kilometres and west for 3 kilometres to Delkluz Lake. Secondary logging roads are used to access the claims. Care must be taken on some of the secondary logging access roads because they cannot be driven by four-wheel drive vehicles as a result of the roads being deactivated by the logging contractor.



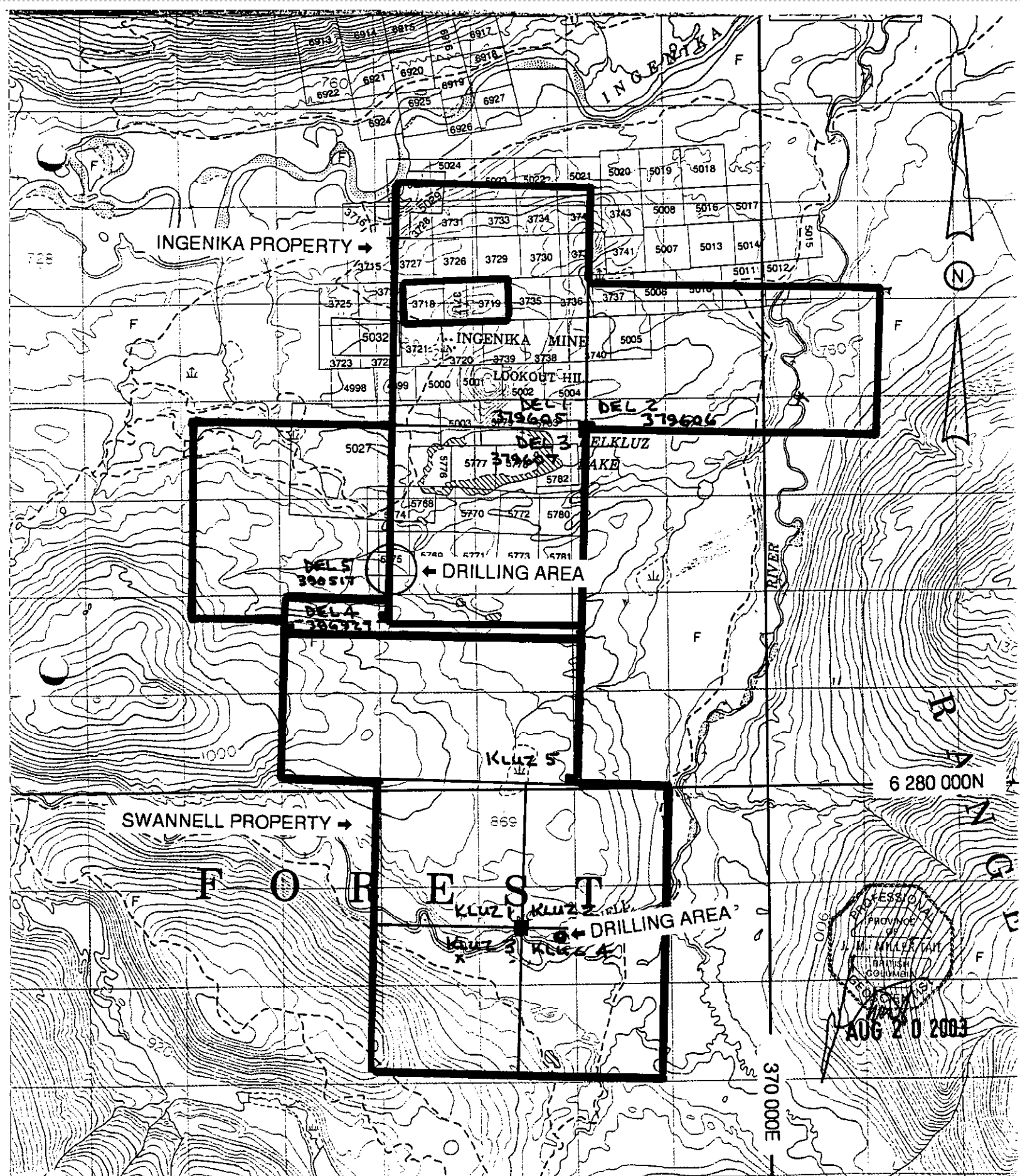
INGENIKA PROPERTY →

SWANNELL PROPERTY →

CROSS LAKE MINERALS LTD.
INGENIKA/SWANNELL PROPERTY
 Omineca Mining Division
GENERAL LOCATION PLAN

Scale: 1:250 000 NTS: 94C/11E
 Plan No. ING-02-1 August 2003

AUG 20 2003



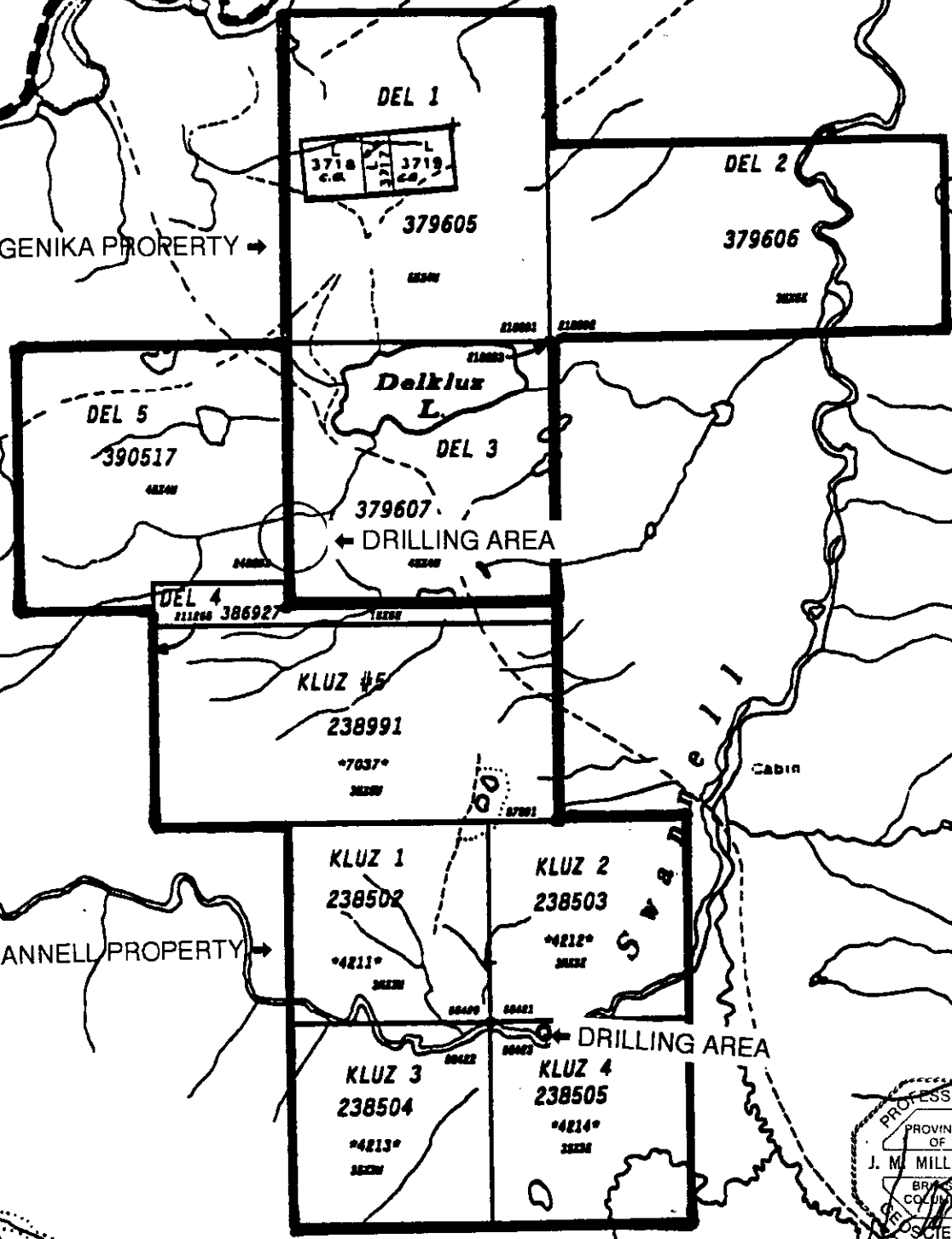
CROSS LAKE MINERALS LTD.
INGENIKA/SWANNELL PROPERTY
 Omineca Mining Division
LOCATION PLAN
 Scale: 1:50 000 NTS: 94C/11E
 Plan No. ING-02-2 August 2003

385338
MINERAL RESERVE
NO STAKING

385338
MINERAL RESERVE
NO STAKING

INGENIKA PROPERTY →

SWANNELL PROPERTY →



CROSS LAKE MINERALS LTD.
INGENIKA/SWANNELL PROPERTY
 Omineca Mining Division
MINERAL CLAIMS
 Scale: 1:50 000 NTS: 94C/11E
 (Plan No. ING-02-3 August 2003

CLIMATE, TOPOGRAPHY AND VEGETATION:

The Ingenika area has cold, medium snowfall winters and warm, dry summers. The topography of the claims is relatively flat with low rolling hills that are heavily timbered by pine and spruce. In the clear cuts deciduous willows and poplars predominate.

HISTORY:

The original claims in the Ingenika area were staked in 1917 by S. Ferguson to cover the oxidized limestone hill, named Ferguson Hill. The oxidized limestone hill, located on the south bank of the Ingenika River, contains stratabound zinc, lead and silver sulphide mineralization consisting of sphalerite, galena and pyrite. The mineralization ranges from 1 to 3 metre thickness and strikes 100 degrees and dips north from 20 to 40 degrees.

In 1926 these claims were acquired by the Selkirk Mining Syndicate of Victoria. In 1927 Ingenika Mines Ltd. was formed and completed the existing historic underground development of drifting, crosscutting and raising from 1927 to 1932. There was also extensive trenching completed and some diamond drilling. The assessment report database has very limited information because the Ingenika Mine was covered by crown granted mineral claims and therefore assessment reports were not required.

The work completed from 1927 to 1932 was summarized in the Geological Survey of Canada, Memoir 274, by E.F. Roots. The underground development explored four base metal zones from four levels, the 1, 2, 4 and 5 levels. Ore was encountered in all levels except for the lowest level, 5-level, which is postulated as being driven too low in stratigraphy.

During the summers of 1956 and 1957 Consolidated Mining and Smelting Ltd. conducted geophysical and geological work in and around the Ingenika Mine, Onward, Onward South and Swannell showings. This work was followed by 3,602 metres of AQ core size diamond drilling. Dorita Silver Mines acquired the Ingenika Property in 1969 and completed surface and underground mapping and diamond drilled 550 metres in 21 drill holes. Dorita Silver Mines estimated the Ingenika Mine reserve at 22,677 tonnes grading 119.9g/t silver, 9.8% lead and 6.1% zinc. International Impala Resources acquired the Ingenika property in 1991 and completed 24 kilometres of VLF and magnetometer surveying, 7 kilometres of I.P. surveying, collected 490 soil geochemical samples and 14 rock samples. The company concluded that drilling east of the No.5 level workings would intersect the ore if it rakes northeast.

REGIONAL GEOLOGY:

The Ingenika area was mapped by Roots, whose work is documented in Geological Survey of Canada, Memoir 274, and published in 1954. There is no detailed stratigraphic correlation or fossil dates available from the rocks in the area of the Ingenika Property. The present interpretation of the rocks underlying the Ingenika area, in the vicinity of the claims, are correlated with the Upper Cambrian – Lower Ordovician Kechika Group which lies unconformably on Upper Proterozoic rocks of the Ingenika Group, correlated with the Windermere Supergroup.

The rock units underlying the Ingenika claims can be subdivided into the Ingenika and Kechika Groups. The lowest stratigraphic unit is sandstone and grit belonging to the Upper Proterozoic

Ingenika Group. The carbonate bearing strata of the Kechika Group overlies it and forms the core of a broad northerly plunging syncline, mapped by the G.S.C. The Kechika Group rocks disappear 3 kilometres south of the Swannell River because the syncline intersects the surface here.

PROPERTY GEOLOGY:

The Ingenika area was mapped by E.F. Roots, whose work is documented in Geological Survey of Canada, Memoir 274, and published in 1954. The lowermost unit consists of the Upper Proterozoic Ingenika Group, exposed by the Swannell River, consists of brown siltstone with several thin coarse sandstone and quartzite beds and schist. A 5-20 metre thick impure limestone bed caps the brown siltstone and underlies a group of distinctly carbonaceous siltstone, which is approximately 50 metres thick. The carbonaceous siltstone unit becomes less carbonaceous and distinctly carbonate-rich up-section where it is interbedded with limestone-dolomite beds of the Upper-Cambrian-Lower Ordovician Kechika Group. This carbonate-rich section hosts the mineralization, strikes at 100 degrees and dips 20 to 40 degrees north. This section is a mixture of coarse to fine clastic rocks with layers and beds of pure crystalline to impure silty limestone a few metres to 60 metres thick with an overall unit thickness of 80 metres. The mineralized sequence is overlain by a fine to coarse clastic sequence, which shows a gradational contact from limy siltstone to sandstone, grit and sericite phyllite.

The important showings, that were also mapped by Roots, consist of the Ingenika, Onward, Onward South and Burden. The Ingenika showing is not held by Cross Lake but is on three crown granted mineral claims surrounded by Cross Lake's claims and it is important to describe

in order to provide a comparison with the other showings and the interpretation of the soil sampling anomalies.

The Ingenika showing has been extensively explored by soil and geophysical surveying (VLF, magnetometer, and I.P.), geological mapping on surface and underground, trenching, diamond drilling and underground drifting, crosscutting and raises from four levels. Most of the work is confined on Ferguson Hill where the base metal mineralization is exposed. The mineralization is confined to the cream colored crystalline limestone of the Ingenika Group of Lower Cambrian age. The mineralization, 1 to 3 metres in thickness, consists of four parallel zones that are controlled by bedding. The bedding and mineralization strikes at 100 degrees and dips from 20 to 40 degrees north. The mineralization replaces limestone-quartz-siderite host and consists of pyrite, galena and sphalerite with lesser amounts of copper and silver sulphides. The upper three levels of underground development, the 1, 2 and 4-levels, intersected strong mineralization in the limestone host. However, the lowest level, 5-level, was driven through the limestone host and intersected schist where the mineralization was projected to from the upper levels.

The Onward and Onward South mineralization are in the same Lower Cambrian limestone host as the Ingenika mineralization and consist of galena, sphalerite and pyrite but differ in that they appear to cross-cut the limestone. At the Onward showing, on the south side of Delkutz Lake, the mineralization exposed by trenching is a siderite, quartz flooded brecciated vein system with galena, pyrite and sphalerite mineralization. The vein system strikes at 010° and dips vertical.

At the Onward South trenches and old shaft, located 500 metres south of the Onward showing, Roots described the mineralization as consisting of sphalerite, galena and pyrite cross-cutting the

stratigraphy and confined to a brecciated vein system. The mineralization is not exposed in place because the trenches and shaft are now filled with slumping overburden but rock samples collected from the dumps confirm the mineralization.

The Burden showing was not examine by the author but the following description is compiled from Roots G.S.C. Memoir 274. The Burden showing is located on the east side of the Swannell River, eight kilometres above its confluence with the Ingenika River. The Swannell River has exposed several irregular masses of white vein quartz in highly calcareous talc-sericite schist of the Ingenika Group. The quartz is cut by stringers of cream-colored crystalline calcite, and contains blebs and stringers of pyrite and chalcopyrite. About 30 metres downstream from the main quartz occurrence is a rounded massive sulphide boulder 0.6 x 0.6 x 1.2 metres in size comprised of massive, fine-grained pyrite, chalcopyrite, covellite and bornite.

TRENCHING:

A program of excavator trenching was completed in July of 2002 to test the area of the MMI base metal soil anomaly. The contractor, 550226 B.C. Ltd. of Prince George, utilized a CAT Model 225 excavator to carry out the work. There were a total of four trenches completed but all failed to expose the bedrock due to the glacial till being deeper than 5.0 metres and safety considerations preclude going deeper (see Plan No. ING-02-4 for trench locations). The important factor determined by the trenching program was the discovery of fragments, up to 3 cm in size, of base metal mineralization consisting of sphalerite and galena. The details of the trenching program are set out in the following table.

Trench No.	Claim	Length (metres)	Width (metres)	Depth (metres)
IT-02-1	DEL 3	100	2	5
IT-02-2	DEL 5	25	2	5
IT-02-3	DEL 5	25	2	5
IT-02-4	DEL 5	25	2	5

DIAMOND DRILLING:

The diamond drilling program consisted of four, thin-wall NQ (NQTK) core size, holes totaling 491.24 metres. The drilling contractor was F. Boisvenu Drilling Ltd. of Delta, B.C. and a Super 38 drill unit was employed. The drill core was logged and split on site with one half of the core being delivered to and analyzed by Acme Analytical Laboratories Ltd. of Vancouver, B.C. Analytical reports and descriptive logs are appended in Sections D and E. The drill core remains stacked on the property beside drill hole CS-02-11. The drill hole details are summarized in the following table and shown on Plan Numbers ING-02-4 to ING-02-8.

Hole No.	Claim	Length (metres)	Overburden (metres)	Azimuth	Dip
CS-02-11	DEL 3	138.68	6.10	210°	-45°
CS-02-12	DEL 5	150.88	7.92	210°	-45°
CS-02-13	DEL 5	74.68	18.90	030°	-45°
CS-02-14	KLUZ 3	127.00	18.90	235°	-47°
Total		491.24			

Three holes (CS-02-11, 12 and 13) were drilled in the vicinity of the trenching and the corresponding 2001 MMI soil anomaly; one hole, CS-02-11, being on the Ingenika Property and two holes, CS-02-12 and 13, being on the Swannell Property. Hole CS-02-14 was drilled on the south side of the Swannell River on the Swannell Property.

The first three holes (CS-02-11, 12 and 13) were designed to test the MMI soil anomaly and verify the orientation of the stratigraphy. The holes intersected favorable dolomitic limestone, the preferred host for base metal mineralization but failed to encounter any mineralization of significance.

Hole CS-02-14 intersected the base metal mineralization of the Swannell Showing and an intersection from 64.4m to 65.4m in a graphitic fault zone consisted of sphalerite, galena and pyrite with crushed limestone fragments that graded 2.97% zinc and 0.68% lead.

CONCLUSIONS:

The original claims in the Ingenika area were staked in 1917 by S. Ferguson to cover the oxidized limestone hill subsequently named Ferguson Hill. The oxidized limestone hill, located on the south bank of the Ingenika River, contains stratabound zinc, lead and silver sulphide mineralization consisting of sphalerite, galena and pyrite. The mineralization ranges from 1 to 3 metres in thickness and strikes 100 degrees and dips north from 20 to 40 degrees. The Ingenika Property, 100% owned by Cross Lake Minerals Ltd., surrounds the three crown granted claims of the Ingenika Mine and covers two base metal showings named the Onward and Onward South. The two showings contain significant values in zinc, lead and silver.

The experimental test work of comparing conventional versus Mobile Metal Ions (MMI) soil sampling and analyses proved that the MMI method outlined the known mineralization more effectively than conventional soil sampling. Based on this favourable comparison a survey area was selected to cover the known showings and a 500 x 800 metre area south of the known areas of mineralization where there is no bedrock exposure.

The MMI soil sampling survey was successful in outlining the known mineralization and extending the anomalous area along strike. Most importantly the survey discovered two new high priority soil anomalies located southwest of the known mineralization. The most important soil geochemical anomaly is located in the southwestern area of the grid and is still open along strike. This 500 metre anomalous area has higher values in the soil than where the survey covered the known high grade mineralization.

Also observed in this area where the logging contractors have constructed roads is angular manganese stained limestone float with semi-massive pyrite. This material is very similar to the Ingenika Mine host rock, located 2.5 kilometres north of the survey area. All of the soil anomalies have a similar strike direction as the mineralization at the Ingenika Mine.

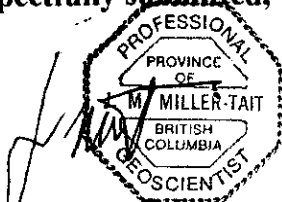
Based on the favorable soil results a trenching program was initiated to try and expose the bedrock with a CAT 225 size excavator. The glacial till was too deep to expose the bedrock, the thickness being greater than 5.0 metres. The important factor determined by the trenching program was the discovery of fragments, up to 3 cm in size, of base metal mineralization consisting of sphalerite and galena.

The diamond drilling completed in 2002 in the area of the trenching and MMI sampling failed to intersect the source of the base metal till fragments. One hole (CS-02-14) drilled on the south side of the Swannell River was successful in intersecting low grade, narrow base metal mineralization in the Swannell Showing.

RECOMMENDATIONS:

The next phase of exploration on the Ingenika and Swannell Properties should consist of a test survey of the newly developed 3-D Inversion IP geophysical method over an area of known mineralization to determine if the system can outline the known mineralization, such as the Ingenika Mine mineralization. If this is successful then a larger survey crossing the stratigraphy should be completed.

Respectfully submitted,



Jim Miller-Tait, P. Geo.

AUG 20 2003

LIST OF REFERENCES:

J. Chapman, T. Lewis, Jan. 10, 1991. *Geological, Geophysical and Geochemical Report on the Ferguson Project for International Impala Resources Ltd.*

Gabrielse, H., Unpublished GSC Map of the Mesilinka Map Area, 94C.

Mawer, A.B., 1982. *Cominco Year End Report on the Swannell Group.*

Mawer, A.B., 1986. *Cominco Year End Report on the Swannell Group.*

Mansy, J.L. and Gabrielse, 1978. *Stratigraphic Terminology and Correlation of Upper Proterozoic Rocks in Omineca and Cassiar Mountains, North-Central B.C., GSC Paper 77-19.*

Miller-Tait, J. (August 2001): *Geochemical Sampling Report on the Swannell Property, KLUZ 1-5 Mineral Claims, for Cross Lake Minerals Ltd.; NTS 94C/11E; B.C. Assessment Report #26,608*

Miller-Tait, J. (November 2001): *Diamond Drilling Report on the Swannell Property, KLUZ 1-5, DEL 4 and 5 Mineral Claims, for Cross Lake Minerals Ltd.; NTS 94C/11E; B.C. Assessment Report #26,702*

Miller-Tait, J. (December 2001): Geochemical Sampling Report on the Ingenika Property, DEL
3 Mineral Claim, for Cross Lake Minerals Ltd.; NTS 94C/11E; B.C. Assessment Report #26,794

Roots, E.F., 1954. Geology and Mineral Deposits of the Aiken Lake Map Area, B.C., GSC
Memoir 274.

STATEMENT OF QUALIFICATIONS:

For: Jim Miller-Tait of 828 Whitchurch Street, North Vancouver, B.C. V7L 2A4

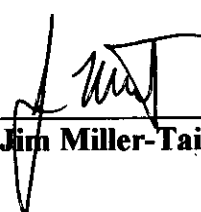

I graduated from the University of British Columbia with a Bachelor of Sciences Degree in Geology (1987);

I have been practicing my profession as a geologist in mineral exploration and mining continuously since 1987;

I am a fellow in good standing with the Geological Association of Canada;

I am a registered member in good standing as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia;

The observations, conclusions and recommendations contained in the report are based on field examinations, personal sampling, and the evaluation of results of the exploration programs completed by the operator and agreement holder of the property.



Jim Miller-Tait, P. Geo. Aug. 20/2003

SECTION B: PROPERTY

INGENIKA /SWANNELL	SCHEDULE OF MINERAL CLAIMS		
PROVINCE: British Columbia	CLAIMS: 10	UNITS: 130	AREA: 3250 ha
MINING DIVISION: Omineca	NTS: 94C/11E		BCGS: 094C.065
LOCATION: near the Ingenika Mine and Delkluz Lake some 250 km northwest of Mackenzie and 108 km north-northwest of Germansen Landing	LATITUDE: 56° 39'		LONGITUDE: 125° 10'
	UTM: ZONE 10	6 282 000N	367 000E
MAP SHEET (1:250 000): 94C - Mesilinka River (1:50 000): 94C/11 - Ingenika Mine	PROPERTY INTERESTS:		
	Ingenika: Cross Lake Minerals Ltd. - 100% Swannell: Teck Cominco Limited - 100%. Option Agreement with Teck Cominco Limited dated April 24, 2001 and amended June 11 and October 31, 2001 and April 29, 2003 whereby Cross Lake may earn a 100% interest subject to a 2% Net Smelter Return Royalty.		

CLAIM NAME	RECORD NUMBER	UNITS	RECORD DATE (yyyy-mm-dd)	DUE DATE (yyyy-mm-dd)	ANNUAL WORK REQUIRED	RECORDED HOLDER
INGENIKA PROPERTY:						
DEL 1	379605	20	2000-07-29	2005-07-29	4000.00	Cross Lake Minerals Ltd.
DEL 2	379606	18	2000-07-29	2005-07-29	3600.00	Cross Lake Minerals Ltd.
DEL 3	379607	<u>16</u> 54	2000-07-28	2005-07-28	<u>3200.00</u> 10800.00	Cross Lake Minerals Ltd.
SWANNELL PROPERTY:						
KLUZ 1	238502	09	1981-09-09	2005-09-09	1800.00	Cominco Mining Worldwide Holdings Ltd.
KLUZ 2	238503	09	1981-09-09	2005-09-09	1800.00	"
KLUZ 3	238504	09	1981-09-09	2005-09-09	1800.00	"
KLUZ 4	238505	09	1981-09-09	2005-09-09	1800.00	"
KLUZ 5	238991	18	1985-05-29	2005-05-29	3600.00	"
DEL 4	386927	06	2001-05-23	2005-05-23	1200.00	Cross Lake Minerals Ltd.
DEL 5	390517	<u>16</u> 76	2001-10-16	2005-10-16	<u>3200.00</u> 15200.00	Cross Lake Minerals Ltd.
		130			\$26000.00	

ASSESSMENT WORK SUMMARY

Date of Filing (yyyy-mm-dd)	Work Filed \$	New Work Applied \$	Banked Credits Applied	Banked Credits Saved	Total Banked Credits	Date of Approval (yyyy-mm-dd)	Event Number
2001-01-24	5400.00	5400.00	0	0	0	2001-01-24	3159810
2001-05-28	3600.00	3600.00	0	0	0	2001-10-24	3165802
2001-08-24	Notice to Group		0	0	0	-	3172061
2001-08-24	20236.35	18600.00	0	1636.35	0	2001-10-24	3170262
2001-09-07	43389.96	22800.00	0	0	0	2001-10-24	3170821
2002-02-18	Notice to Group		0	0	0	-	3176212
2002-02-18	6776.59	15600.00	0	7070.23	0	2002-04-22	3176213
2003-07-29	49592.84	10800.00	0	38792.84			3197792

SECTION C: EXPENDITURES (2002)

Item	Work Performed	Quantities / Rates	Amount
Project Geologist: J. Miller-Tait, P. Geo., Sikanni Mine Development Ltd.	Project supervision, geological mapping, channel sampling, soil sampling and core logging Period: Jul 08-14, 2002 Sep 13, 14, 16-28, 2002	6 days @ \$374.50 15 days @ \$374.50	\$2,247.00 <u>5,617.50</u> 7,864.50
Field Assistant: F. Miller-Tait	Core Splitting Period: Sep 16-29, 2002	14 days @ \$267.50	3,745.00
Transportation: Vancouver to property, onsite and return	4x4 pickup truck: Period: Jul 08-14, 2002 Sep 16-28, 2002 Air fare: Prince George to Vancouver	6 days @ \$75.00 13 days @ \$75.00 Fuel 1 person	450.00 975.00 518.46 <u>230.29</u> 2,173.75
Accommodation and Meals	Period: Jul 08-14, 2002 Sep 16-28, 2002		400.21 <u>1,226.62</u> 1,626.83
Trenching Contractor: 550226 BC Ltd.	Link Belt Model 2800 excavator during the period from Jul 11-16, 2002	24.32 hrs @ \$133.75 Lowbed Transport	3,252.80 <u>2,439.60</u> 5,692.40
Diamond Drilling: F. Boisvenu Drilling Ltd.	Mobilization / demobilization NQTK drilling: Moving, cat work, acid tests and extra labour costs Drilling materials including 66 core boxes	Transport charges 491.24 metres	4,922.00 25,439.22 2,983.16 <u>1,893.17</u> 35,237.55
Field Supplies	Field materials, sampling supplies and core splitter Period: Jul 08-14, 2002 Sep 2002		173.64 <u>364.99</u> 538.63
Analytical Services: Acme Analytical	ICP-MS 35 element analysis: Trenching samples Drill core samples	7 samples 79 samples	102.94 <u>1,185.96</u> 1,288.90
Report Preparation:	J. Miller-Tait, P. Geo.	4 days @ \$374.50	1,498.00
Drafting: Geodrafting Services Ltd.	Base Map Preparation, Data Plotting and Geological Map Preparation	10.0 hrs. @ \$53.50	535.00
Printing	Kinko's Copy Centre		30.61
Total			<u>\$60,231.17</u>

Expenditure Apportionment:

Work Program	Mineral Claims	Work Quantities	Expenditure
Phase 2002-1: Trenching	DEL 3 (Ingenika Property) DEL 5 (Swannell Property)	Trenching: 100 metres Trenching: 75 metres	\$5,755.84 4,316.88
Sub-total		Trenching: 175 metres	\$10,072.72
		Cost per metre:	\$57.56
Phase 2002-2: Drilling	DEL 3 (Ingenika Property) DEL 5 (Swannell Property) KLUZ 3 (Swannell)	Drilling: 138.68 metres Drilling: 225.56 metres Drilling: 127.00 metres	\$14,160.03 23,030.98 12,967.44
Sub-total		Drilling: 491.24 metres	\$50,158.45
		Cost per metre:	\$102.11
Total Expenditures	DEL 3 (Ingenika Property) DEL 5 (Swannell Property) KLUZ 3 (Swannell)		\$19,915.87 27,347.86 12,967.44
			\$60,231.17

SECTION D: ANALYTICAL RESULTS

1. Analyses carried out by Acme Analytical Laboratories Ltd., Vancouver, B.C.

- Certificate of Analysis A202454 dated July 31, 2002
- Certificate of Analysis A202659 dated August 8, 2002
- Certificate of Analysis A204375 dated October 23, 2002
- Statement of Analytical Procedures

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716



GEOCHEMICAL ANALYSIS CERTIFICATE

AUG 07 2002 AA

Cross Lake Minerals File # A202454

240 - 800 W. Pender St., Vancouver BC V6C 2V6 Submitted by: Jim Miller-Tait

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
SI	.7	1.3	.8	1	<.1	.8	.1	7	.09	<.5	<.1	<.5	<.1	4	<.1	.1	<.1	1	.14	.001	<1	3.5	<.01	5<.001	1	.02	.401	.01	.5	.01	.1	<.1	<.05	<1	
A 206501	.8	9.8	2968.2	10200	2.2	3.6	2.9	17239	19.17	38.9	.2	35.0	.8	37	16.6	6.3	<.1	1	.73	.044	1	4.4	.31	56	.007	<1	.05	.002	.02	1.9	.37	.7	.1	4.63	1
A 206502	.7	6.9	2627.9	7451	2.2	2.1	1.6	9985	24.92	21.4	.2	33.1	.5	31	10.2	4.9	<.1	2	.89	.030	1	3.7	.17	42<.001	<1	.03	.004	.01	.6	.36	.7	<.1	2.90	1	
A 206503	.1	2.2	15393.5	13851	8.1	<.1	3.4	498	.53	1.0	.1	1.2	.2	286	67.0	14.1	.3	1	37.65	.002	1	1.5	.25	7	.002	<1	.05	.001	.01	.1	.06	.1	<.1	.98	<1
A 206504	.1	1.9	817.4	6873	.5	.1	1.7	814	.67	1.3	.1	.6	.1	323	33.5	.7	<.1	1	36.88	.001	2	1.2	.67	6<.001	<1	.04	.001	.01	.1	.04	.1	<.1	.39	<1	
A 206505	.2	10.9	16600.3	51194	9.0	.8	13.0	2234	2.75	.9	.2	.7	.1	229	322.0	13.7	.6	<1	28.67	.001	2	<1	1.76	6	.001	<1	.02	.002	.01	.2	.23	.2	<.1	1.98	<1
A 206506	.2	4.1	27095.6	7571	15.7	4.0	5.5	4697	8.06	3.4	.2	.6	.2	195	37.0	27.0	1.2	1	22.17	.003	2	1.1	4.64	6<.001	<1	.05	.004	.01	.1	.05	.2	<.1	1.16	<1	
STANDARD DS3	9.1	121.3	33.8	161	.3	34.7	11.4	823	3.37	31.6	6.5	22.0	3.6	28	6.3	5.4	5.3	81	.56	.088	17	179.7	.59	141	.086	2	1.79	.034	.15	3.6	.22	4.1	1.1	<.05	6

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: JUL 22 2002 DATE REPORT MAILED: July 31/02 SIGNED BY: C. Toy D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Assay recommend for Pb > 5000 ppm
Zn > 1%

C

C

C

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716



GEOCHEMICAL ANALYSIS CERTIFICATE



Cross Lake Minerals File # A202659

240 - 800 W. Pender St., Vancouver BC V6C 2V6 Submitted by: Jim Miller-Tait

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm
A 206507	.9	21.7	198.3	818	.3	28.8	11.5	819	2.94	17.6	.5	2.4	7.1	165	1.2	.9	.2	13	4.20	.037	10	17.9	1.02	66	.011	1	.86	.011	.11	1.0	.04	2.8	.1	.49	3
STANDARD DS3	8.8	123.8	34.7	158	.3	33.7	11.3	782	3.15	31.9	6.2	19.0	4.1	28	5.5	5.0	6.1	75	.54	.084	18	173.2	.56	139	.083	2	1.67	.032	.15	3.8	.24	4.0	1.1	<.05	6

Swannell

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
 UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
 - SAMPLE TYPE: CLAY P150

DATE RECEIVED: JUL 30 2002

DATE REPORT MAILED:

Aug 8/02

SIGNED BY.....

D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Cross Lake Minerals PROJECT SUANNELL File # A204375 Page 1

OCT 29 2002

240 - 800 W. Pender St., Vancouver BC V6C 2V6 submitted by: Jim Miller-Taft

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm
SI	.2	1.0	.8	1	<.1	.4	.1	4	.02	.5	<.1	<.5	<.1	2	<.1	<.1	<.1	<.1	.10	<.001	<.1	1.5	<.01	2	<.001	3	<.01	.421	<.01	.2	.01	.1	<.1	<.05	<.1
E 178001	.9	18.9	23.9	78	.1	34.6	15.8	845	3.60	4.6	1.1	1.6	9.1	294	.1	.3	.3	14	8.38	.033	10	44.8	1.50	70	.012	3	2.08	.033	.12	.4	.01	3.2	<.1	.11	.7
E 178002	1.3	29.0	17.3	88	.1	31.5	16.3	735	3.48	18.5	1.1	1.9	9.5	306	<.1	.4	.3	9	9.82	.030	4	16.4	1.76	45	.009	4	1.04	.029	.13	.8	.01	3.8	<.1	.23	.3
E 178003	.8	27.6	10.1	86	.1	36.2	16.1	430	3.53	5.9	1.0	2.0	9.8	216	<.1	.3	.1	14	6.53	.031	7	34.8	1.60	33	.012	3	1.82	.042	.13	.4	.01	3.2	<.1	.08	.6
E 178004	1.1	28.6	14.4	92	.1	40.6	19.4	700	4.10	8.2	1.4	1.1	11.1	305	.1	.4	.3	13	7.48	.030	8	17.0	1.64	45	.005	3	1.00	.080	.13	.7	.02	4.3	.1	.21	.3
E 178005	.9	23.2	18.4	74	.1	33.5	16.8	757	3.51	4.6	1.0	2.4	9.0	429	.1	.2	.4	16	12.13	.028	16	37.5	1.46	47	.016	4	1.87	.054	.13	.2	.01	3.6	.1	.22	.6
E 178006	1.5	19.0	17.5	61	.1	29.3	12.8	694	2.99	3.4	1.0	3.1	7.3	389	.1	.1	.2	12	10.56	.024	10	26.6	1.21	38	.013	2	1.55	.033	.11	1.6	.01	2.9	<.1	.27	.5
E 178007	.8	17.8	10.3	73	.1	34.7	15.7	832	3.79	8.3	1.1	1.9	9.8	323	<.1	.2	.2	13	10.49	.030	11	29.1	1.89	48	.012	2	1.74	.059	.14	.2	.01	3.9	.1	.16	.5
E 178008	1.1	22.6	13.6	72	.2	32.3	15.3	749	3.35	5.0	1.1	2.0	10.0	362	.1	.2	.2	11	10.74	.038	11	24.1	1.61	38	.012	2	1.58	.038	.13	1.0	.02	3.5	.1	.19	.5
E 178009	.6	24.0	20.0	90	.3	33.7	16.8	769	3.50	10.8	1.0	2.2	9.8	291	.1	.3	.2	12	9.20	.028	9	31.3	1.60	37	.011	4	1.71	.044	.12	.2	.01	3.2	.1	.25	.5
E 178010	1.2	22.0	13.4	77	.2	35.5	18.6	732	3.74	16.5	1.4	2.1	10.4	303	.1	.3	.2	12	8.41	.027	6	26.4	1.58	49	.012	4	1.80	.065	.12	1.0	.02	3.6	.1	.24	.6
E 178011	1.3	12.0	5.5	53	<.1	24.6	12.2	458	2.85	8.3	.9	2.2	7.2	218	<.1	.1	.1	11	7.15	.025	7	43.0	1.16	37	.011	2	1.31	.057	.12	.7	.01	3.1	<.1	.18	.4
E 178012	.9	17.2	11.0	57	<.1	29.9	15.3	901	3.61	16.9	1.0	2.1	9.8	260	<.1	.3	.3	7	11.09	.025	21	17.5	1.78	31	.007	2	.92	.047	.10	1.0	.01	3.3	<.1	.30	.3
E 178013	.9	18.2	10.9	88	.1	37.9	18.5	612	3.96	23.9	1.3	1.3	10.5	208	<.1	.3	.2	11	8.83	.029	5	31.7	1.84	40	.011	6	1.51	.061	.13	.3	.01	3.9	<.1	.24	.5
E 178014	.6	22.2	14.4	76	<.1	32.0	17.2	742	3.63	5.3	1.3	2.0	11.3	356	<.1	.2	.2	11	11.80	.045	18	22.1	1.70	46	.011	2	1.58	.059	.13	.5	.01	3.9	<.1	.28	.5
E 178015	1.1	23.6	12.2	80	.1	37.4	17.7	704	3.83	6.5	1.3	1.6	10.3	307	.3	.1	.2	16	10.51	.027	14	36.8	1.64	34	.008	2	1.63	.049	.13	.2	<.01	3.7	<.1	.44	.6
E 178016	.9	29.9	14.4	90	.2	40.7	19.5	566	4.06	5.9	1.0	1.7	11.6	165	.1	.2	.3	14	5.52	.026	9	30.5	1.81	38	.011	2	1.94	.057	.14	.8	.01	3.4	<.1	.23	.6
E 178017	1.4	58.1	11.7	112	.2	130.2	32.2	1035	5.54	30.6	.7	1.6	4.6	392	.1	.7	.2	60	11.57	.119	8	170.2	2.61	27	.009	1	2.24	.029	.07	.2	<.01	8.2	<.1	.29	.8
E 178018	.9	30.2	21.7	116	.1	47.1	23.2	541	4.47	10.9	1.3	1.9	11.9	158	.1	.1	.5	15	4.65	.030	4	32.1	1.62	33	.014	4	2.02	.059	.11	.9	<.01	3.4	<.1	.45	.7
E 178019	.5	28.1	18.3	91	<.1	37.7	19.7	647	4.21	5.1	1.2	2.8	11.1	178	.1	.3	.3	13	5.49	.034	10	30.0	1.61	39	.010	2	1.92	.058	.15	.1	.01	4.0	.1	.39	.6
E 178020	1.1	23.3	12.9	62	.1	34.4	16.3	674	3.81	33.2	1.0	1.1	10.6	121	.1	.2	.3	8	5.47	.024	6	18.5	1.61	32	.008	2	1.04	.061	.14	1.4	<.01	3.6	<.1	.25	.3
RE E 178020	1.2	21.9	11.8	60	.1	32.4	16.0	651	3.68	32.2	1.1	1.3	10.0	121	.1	.1	.3	8	5.26	.024	6	18.6	1.55	32	.009	2	1.06	.060	.13	1.5	.01	3.5	<.1	.25	.3
RRE E 178020	.8	17.9	9.3	75	.1	34.5	16.8	655	3.78	33.0	1.0	2.7	10.0	116	.1	.1	.2	8	5.31	.024	6	28.8	1.56	33	.010	1	1.06	.063	.13	.4	<.01	3.5	<.1	.27	.3
E 178021	.9	22.2	24.9	91	.1	37.9	17.4	740	3.62	22.7	1.1	.7	11.3	232	.1	.2	.3	5	9.14	.029	10	11.6	1.69	32	.003	3	.60	.062	.12	.9	.01	3.5	<.1	.29	.2
E 178022	.9	22.1	10.8	79	.1	34.9	16.3	775	3.63	5.1	1.0	2.6	10.6	365	<.1	.2	.1	13	9.16	.029	14	41.7	1.51	40	.012	1	1.82	.054	.12	.6	<.01	3.9	<.1	.07	.6
E 178023	.9	24.8	28.9	81	.1	34.2	15.8	737	3.33	2.3	1.3	2.5	9.9	348	.2	.1	.3	17	9.87	.030	14	27.4	1.39	44	.013	3	1.75	.052	.15	.7	<.01	3.7	<.1	.07	.6
E 178024	.8	25.3	14.3	85	.1	38.9	17.6	645	3.94	17.0	1.5	3.3	11.3	204	<.1	.3	.2	12	6.22	.027	9	32.3	1.63	52	.011	2	1.58	.082	.14	.4	<.01	3.9	.1	.31	.5
E 178025	1.4	23.8	14.9	59	<.1	32.5	14.8	923	3.45	7.0	1.4	1.6	10.6	324	.1	.2	.3	6	13.70	.026	19	12.2	2.04	31	.003	1	.75	.035	.10	.7	<.01	3.3	<.1	.27	.2
E 178026	1.1	25.3	10.0	83	<.1	33.7	16.2	693	3.69	4.6	1.5	1.1	10.9	217	<.1	.1	.2	14	6.49	.024	8	34.3	1.94	51	.009	1	1.56	.069	.15	.4	<.01	3.7	<.1	.15	.5
E 178027	2.0	22.6	64.5	76	.1	34.2	17.9	418	3.73	20.2	1.3	2.0	8.9	149	<.1	.1	.4	7	5.51	.018	4	23.6	1.58	40	.007	1	1.07	.059	.11	2.0	<.01	2.9	<.1	.74	.4
E 178028	2.0	20.8	8.1	144	.1	33.1	14.8	522	3.47	24.5	1.2	.5	9.0	208	.1	.1	.2	6	8.20	.023	4	23.9	1.74	45	.003	2	.62	.064	.12	.5	<.01	3.1	<.1	.47	.2
E 178029	1.1	24.6	11.0	66	.8	26.1	14.6	583	3.40	15.3	1.2	.6	8.5	411	.1	.3	.2	6	11.89	.020	6	10.6	1.85	90	.001	1	.69	.069	.10	6.7	<.01	4.3	<.1	.23	.2
E 178030	1.3	25.3	9.6	79	.1	34.3	14.6	492	3.55	10.0	1.8	2.7	8.7	195	<.1	.2	.2	9	6.32	.022	7	18.7	1.65	98	.002	1	1.19	.057	.11	1.4	<.01	3.5	<.1	.17	.4
E 178031	1.1	26.3	8.6	81	.1	43.1	18.9	511	3.91	13.9	1.2	1.8	10.3	111	.1	.2	.2	12	5.60	.025	6	28.6	1.87	57	.011	3	1.42	.059	.12	.4	.01	3.9	<.1	.25	.5
E 178032	1.5	39.9	12.5	73	.1	38.4	18.4	519	4.07	17.4	1.5	1.3	11.4	110	<.1	.1	.3	9	5.53	.022	3	20.6	1.84	41	.012	2	1.23	.052	.12	1.3	<.01	3.3	<.1	.52	.4



Cross Lake Minerals PROJECT SUANNELL FILE # A204375



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
E 178033	1.0	14.4	7.5	71	<.1	37.1	15.8	484	3.41	13.6	1.4	1.7	12.4	118	<.1	.1	.1	9	5.48	.025	5	24.3	1.78	63	.006	2	1.13	.043	.11	.2	.01	3.6	<.1	.14	4
E 178034	1.6	38.6	7.9	78	<.1	38.0	16.8	451	3.39	13.3	.9	.8	10.8	130	<.1	.2	.1	10	6.03	.024	6	22.2	1.67	55	.006	2	1.26	.050	.11	1.5	<.01	3.2	<.1	.16	4
E 178035	1.2	32.4	9.0	56	<.1	30.1	15.4	413	3.10	18.3	1.5	1.0	9.3	101	<.1	.2	.3	8	4.54	.021	4	27.7	1.50	51	.005	1	.96	.073	.11	.3	<.01	3.1	<.1	.55	3
E 178036	.4	19.0	13.7	62	<.1	26.6	13.3	614	2.79	3.7	.9	<.5	9.9	475	<.1	.1	.2	10	14.54	.024	19	18.1	1.52	36	.009	1	1.40	.042	.14	.1	.01	4.2	<.1	.17	5
E 178037	.8	15.8	12.6	60	<.1	27.0	13.7	711	2.96	12.0	1.0	1.2	10.0	362	<.1	.2	.2	7	12.02	.031	20	17.9	1.73	32	.007	1	.84	.044	.12	.1	<.01	3.9	<.1	.20	3
E 178038	1.6	8.4	7.5	42	<.1	21.2	10.1	665	2.15	21.5	.6	1.5	5.8	399	<.1	.1	.1	6	11.63	.017	9	13.6	1.07	35	.005	1	.69	.032	.10	1.7	.01	2.9	<.1	.12	2
E 178039	.7	22.9	23.7	89	.1	37.0	17.5	633	4.08	19.4	1.8	1.3	12.3	140	.1	.3	.2	15	2.58	.032	18	33.4	1.02	72	.004	3	1.80	.027	.18	.4	<.01	3.7	.1	.25	6
E 178040	.8	18.1	14.8	62	<.1	29.8	11.7	423	2.90	20.0	1.9	<.5	9.3	610	.1	.3	.2	6	12.83	.035	8	9.7	.73	67	.001	2	.60	.018	.13	.9	<.01	3.1	.1	.73	2
E 178041	.7	19.4	15.3	81	<.1	32.7	14.9	401	3.29	30.3	2.0	.7	10.2	350	.1	.5	.2	7	7.92	.031	5	17.8	.81	60	.002	1	.86	.020	.14	.3	<.01	2.9	.1	.65	3
E 178042	1.3	19.3	16.8	79	<.1	30.1	16.3	453	3.23	33.8	1.8	3.5	12.3	91	<.1	.5	.1	9	1.68	.046	12	17.4	.82	58	.002	1	1.05	.023	.15	1.4	.01	2.6	.1	.15	4
E .043	.8	20.2	14.1	91	<.1	36.7	19.6	473	3.94	44.4	1.6	4.7	11.2	67	<.1	.4	.1	16	1.00	.021	13	34.2	1.06	62	.003	2	1.58	.023	.16	.3	.01	2.9	.1	.25	6
E 178044	2.0	31.3	13.6	84	.1	64.8	21.3	818	4.26	35.0	1.4	2.1	12.4	128	.1	.7	.2	19	1.66	.051	9	45.7	1.68	61	.003	3	1.76	.015	.15	1.3	<.01	3.5	.1	.35	5
E 178045	.7	23.3	12.5	93	.1	39.3	19.7	549	4.54	30.5	1.7	.8	10.8	86	.1	.6	.2	12	1.37	.027	9	24.6	1.07	71	.002	2	1.09	.022	.14	.5	<.01	3.6	.1	.45	4
E 178046	1.2	24.9	11.8	65	.1	34.7	17.8	523	3.76	65.6	1.5	9.7	11.0	97	.1	.5	.2	7	1.83	.020	9	15.0	.83	55	.002	9	.85	.037	.17	1.5	.01	3.1	.1	.58	3
E 178047	.6	27.0	75.4	171	.1	32.0	13.9	542	3.43	45.3	1.7	.6	9.2	279	.9	.8	.3	6	7.02	.033	5	16.3	.97	62	.001	2	.38	.030	.12	.3	.01	3.4	.1	.53	1
E 178048	1.0	24.1	20.1	82	.1	36.8	17.5	672	4.23	27.2	1.5	<.5	10.9	139	<.1	.6	.3	12	2.72	.041	12	17.9	1.07	78	.002	4	.90	.019	.15	1.4	.01	4.1	.1	.36	3
E 178049	3.4	26.7	16.6	92	.1	33.0	14.1	384	3.25	35.0	2.1	.8	5.6	302	.4	2.3	.2	8	8.05	.035	4	12.9	1.20	92	<.001	1	.27	.019	.11	.5	.01	3.6	.1	1.29	1
E 178050	4.0	28.5	20.8	95	.2	39.5	15.9	349	3.34	32.5	3.2	<.5	6.6	125	.3	3.2	.2	7	4.57	.046	4	7.5	1.23	85	<.001	1	.30	.019	.12	1.2	.01	3.8	.1	1.38	1
RE E 178050	4.0	28.7	22.4	94	.2	40.4	16.2	355	3.42	31.8	3.2	<.5	6.7	125	.4	3.2	.2	8	4.66	.048	4	8.2	1.24	85	.001	1	.32	.020	.13	1.2	.01	3.9	.1	1.36	1
RRE E 178050	4.2	30.2	20.1	84	.2	42.1	16.7	324	3.26	33.5	3.2	<.5	6.8	113	.3	3.3	.3	7	4.14	.048	4	8.1	1.12	73	<.001	2	.28	.019	.12	1.2	.02	3.8	.1	1.35	1
E 178051	5.0	60.6	33.5	96	.4	47.4	18.2	473	3.99	71.6	1.9	<.5	5.7	134	.6	3.1	.3	7	3.81	.079	3	26.5	1.13	84	.001	2	.27	.015	.12	.7	.01	3.0	.1	2.86	1
E 178052	25.8	15.8	40.7	106	.4	30.7	7.2	652	1.98	31.3	4.8	<.5	3.7	203	.6	3.7	.1	27	6.23	.042	3	10.3	1.82	180	.001	1	.16	.006	.07	2.3	.01	2.1	.1	1.37	<.1
E 178053	28.0	31.1	55.1	136	.4	35.4	10.2	547	2.28	29.4	5.3	<.5	4.1	205	.6	4.2	.2	22	6.60	.046	3	31.6	1.48	200	<.001	2	.20	.009	.09	1.4	.01	2.1	.1	1.58	1
E 178054	3.8	21.2	14.1	68	.1	34.1	12.4	305	2.86	28.6	2.6	.8	6.6	105	.1	3.4	.2	6	4.52	.044	4	19.5	1.14	66	<.001	1	.24	.015	.13	.5	.02	3.3	.1	.99	1
E 178055	2.6	18.6	100.0	338	.2	24.8	8.7	636	2.69	24.7	2.6	<.5	5.6	164	.6	3.5	.2	4	9.67	.068	4	6.2	1.23	54	.001	1	.21	.010	.12	1.0	.05	2.9	.1	1.04	1
E 178056	2.1	28.1	6782.6	29701	7.6	19.4	14.4	603	2.22	57.3	1.5	.7	3.6	201	46.0	10.4	.1	3	11.88	.039	3	17.7	.48	44	<.001	1	.17	.008	.10	.7	5.96	1.6	.3	3.12	2
E 178057	4.0	23.0	912.3	9277	1.9	26.4	15.8	872	3.37	46.4	2.0	<.5	4.2	159	14.8	6.5	.2	4	10.66	.043	2	6.1	1.01	32	<.001	1	.17	.010	.10	1.2	.52	2.2	.1	2.81	1
E 178058	.9	5.5	44.0	272	.2	12.1	7.1	3935	3.71	18.8	.7	2.7	2.5	123	.4	1.5	<.1	5	12.33	.026	1	21.1	4.04	32	<.001	1	.11	.005	.06	.5	.05	1.1	.1	1.02	<.1
F 9059	.9	10.2	5.4	25	<.1	36.0	16.5	884	3.46	36.9	.4	1.4	6.8	29	<.1	2.1	.3	2	1.22	.030	8	4.9	.62	51	<.001	1	.18	.008	.12	.8	.02	1.9	.1	.79	1
L .060	.6	36.5	4.2	29	.1	38.5	20.6	1316	4.69	26.8	.7	.9	6.5	42	<.1	1.1	.4	3	2.08	.041	9	14.0	.91	40	<.001	1	.21	.007	.13	.5	.01	2.3	<.1	.58	1
E 178061	.8	18.9	13.5	117	.1	17.6	10.3	848	2.42	13.4	.9	<.5	6.5	203	.1	1.3	.2	4	13.79	.080	4	4.0	.84	69	.001	1	.18	.009	.10	.6	.01	2.4	.1	.78	1
E 178062	1.0	28.4	7.8	86	<.1	27.1	15.3	686	3.11	6.1	.6	.7	8.0	77	<.1	.7	.2	3	7.32	.071	2	4.4	.78	57	.001	<.1	.20	.010	.10	.7	.01	1.9	.1	1.00	1
E 178063	.9	28.1	12.9	70	<.1	23.8	13.8	813	2.79	8.4	.7	1.3	8.4	101	<.1	.9	.2	4	9.68	.097	2	9.9	.81	90	.002	1	.27	.014	.13	.2	.01	2.0	.1	1.05	1
E 178064	5.6	19.0	25.1	217	.1	45.0	12.8	586	2.53	19.4	1.6	1.2	6.2	92	.9	1.6	.2	11	7.72	.084	2	13.5	.79	94	.002	1	.24	.017	.11	.3	.01	1.8	.2	1.11	1
STANDARD DS4	6.7	121.3	28.9	160	.3	35.4	12.3	812	3.14	22.5	6.5	27.6	3.9	27	5.3	4.9	5.0	74	.54	.082	16	169.5	.59	140	.094	2	1.72	.030	.15	4.0	.27	3.7	1.2	.08	6

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



Cross Lake Minerals PROJECT SUANNELL FILE # A204375



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
E 178065	25.4	28.1	20.1	284	.1	92.8	13.4	233	2.40	17.9	6.2	<.5	4.7	57	2.2	1.5	.2	22	2.50	.042	3	7.1	.75	98	<.001	2	.20	.014	.10	1.4	.02	1.9	.1	1.19	<1
E 178066	7.4	48.7	18.9	152	.1	57.8	14.9	232	3.01	30.1	2.3	<.5	6.4	66	.7	.5	.3	10	3.29	.063	3	28.9	.67	88	<.001	2	.23	.020	.11	.6	.01	1.6	.1	1.68	1
E 178067	2.7	20.8	8.0	60	.1	43.0	14.3	352	3.27	17.0	1.7	<.5	7.4	66	.1	.6	.2	4	3.76	.048	3	6.3	1.11	48	<.001	<1	.23	.021	.10	1.1	.01	2.4	.1	1.14	1
E 178068	2.9	20.2	10.3	92	.1	38.6	13.6	375	3.41	8.5	1.5	.9	6.7	63	.1	.5	.2	3	3.87	.048	4	8.1	1.13	52	<.001	1	.27	.022	.10	1.7	.01	2.0	<.1	1.15	1
E 178069	4.8	17.6	10.9	86	.1	43.9	13.0	340	3.12	19.3	2.1	<.5	6.9	75	.3	.4	.2	6	4.09	.069	3	20.4	1.16	62	<.001	1	.26	.025	.12	.6	.01	2.0	.1	1.00	1
E 178070	2.2	35.5	10.7	111	.1	51.6	19.0	333	3.82	5.1	1.6	<.5	7.0	60	.5	.7	.2	5	3.20	.039	4	27.2	.97	85	<.001	1	.40	.026	.12	.7	<.01	1.8	.1	1.77	1
E 178071	2.0	28.4	11.2	74	.1	46.5	21.4	517	3.90	10.2	1.4	<.5	8.2	57	.2	.6	.2	6	2.68	.038	7	14.0	.98	53	<.001	<1	.72	.022	.11	1.3	.01	2.8	.1	.78	2
E 178072	1.1	27.2	10.2	84	.1	35.7	16.0	578	4.09	12.8	.9	.5	6.5	56	.1	.5	.2	7	1.91	.042	9	31.5	.91	66	.001	1	.90	.027	.10	.5	.01	2.9	.1	.69	3
E 178073	.8	28.5	12.8	60	.1	47.7	21.2	1077	5.03	20.9	1.0	.7	4.5	63	<.1	.3	.5	5	3.21	.035	5	15.5	1.32	112	<.001	1	.82	.030	.11	.8	.01	3.1	.1	1.26	2
E 178074	.9	10.6	4.9	86	<.1	44.2	19.9	1112	5.04	10.2	.6	<.5	7.1	42	<.1	.3	.2	9	1.83	.031	15	27.3	1.11	75	.001	2	1.38	.027	.11	.9	.01	2.7	<.1	.21	4
RE 178074	1.0	11.0	5.3	86	<.1	46.2	21.2	1196	5.29	10.1	.6	<.5	7.9	47	<.1	.4	.2	10	1.76	.032	17	29.2	1.19	82	.002	1	1.49	.029	.11	1.1	.01	2.9	<.1	.20	4
RRE E 178074	.7	11.3	4.9	89	<.1	46.2	21.0	1151	5.01	12.1	.6	<.5	7.5	47	<.1	.4	.2	10	1.96	.036	16	37.1	1.20	94	.001	3	1.55	.030	.13	.4	.01	2.8	<.1	.18	5
E 178075	.3	16.4	8.1	89	<.1	44.9	17.5	761	4.37	7.5	.5	1.6	10.1	31	<.1	.4	.3	12	1.11	.039	27	33.3	1.00	79	.001	3	1.78	.030	.12	.1	<.01	2.7	<.1	.06	5
E 178076	.6	29.5	23.9	81	.1	41.2	16.5	891	4.44	16.0	.5	1.5	9.2	44	<.1	.4	.3	8	1.74	.046	21	25.2	1.10	84	.001	1	1.06	.028	.12	.3	.01	2.1	<.1	.08	3
E 178077	1.0	22.0	18.2	202	.1	51.2	19.7	728	4.81	26.8	.7	1.2	6.6	65	.5	.5	.2	7	3.14	.044	6	19.1	1.29	79	.001	2	1.05	.026	.11	1.0	.02	2.7	<.1	.73	3
E 178078	.9	22.3	11.7	90	<.1	50.7	21.6	651	4.00	7.4	.8	<.5	9.4	46	.1	.3	.1	10	1.17	.036	15	30.1	1.01	99	.001	2	1.39	.028	.18	.3	.01	2.0	.1	.34	3
E 178079	1.3	18.1	17.7	104	<.1	51.4	19.7	646	4.20	8.0	.8	.7	7.6	57	.1	.3	.1	12	1.69	.035	13	28.1	1.16	95	.001	1	1.53	.022	.13	.9	.01	2.0	.1	.21	4
STANDARD DS4	6.8	128.9	31.0	161	.3	37.6	12.6	832	3.23	22.8	6.1	27.5	3.8	29	5.4	5.2	5.3	74	.55	.088	18	165.9	.61	145	.088	3	1.68	.032	.16	4.0	.29	3.6	1.1	.08	6

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

ACME ANALYTICAL LABORATORIES I.TD.



852 East Hastings Street • Vancouver, British Columbia • CANADA • V6A 1R6
Telephone: (604) 253-3158 • Fax: (604) 253-1716 • Toll free: 1-800-990-ACME (2263) • e-mail: info@acmelab.com

Mr. Jim Miller-Tait, P.Geo.
Vice President, Exploration
Cross Lake Minerals Ltd.
240 - 800 West Pender St.
Vancouver, B.C., V6C 2V6

May 23, 2002

Dear Jim,

Thank you for considering Acme Laboratory for your analytical requirements. Acme Labs respectfully submits this proposal for sample preparation and analysis for your evaluation.

Code R150 - Drill Core, Drill Chip and Rock Preparation

Rock and core preparation, including drying; crushing (up to 4 kg) in a "Rhino Jaw Crusher" to 70% passing -10 mesh (2 mm), splitting 250g and pulverizing using a "Ring and Puck" pulverizer to 95% passing -150 mesh (106 microns).

Price per sample: \$ 4.25 Canadian

Coded SS80 - Soil and Sediment Preparation

Samples will be dried at 60°C, sieved (up to) 100 grams to -80 mesh (180 microns)

Price per sample: \$ 1.28 Canadian

Group 1DA - 35-element ICP-MS analysis with an Aqua Regia digestion on a 10 gram split

Element	Detection Levels	Element	Detection Levels
Ag	0.1 ppm to 100 ppm	Al*	0.01% to 10%
As	0.5 ppm to 10,000 ppm	Au	0.5 ppb to 100 ppm
B*	1 ppm to 2,000 ppm	Ba*	1 ppm to 1,000 ppm
Bi	0.1 ppm to 2,000 ppm	Ca*	0.01% to 40%
Cd	0.1 ppm to 2,000 ppm	Co	0.1 ppm to 2,000 ppm
Cr*	1 ppm to 10,000 ppm	Cu	0.1 ppm to 10,000 ppm
Fe*	0.01% to 40%	Ga	1 ppm to 1000 ppm
Hg	0.01 ppm to 100 ppm	K*	0.01% to 10%
La*	1 ppm to 10,000 ppm	Mg*	0.01% to 30%
Mn*	1 ppm to 10,000 ppm	Mo	0.1 ppm to 2,000 ppm
Na*	0.001% to 10%	Ni	0.1 ppm to 10,000 ppm
P*	0.001% to 5%	Pb	0.1 ppm to 10,000 ppm
S	0.05% to 10%	Sb	0.1 ppm to 2,000 ppm
Sc	0.1 ppm to 100 ppm	Sr*	1 ppm to 10,000 ppm
Th*	0.1 ppm to 2,000 ppm	Ti*	0.001% to 10%
Tl	0.1 ppm to 1000 ppm	U*	0.1 ppm to 2,000 ppm
V*	1 ppm to 10,000 ppm	W*	0.1 ppm to 100 ppm
Zn	1 ppm to 10,000 ppm		

Price per sample: \$ 9.78 Canadian

AA ACME LL ANALYTICAL LABORATORIES LTD.



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Telephone: (604) 253-3158 • Fax: (604) 253-1716 • Toll free: 1-800-990-ACME (2263) • e-mail: info@acmelab.com

Service and Turnaround

The average turnaround for the above analysis will be 6 days from when the samples arrive in Vancouver; we will do everything in our power to process your samples in the least amount of time possible.

Implementation of ISO 9002 / ISO Guide 25

Acme Laboratories, Vancouver, is an ISO 9002 registered company as of 1996 and currently is working towards ISO Guide 25 accreditation for specific methods. ISO 9002 is a set of general standards for quality system management while ISO Guide 25 is specific to the technical competency of calibration and testing laboratories. Implementation of these ISO quality systems will ensure a formal documented quality system that focuses on achieving, maintaining and continually improving the quality of analysis. Acme laboratories uses internationally recognized methodologies.

Pulp Storage Policy

All pulps are stored for 1 year (no charge) prior to disposal. Clients may purchase additional storage time of rejects and pulps. The storage rate for an additional 3 years is \$7.90 per 1.2 ft³.

I hope you find the above of interest. This quotation is valid for one year from issue; all prices are in Canadian funds. Please refer to quotation number 02-070. If you have any questions or would like more information on any aspect of this quotation, please don't hesitate to contact me at (604) 253 3158 or by email at rmccaffrey@acmelab.com

Thank you for inviting us to bid on this project.

Sincerely,

Rick McCaffrey
Business Development Manager

SECTION E: DRILL HOLE LOGS

1. Diamond Drill Hole Number CS-02-11
2. Diamond Drill Hole Number CS-02-12
3. Diamond Drill Hole Number CS-02-13
4. Diamond Drill Hole Number CS-02-14

CROSS LAKE MINERALS LTD.

Diamond Drill Hole Log

Property: INGENIKA

Hole No.

Page

CS-02-11

1 of 3

Hole Co-ordinates: 6282155 N 366383 E		Collar Elevation: 828 m ASL	Total Depth: 138.68 m	Azimuth and Dip of Hole:			Comments: Acid test only; azimuth estimated	Map Reference: NTS: 94C/11E BCGS: 094C.065	Claim Name /Number: DEL 3 #379607
Date Hole Started: 18-Sep-02	Date 20-Sep-02	Date Logged: 20-Sep-02	Logged by: J. Miller-Tait	Depth	Azimuth	Dip		Core Size: NQTK	Property Location (Twp. Lot, Con. or Lat. And Long.) Latitude: 56° 39' Longitude: 125° 10' UTM: Zone 10: 6 282 000 N, 367 000 E
Exploration Co., Owner or Optionee: Owner: Teck Cominco Limited Optionee: Cross Lake Minerals Ltd.		Date submitted: AUG 20 2003	Submitted by: <i>(Signature)</i> J. MILLER-TAIT BRITISH COLUMBIA	m	°	°	Core Storage Location: on site	Drilling Contractor: F. Boisvenu Drilling Ltd. Delta, B.C. Assay Laboratory: Acme Analytical Laboratories Vancouver, B.C.	
				m	°	°			
				m	°	°			
				m	°	°			
				m	°	°			

Metres		% Recovery	Description (Color, grain size, texture, minerals, alteration, etc.)	Sample Tag No.	Sample Depth (metres)		Sample (metres)	Assays				
From	To				From	To		Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
0	6.10	0	Casing									
6.10	19.81	90%	Grey, extremely sheared to 1-2mm bands phyllite. Almost 0% finely laminated dirty grey carbonate bands at 6.10 to 13.72, to 40% at 19.81m. Abundant quartz (80%) calcite (20%) trace py stringers mainly concordant with laminated phyllite. 7.62-8.0: 2-10 cm stringers @ 30° and 70° to C.A.	178001	7.62	9.12	1.5	1.6	0.1	18.9	23.9	78
			11.28 - 13.92: several 5cm stringers @ 60° to C.A. and from 13.0 - 13.5 2 veins, contact @ 13.0 @ 5° to C.A. and @ 13.5m 50° to C.A. Light green talc (scratch w/finger rail) ~5% w/veinlets. Bedding @ 7.5m - 60° to C.A. @ 10.6m - 40° @ 13.8m - 60° @ 19.8m - 40° Trace py, euhedral, f.g. throughout veins mainly barren Gouge @ 15.7m to 16.7m.	178002	15.25	16.75	1.5	1.9	0.1	29.0	17.3	88
19.81	71.00	95%	Light-dark grey thinly bedded limestone bands (60%) interbedded with black-dark grey argillaceous siltstone (40%). Quartz (80%), calcite (20%) veins throughout from 1cm to 15cm concordant with bedding mainly. Trace pyrite throughout. Contorted in areas with folding in core.	178003	19.81	21.31	1.5	2.0	0.1	27.6	10.1	86
			Bedding @ 22m @ 70° to C.A.	178004	31.50	33.00	1.5	1.1	0.1	28.6	14.4	92
			@ 28.9m @ 30° to CA	178005	41.00	42.50	1.5	2.4	0.1	23.2	18.4	74
			@ 35.0m @ 50° to CA	178006	53.30	54.80	1.5	3.1	0.1	19.0	17.5	61
			@ 41.0m @ 30° to C.A.	178007	60.00	61.50	1.5	1.9	0.1	17.8	10.3	73
			@ 47.0m @ 60° to C.A.	178008	69.30	70.80	1.5	2.0	0.2	22.6	13.6	72

CROSS LAKE MINERALS LTD. Diamond Drill Hole Log Property: INGENIKA

Hole No. **CS-02-11** Page **2 of 3**

Hole Co-ordinates: 6282155 N 366383 E		Collar Elevation: 828 m ASL	Total Depth: 138.68 m	Azimuth and Dip of Hole:			Comments: Acid test only; azimuth estimated	Map Reference: NTS: 94C/11E BCGS: 094C.065	Claim Name /Number: DEL 3 #379607
Date Hole Started: 18-Sep-02	Date 20-Sep-02	Date Logged: 20-Sep-02	Logged by: J. Miller-Tait	Depth Collar m	Azimuth 210° °	Dip -45° °			
Exploration Co., Owner or Optionee: Owner: Teck Cominco Limited Optionee: Cross Lake Minerals Ltd.		Date submitted:	Submitted by: (Signature)	m	°	°	Core Size: NQTK	Property Location (Twp. Lot, Con. or Lat. And Long.) Latitude: 56° 39' Longitude: 125° 10' UTM: Zone 10: 6 282 000 N, 367 000 E	
				m	°	°	Core Storage Location: on site		
				m	°	°	Drilling Contractor: F. Boisvenu Drilling Ltd. Delta, B.C.		
				m	°	°	Assay Laboratory: Acme Analytical Laboratories Vancouver, B.C.		

Metres		% Recovery	Description (Colour, grain size, texture, minerals, alteration, etc.)	Sample Tag No.	Sample Depth (metres)		Sample (metres)	Assays				
From	To				From	To		Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
			@ 36.5m to 39m @ 20° to C.A.									
			Fractures along bedding planes easily.									
			Gouge zone - muddy from 33.0 to 35.0m. Mixed grey mud with rounded quartz fragments up to 5cm in size.									
			From 47 to 52m starts to steepen core angles from 60° to 70°									
			@ 56.4m @ 90° to C.A.									
			@ 62m to 68m @ 80° to C.A.									
			From 47 to 68m thinly banded interbedded 1m st (up to 2cm bands) 50% to greyish, argillaceous siltstone (50%) in 1-2mm beds up to 3-4cm beds. Fine grained euhedral pyrite throughout - trace.									
			Carbonate re-heeled breccia zone from 60.4 to 60.5cm									
			Numerous quartz/carb barren veins concordant with bedding throughout up to 10cm in thickness.									
			Odd large mass of pyrite up to 1cm in diameter, approx every 1m.									
71.00	138.68	95%	Gradational contact into mainly argillaceous siltstone - no trace carbon (ie. Graphite - none)	178009	75.00	76.50	1.5	2.2	0.3	24.0	20.0	90
			After 76m only ~10-15% is carbonate limestone bands and ~85-90% is the argillaceous siltstone.	178010	81.00	82.50	1.5	2.1	0.2	22.0	13.4	77
			Trace py throughout fig.	178011	105.70	107.20	1.5	2.2	<0.1	12.0	5.5	53
			Core angles flattening down the hole from 80-90° from 71.0m to 80m and then down to 45° at 90m.	178012	122.00	123.50	1.5	2.1	<0.1	17.2	11.0	57

CROSS LAKE MINERALS LTD.

Diamond Drill Hole Log

Property: SWANNELL

Hole No.
CS-02-12

Page
2 of 2

Hole Co-ordinates: 6282333 N 366037 E		Collar Elevation: 833 m ASL	Total Depth: 150.88 m	Azimuth and Dip of Hole:			Comments: Acid test only; azimuth estimated	Map Reference: NTS: 94C/11E BCGS: 094C.065	Claim Name /Number: DEL 5 #390517
Date Hole Started: 20-Sep-02	Date 22-Sep-02	Date Logged: 22-Sep-02	Logged by: J. Miller-Tait	Depth Collar	Azimuth 210°	Dip -45°	Core Size: NQTK	Property Location (Twp. Lot, Con. or Lat. And Long.) Latitude: 56° 39' Longitude: 125° 10' UTM: Zone 10; 6 282 000 N, 367 000 E	
Exploration Co., Owner or Optionee: Owner: Teck Cominco Limited Optionee: Cross Lake Minerals Ltd.		Date submitted:	Submitted by: (Signature)	m	°	°	Core Storage Location: on site		
				m	°	°	Drilling Contractor: F. Boisvenu Drilling Ltd. Delta, B.C.		
				m	°	°	Assay Laboratory: Acme Analytical Laboratories Vancouver, B.C.		
				m	°	°			
				m	°	°			

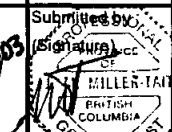
Metres		% Recovery	Description (Colour, grain size, texture, minerals, alteration, etc.)	Sample Tag No.	Sample Depth (metres)		Sample (metres)	Assays						
From	To				From	To		Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm		
			Core angles: at 60=80° to CA											
			Core angles: at 67=70° to CA	178024	84.50	86.00	1.50	3.3	0.1	25.3	14.3	85		
69.20	84.80	95%	Interbedded lmst(??) (70%) with (30%) green/grey phyllite. Bands are up to 2cm in thickness. Disseminated tr. F.g. pyrite throughout. Occasional 1-2cm bleb. Narrow concordant <10cm quartz/carb barren veins. One 40cm at 75-75.4m @ 45° to C.A. At 69m C.A. = 45° At 77m C.A. = 70° At 83m C.A. = 70°											
84.80	85.80	90%	Gouge-grey clay + quartz fragments (angular & barren) contacts at 70° to C.A.											
85.80	150.88	95%	Interbedded lmst+dolomite (60-70%) with argillaceous siltstone (grey to dark green to black). Tr. F.g pyrite throughout. Blebs up to 2cm in size. Concordant barren quartz/carb veins approx 10-15% by volume. Usually <10cm.	178025	99.00	100.50	1.50	1.6	<0.1	23.8	14.9	59		
			At 129.74 1cm bleb of f.g galena in quartz/carb 10cm vein at 70° to C.A.	178026	114.00	115.50	1.50	1.1	<0.1	25.3	10.0	83		
			Core angles @ 90m = 70°	178027	129.30	130.80	1.50	2.0	0.1	22.6	64.5	76		
			Core angles @ 94m = 45°	178028	146.50	148.00	1.50	0.5	0.1	20.8	8.1	144		
			Core angles @ 102m = 70°											
			Core angles @ 114m = 80°											
			Core angles @ 130m = 50°											
			Core angles @ 138m = 70°											
			Core angles @ 148m = 70°											
END OF HOLE														

CROSS LAKE MINERALS LTD.

Diamond Drill Hole Log

Property: SWANNELL

Hole No. **CS-02-13**
Page 1 of 1

Hole Co-ordinates: 6282175 N 365965 E		Collar Elevation: 851 m ASL	Total Depth: 74.68 m	Azimuth and Dip of Hole: Depth Azimuth Dip			Comments: Acid test only; azimuth estimated	Map Reference: NTS: 94C/11E BCGS: 094C.065	Claim Name /Number: DEL 5 390517
Date Hole Started: 22-Sep-02	Date 23-Sep-02	Date Logged: 23-Sep-02	Logged by: J. Miller-Tait	Collar m	030°	-45°	Core Size: NQTK	Property Location (Twp. Lot, Con. or Lat. And Long.) Latitude: 56° 39' Longitude: 125° 10' UTM: Zone 10; 6 282 000 N, 367 000 E	
Exploration Co., Owner or Optionee: Owner: Teck Cominco Limited Optionee: Cross Lake Minerals Ltd.		Date submitted:	Submitted by:  J. MILLER-TAIT BRITISH COLUMBIA	m	°	°	Core Storage Location: on site		
				m	°	°	Drilling Contractor: F. Boisvenu Drilling Ltd. Delta, B.C.		
				m	°	°	Assay Laboratory: Acme Analytical Laboratories Vancouver, B.C.		

Metres		% Recovery	Description (Colour, grain size, texture, minerals, alteration, etc.)	Sample Tag No.	Sample Depth (metres)		Assays					
From	To				From	To	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
0	18.9	0%	Casing	178029	19.80	21.30	1.50	0.6	0.8	24.6	11.0	66
				178030	21.30	22.80	1.50	2.7	0.1	25.3	9.6	79
18.90	28.80	85%	Fault gouge. Grey-green mud with fragmented quartz throughout. Fragments angular and up to 2cm in size. Trace py-vfg and disseminated throughout gouge. Contacts irregular.	178031	22.80	24.30	1.50	1.8	0.1	26.3	8.6	81
				178032	24.30	25.80	1.50	1.3	0.1	39.9	12.5	73
28.80	47.24	95%	Dark grey-black argillaceous siltstone (90%). Dirty grey limestone bands (5%) 5% barren quartz/carb veins concordant to bedding. Core angles vary from 5° to 30° to c.axis. Trace vfg py disseminated.	178033	25.80	27.30	1.50	1.7	<0.1	14.4	7.5	71
				178034	22.30	28.80	1.50	0.8	<0.1	38.6	7.9	78
47.24	59.00	98%	Dirty grey lmst (60%) interbedded with argillaceous siltstone (40%) less quartz/carb (barren) veins, only 3 main ones up to 20cm in thickness. Core angles from 5° to 30° to c axis. Trace vfg pyrite disseminated.	178035	38.10	39.60	1.50	1.0	<0.1	32.4	9.0	56
				178036	51.90	53.40	1.50	<0.5	<0.1	19.0	13.7	62
				178037	65.70	67.20	1.50	1.2	<0.1	15.8	12.6	60
59.00	74.68	95%	Some ???? as 28.8-47.24 of mainly (60.6) dark grey-black argillaceous siltstone interbedded with dirty grey lmst (10%) but more barren quartz/carb veining (30%), core angles at 5-30° to C Axis Tr. Vfg pyrite throughout.	178038	71.20	72.70	1.50	1.5	<0.1	8.4	7.5	42
END OF HOLE												

CROSS LAKE MINERALS LTD.

Diamond Drill Hole Log

Property: SWANNELL

Hole No. CS-02-14 Page 1 of 3

Hole Co-ordinates: 6278328 N 367115 E		Collar Elevation: 820 m ASL	Total Depth: 127.0 m	Azimuth and Dip of Hole:			Comments: Acid test only; azimuth estimated	Map Reference: NTS: 94C/11E BCGS: 094C.065	Claim Name /Number: KLU 2-3 #238504
Date Hole Started: 24-Sep-02		Date 26-Sep-02	Date Logged: 26-Sep-02	Logged by: J. Miller-Tait	Depth	Azimuth		Dip	Property Location (Twp. Lot, Con. or Lat. And Long.) Latitude: 56° 39' Longitude: 125° 10' UTM: Zone 10; 6 282 000 N, 367 000 E
Exploration Co., Owner or Optionee: Owner: Teck Cominco Limited Optionee: Cross Lake Minerals Ltd.		Date submitted:	Submitted by: J. Miller-Tait	Signature:	Collar	235°	-47°	Core Size: NQTK	
					m	.	.	Core Storage Location: on site	
					m	.	.	Drilling Contractor: F. Boisvenu Drilling Ltd. Delta, B.C.	
					m	.	.	Assay Laboratory: Acme Analytical Laboratories Vancouver, B.C.	
					m	.	.		
					m	.	.		
					m	.	.		

Metres		% Recovery	Description (Colour, grain size, texture, minerals, alteration, etc.)	Sample Tag No.	Sample Depth (metres)		Sample (metres)	Assays					
From	To				From	To		Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	
0	18.9	0%	Casing										
18.90	41.15	95%	Light green volcanic ash tuff. Trace fg pyrite in narrow (4cm) quartz veinlets. Chlorite alteration in shear zones. - Bedding at 60° to core axis - Rubbly contact at 41.15 but appears to be ~60°	178039	25.90	27.40	1.50	1.3	0.1	8.4	7.5	42	
				178040	41.10	42.60	1.50	< .5	< .1	18.1	14.8	62	
				178041	42.60	44.10	1.50	0.7	< .1	19.4	15.3	81	
				178042	44.10	45.60	1.50	3.5	< .1	19.3	16.8	79	
41.15	51.30	95%	Interbedded light green ashtuff (40%) with (40%) dirty grey limestone, (20%) dark green chloritic shear/breccia zones. Trace fg pyrite mainly in the shear zones and narrow quartz (<1cm) stringers. Soft talcose along shears. Bedding @ 80° to C.A.	178043	45.60	47.10	1.50	4.7	< .1	20.2	14.1	91	
				178044	47.10	48.60	1.50	2.1	0.1	31.3	13.6	84	
51.30	67.50	90%	Graphitic (30%) fault zone of limestone (dirty grey) fragments. - angular and rounded and up to 10cm in size. Silicified where competent (30%). - Fig disseminated pyrite ~1-3% throughout - sphalerite (8-10%), galena (1-3%), pyrite (5-8%) from 64.4-66.5m - hard to tell amount of Sx because of graphitic gouge. Base metals are in silicified limestone mainly. Partly fragmented and resealed with silica. Some fragments up to 3cm with base metal mineralization. - Increasing limestone content toward 67.5m. - Bedding contacts @ 60-70° to C.A.	178045	48.60	50.10	1.50	0.8	0.1	23.3	12.5	93	
				178046	50.10	51.60	1.50	9.7	0.1	24.9	11.8	65	
				178047	51.60	53.10	1.50	0.6	0.1	27.0	75.4	171	
				178048	53.10	54.60	1.50	< .5	0.1	24.1	20.1	82	
				178049	54.60	56.10	1.50	0.8	0.1	26.7	16.6	92	
				178050	56.10	57.60	1.50	< .5	0.2	28.5	20.8	95	
				178051	57.60	59.10	1.50	< .5	0.4	60.6	33.5	96	
				178052	59.10	60.60	1.50	< .5	0.4	15.8	40.7	106	
67.50	85.30	95%	Light green/grey phyllite. Bedding contacts at 80 to c axis. Trace fg pyrite and occasional blebs up to 1cm in size. Narrow (<1 cm) quartz/carb stringers mainly concordant with bedding.	178053	60.60	62.10	1.50	< .5	0.4	31.1	55.1	136	
				178054	62.10	63.60	1.50	0.8	0.1	21.2	14.1	68	

CROSS LAKE MINERALS LTD.

Diamond Drill Hole Log

Property: SWANNELL

Hole No. CS-02-14	Page 2 of 3
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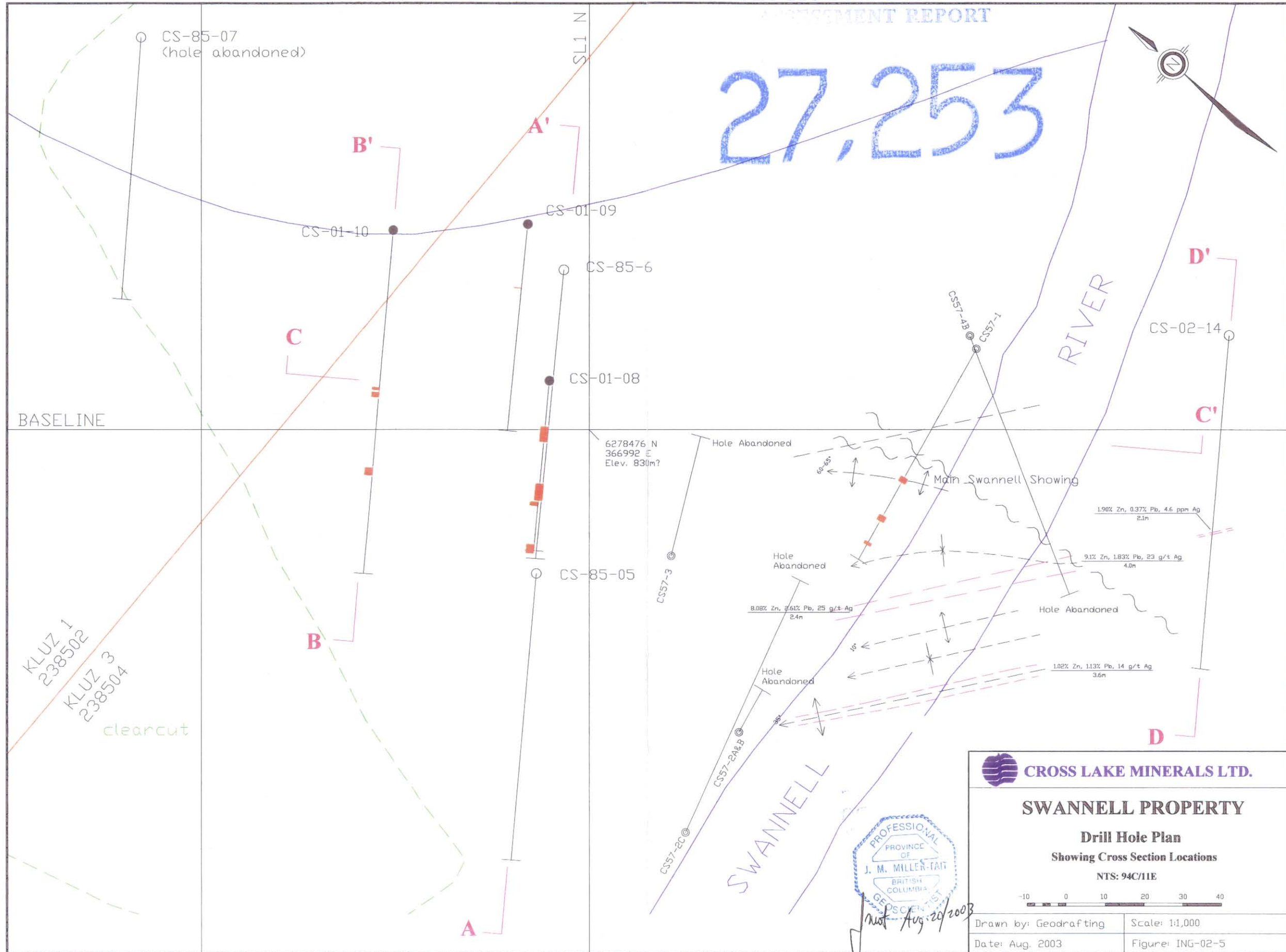
Hole Co-ordinates: 6278328 N 367115 E		Collar Elevation: 820 m ASL	Total Depth: 127.0 m	Azimuth and Dip of Hole:			Comments: Acid test only; azimuth estimated	Map Reference: NTS: 94C/11E BCGS: 094C.065	Claim Name /Number: KLU 2-3 #238504
Date Hole Started: 24-Sep-02	Date 26-Sep-02	Date Logged:	Logged by: J. Miller-Tait	Depth Collar	Azimuth 235°	Dip -47°		Core Size: NQTK	Property Location (Twp. Lot, Con. or Lat. And Long.) Latitude: 56° 39' Longitude: 125° 10' UTM: Zone 10; 6 282 000 N, 367 000 E
Exploration Co., Owner or Optionee: Owner: Teck Cominco Limited Optionee: Cross Lake Minerals Ltd.		Date submitted:	Submitted by: (Signature)	m	°	°	Core Storage Location: on site		
				m	°	°	Drilling Contractor: F. Boisvenu Drilling Ltd. Delta, B.C.		
				m	°	°	Assay Laboratory: Acme Analytical Laboratories Vancouver, B.C.		
				m	°	°			
				m	°	°			

Metres		% Recovery	Description (Colour, grain size, texture, minerals, alteration, etc.)	Sample Tag No.	Sample Depth (metres)		Sample (metres)	Assays				
From	To				From	To		Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
85.30	127.00	95%	Dark green to black argillaceous siltstone. From 95-103m the siltstone is siliceous with more disseminated and blebs of pyrite up to 3-5%.	178055	63.60	64.40	1.50	< .5	0.2	18.6	100.0	338
				178056	64.40	65.40	1.50	0.7	7.6	28.1	6782.6	29701
			- Core angles @ 60° to bedding.	178057	65.40	66.50	1.50	< .5	1.9	23.0	912.3	9277
				178058	66.50	68.00	1.50	2.7	0.2	5.5	44.0	272
			- Quartz/carb veining - mainly barren or trace pyrite less than 5cm in thickness, concordant with bedding.	178059	68.00	69.50	1.50	1.4	< .1	10.2	5.4	25
				178060	69.50	71.00	1.50	0.9	0.1	36.5	4.2	29
			- 117 - 120m minor silicified limestone (dirty) bands <1cm in thickness interbedded with the argillaceous siltstone.	178061	80.00	81.50	1.50	< .5	0.1	18.9	13.5	117
				178062	81.50	83.00	1.50	0.7	< .1	28.4	7.8	86
				178063	83.00	84.50	1.50	1.3	< .1	28.1	12.9	70
				178064	84.50	86.00	1.50	1.2	0.1	19.0	25.1	217
				178065	86.00	87.50	1.50	< .5	0.1	28.1	20.1	284
				178066	87.50	89.00	1.50	< .5	0.1	48.7	18.9	152
				178067	89.00	90.50	1.50	< .5	0.1	20.8	8.0	60
				178068	90.50	92.00	1.50	0.9	0.1	20.2	10.3	92
				178069	92.00	93.50	1.50	< .5	0.1	17.6	10.9	86
				178070	93.50	95.00	1.50	< .5	0.1	35.5	10.7	111
				178071	95.00	96.50	1.50	< .5	0.1	28.4	11.2	74
				178072	96.50	98.00	1.50	0.5	0.1	27.2	10.2	84
				178073	98.00	99.50	1.50	0.7	0.1	28.5	12.8	60
				178074	99.50	101.00	1.50	< .5	< .1	10.6	4.9	86
				178075	101.00	102.50	1.50	1.6	< .1	16.4	8.1	89
				178076	102.50	104.00	1.50	1.5	0.1	29.5	23.9	81
				178077	104.00	105.50	1.50	1.2	0.1	22.0	18.2	202

SECTION F: ILLUSTRATIONS

Plan Number	Title	Scale
ING-02-1 (after p.4)	General Location Plan	1:250 000
ING-02-2 (after p.4)	Location Plan with Topography	1:50 000
ING-02-3 (after p.4)	Mineral Claims	1:50 000
ING-02-4	Trench and Drill Hole Location Plan DEL 3 and 5 Mineral Claims	1:2 500
ING-02-5	Drill Hole Plan KLUZ 3 Mineral Claim	1:1 000
ING-02-6	Cross Section A-A', DEL 3 Claim Through Hole CS-02-11	1:1 000
ING-02-7	Cross Section B-B', DEL 5 Claim Through Holes CS-02-12, 13	1:1 000
ING-02-8	Cross Section D-D', KLUZ 3 Claim Through Hole CS-02-14	1:1 000

27,253



CROSS LAKE MINERALS LTD.

SWANNELL PROPERTY

Drill Hole Plan
Showing Cross Section Locations

NTS: 94C/11E

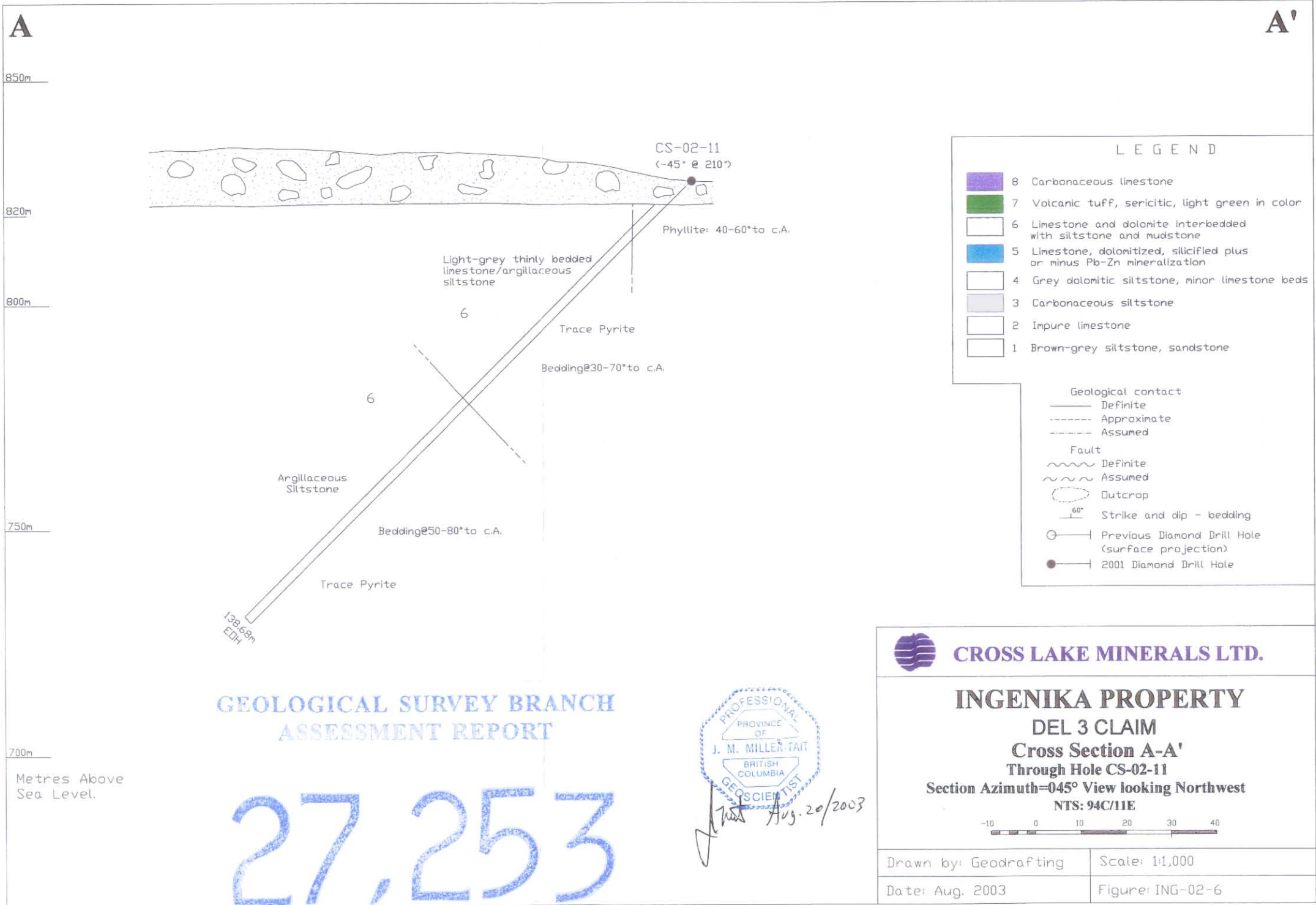
Scale: 1:1,000

Figure: ING-02-5

Drawn by: Geodrafting
Date: Aug. 2003

Prof. Aug. 20/2003





A

A'

850m

820m

800m

750m

700m

Metres Above Sea Level.

CS-02-11
(-45° @ 210°)

Phyllite: 40-60° to c.A.

Light-grey thinly bedded limestone/argillaceous siltstone

6

Trace Pyrite

Bedding@30-70° to c.A.

6

Argillaceous Siltstone

Bedding@50-80° to c.A.

Trace Pyrite

138.66m EDH

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

27,253



Just Aug. 20/2003

LEGEND

- 8 Carbonaceous limestone
- 7 Volcanic tuff, sericitic, light green in color
- 6 Limestone and dolomite interbedded with siltstone and mudstone
- 5 Limestone, dolomitized, silicified plus or minus Pb-Zn mineralization
- 4 Grey dolomitic siltstone, minor limestone beds
- 3 Carbonaceous siltstone
- 2 Impure limestone
- 1 Brown-grey siltstone, sandstone

- Geological contact
- Definite
 - - - Approximate
 - - - Assumed
- Fault
- ~ Definite
 - ~ Assumed
- Outcrop
- Outcrop
- Strike and dip - bedding
- 60°
- Previous Diamond Drill Hole (surface projection)
-
- 2001 Diamond Drill Hole
-

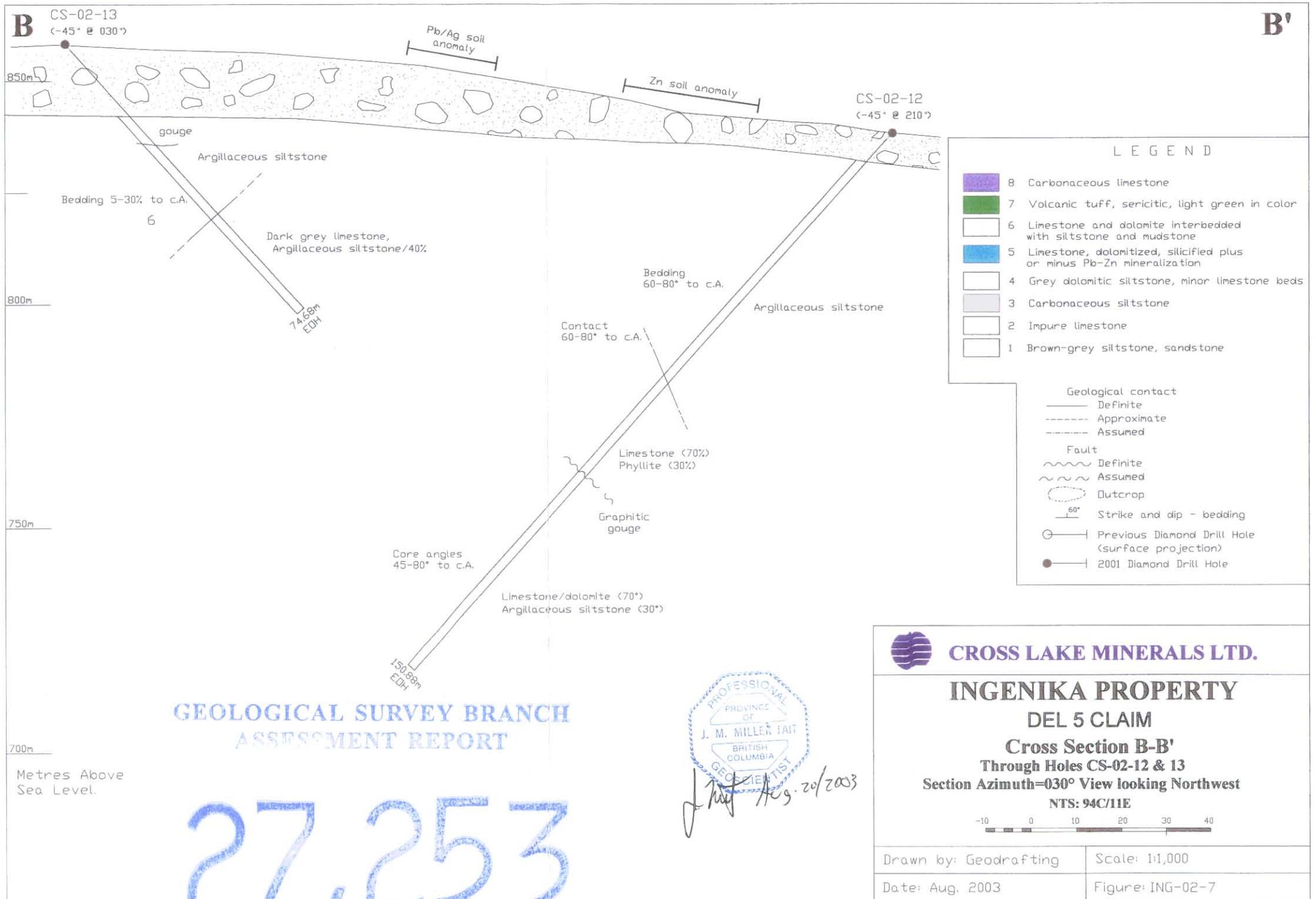


CROSS LAKE MINERALS LTD.

**INGENIKA PROPERTY
DEL 3 CLAIM
Cross Section A-A'
Through Hole CS-02-11
Section Azimuth=045° View looking Northwest
NTS: 94C/11E**



Drawn by: Geodrafting	Scale: 1:1,000
Date: Aug. 2003	Figure: ING-02-6



LEGEND

	8 Carbonaceous limestone
	7 Volcanic tuff, sericitic, light green in color
	6 Limestone and dolomite interbedded with siltstone and mudstone
	5 Limestone, dolomitized, silicified plus or minus Pb-Zn mineralization
	4 Grey dolomitic siltstone, minor limestone beds
	3 Carbonaceous siltstone
	2 Impure limestone
	1 Brown-grey siltstone, sandstone

Geological contact

- Definite
- Approximate
- Assumed

Fault

- Definite
- Assumed

Outcrop

-

60°

- Strike and dip - bedding

○ Previous Diamond Drill Hole (surface projection)

● 2001 Diamond Drill Hole

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

27,253

J. M. Milles
 Aug. 20/2003

CROSS LAKE MINERALS LTD.

INGENIKA PROPERTY

DEL 5 CLAIM

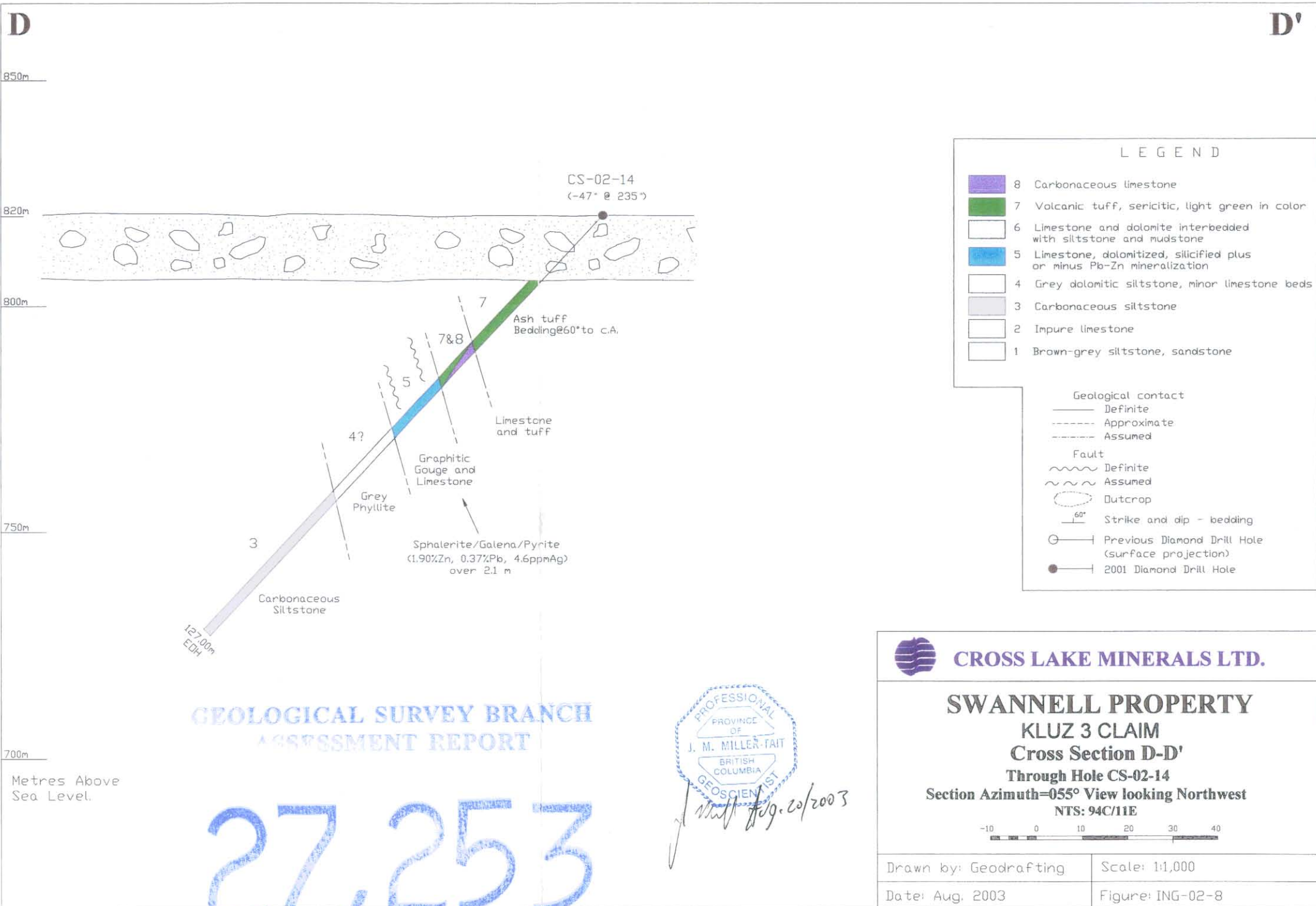
Cross Section B-B'

Through Holes CS-02-12 & 13

Section Azimuth=030° View looking Northwest

NTS: 94C/11E

Drawn by: Geodrafting	Scale: 1:1,000
Date: Aug. 2003	Figure: ING-02-7





(M)

DELKLUZ LAKE

To Lake

Swannell Forest Access Road

6080732 N
348011 E
Elev: 813 m

L0S

L1S

L2S

L3S

L4S

L5S

L6S

L7S

DEL 5 CLAIM
390517

DEL 3 CLAIM
379607

swamp

900W

B'

800W

700W

600W

500W

CS-02-12
(45°@210°)

IT-02-4

IT-02-2
150m ECH

IT-02-3

CS-02-13
(45°@030°)

B

74.7m ECH

A'

IT-02-1

CS-02-11
(45°@210°)

A

400W

300W

200W

100W

0

100E

L8S

LEGEND

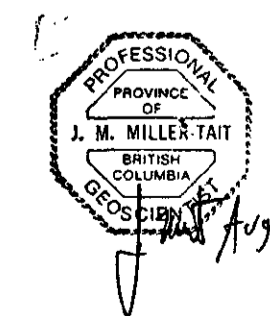
- Road
- - - Claim Boundary
- - - Drainage
- - - Clearcut Boundary
- Soil Line
- Trench
- Diamond Drill hole

CROSS LAKE MINERALS LTD.

INGENIKA PROPERTY
DEL 3 and 5 Mineral Claims
Trench and Drill Hole Location Map

NTS: 94C/11E
Omineca Mining Division

0 25 50 75 100 METRES



Drawn by: Geodrafting
Date: Aug. 2003

Scale: 1:2,500
Fig: ING 02-4

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

27.253