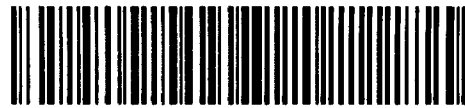


DIAMOND DRILLING



53F04NW0118 18 HERONRY LAKE

010

Area: HERONRY LAKE

Report No: 18

WORK PERFORMED FOR: RIO ALGOM EXPLORATION INC.

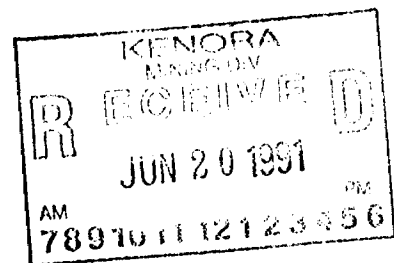
RECORDED HOLDER: SAME AS ABOVE  ]

: OTHER  ]

<u>CLAIM No.</u>	<u>HOLE No.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
K1058341 & K1058342	KL-91-01	460 M	JAN-FEB/91	(1)
K1058343 & K1106207	KL-91-02	285 M	FEB/91	(1)
K1058341	KL-91-03	231 M	FEB/91	(1)
K1058340	KL-91-05	243 M	MAR/91	(1)

NOTES: (1) #W9110.5001, FILED AUGUST/91

**RIO ALGOM EXPLORATION INC.  
REPORT OF WORK 1991  
LARAMIDE-CALNOR AND MARBANK OPTIONS  
KAKAGI LAKE AREA, ONTARIO  
N.T.S. 52F/4**



A

Kevin Kivi,  
June 14, 1991



53F04NW0118 18 HERONRY LAKE

TABLE OF (

010C

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Location, Access, and Topography	1
Property	3
1991 Exploration Program - Diamond Drilling	5

LIST OF FIGURES AND MAPS

FIGURES

Location Map	2
Claim Map	4
1991 Diamond Drilling	6

MAPS

KL-063	1991 DIAMOND DRILL PROGRAMME	POCKET
KL-037	SECTION 15+00W DDH KL-91-01	POCKET
KL-040	SECTION 18+00W DDH KL-91-02	POCKET
KL-034	SECTION 12+00W DDH KL-91-03	POCKET
KL-029	SECTION 1+00W DDH KL-91-04	POCKET
KL-033	SECTION 9+00W DDH KL-91-05	POCKET
KL-014	SECTION 4+00E DDH KL-91-06	POCKET
KL-017	SECTION 2+00E DDH KL-91-07	POCKET

LIST OF APPENDICES

Appendix A	Diamond Drill Logs
Appendix B	Assay Certificates

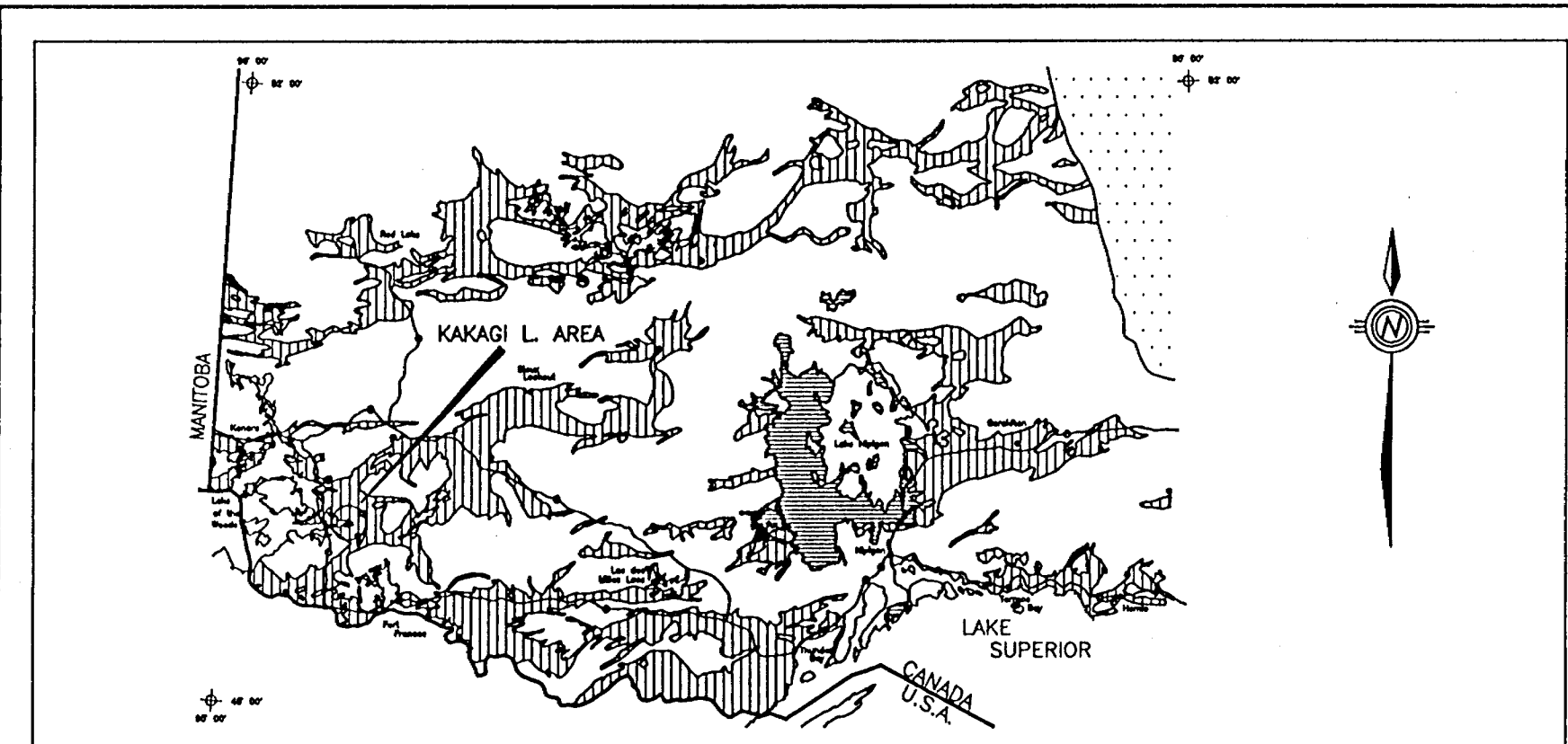
## LOCATION, ACCESS, AND TOPOGRAPHY

The Kakagi Lake project is located about 60km NW of the town of Fort Frances, Ontario. The property is located about ten kilometres northeast Nestor Falls (population 500) at the east end of Kakagi (Crow) Lake (fig. 1).





Access to the property is very good as Kakagi Lake is adjacent to Provincial Highway 71. In summer, motorboats can be rented at any of the tourism outfitters on the lake. In winter, a winter road on the lake must be ploughed and maintained to ensure that good ice conditions persist for the duration of winter projects.

The lake freezes late in the season (December 15-20) due to its depth. The deep water also results in thinner ice conditions than are found on shallower lakes in the area. Our experience shows that 12-15 inches of black ice will form on the lake with average temperatures and precipitation. Diamond drilling generally requires 20 -24 inches of ice (minimum). Ploughing of the ice road and drill sites is recommended immediately after freeze-up to ensure that poor ice conditions do not delay proposed work.





The topography is rugged Canadian Shield type with large, white pines on ridges and mixed black spruce and poplar in the flatter terrain. Cedar and alder generally dominate the swamps adjacent to creeks and between ridges.



**LEGEND**

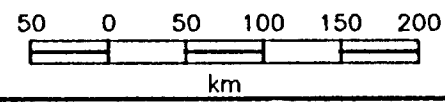
-  Paleozoic Cover
-  Diabase, gabbro, diorite and ultramafics
-  Greenstone and associated metasediments
-  Granite and Granitoid Gneiss

**SYMBOLS**

-  Geological contact
-  Political Boundary
-  Highway
-  Town

**NOTES:**

SCALE: 1:5 000 000




Rio Algom Exploration Inc.

NORTHWESTERN ONTARIO

KAKAGI LAKE AREA  
PROJECT LOCATION MAP

04/91

 **DRESI**

DWG. KL-008

## PROPERTY

The Kakagi Lake property was acquired by Rio Algom Exploration by staking and through options. Once much larger the property now stands at 85 unpatented claims and 3 patented claims (figure 2).

Optioned land includes the Laramide-Calnor Option and the Marbank Option. The claims are recorded on the Brooks Lake map (G.2670) and the Henronry Lake map (G.2621). The property is situated in the Kenora Mining Division.

A summary of the claims follows:

### Laramide-Calnor Option (3 patents, 16 claims)

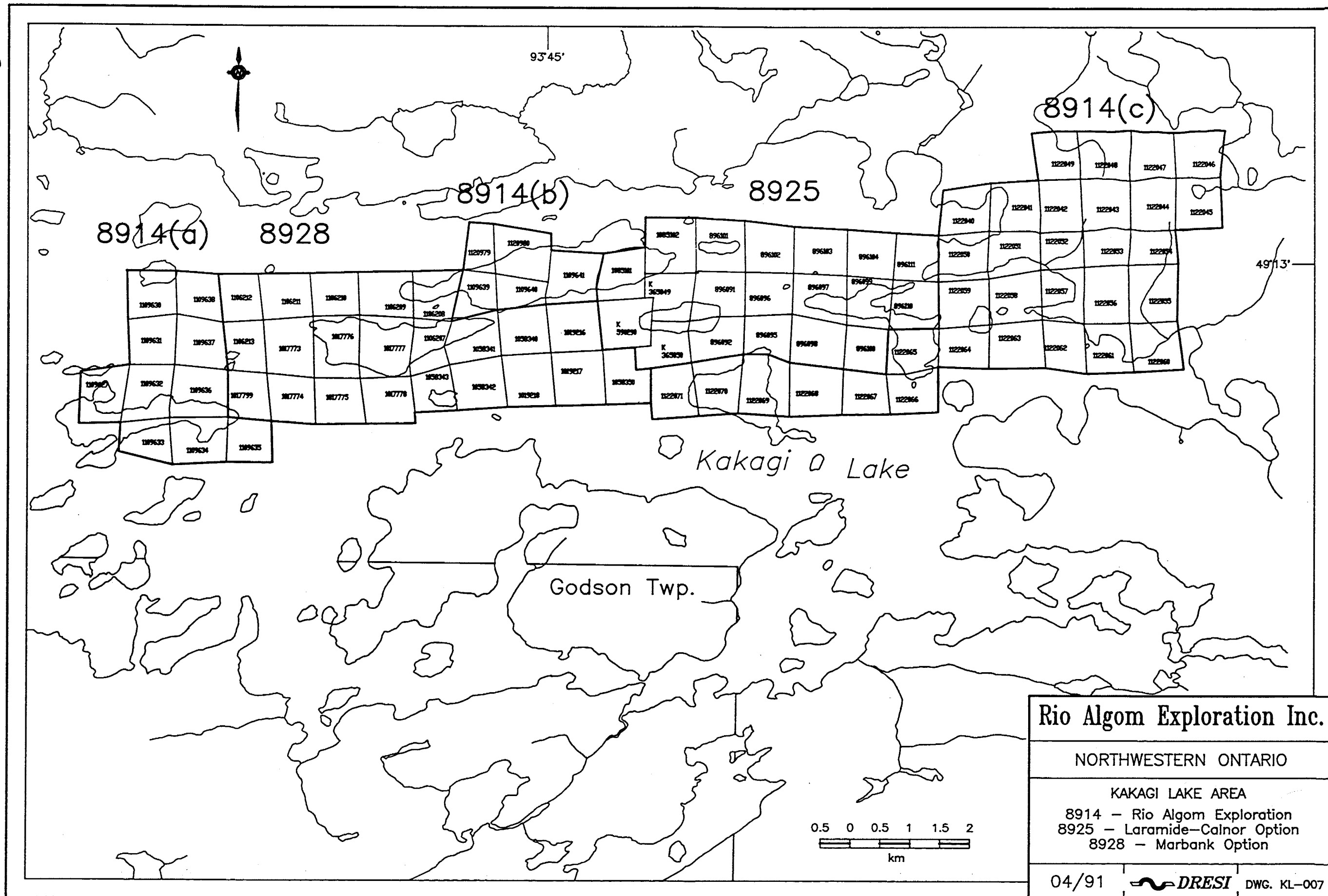
Patents:	K365049
	K365050
	K590290
Unpatented claims:	K896091-92 inclus.
	K896095-104 inclus.
	K896110-111 inclus.
	K1085101-102 inclus.

### Marbank Option (22 claims)

K1017773-778 inclus.  
K1017799  
K1019216-218 inclus.  
K1058340-343 inclus.  
K1058350  
K1106207-213 inclus.

### Rio Algom Exploration Inc. (47 claims)

K1109627  
K1109630-638 inclus.  
K1109639-641 inclus.  
K1120979-1120980 inclus.  
K1122040-071 inclus.




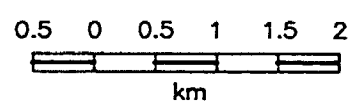
**Rio Algom Exploration Inc.**

NORTHWESTERN ONTARIO

KAKAGI LAKE AREA

8914 - Rio Algom Exploration  
 8925 - Laramide-Calnor Option  
 8928 - Marbank Option

04/91  DWG. KL-007



## 1991 EXPLORATION PROGRAM-DIAMOND DRILLING

Initial work included re-establishing a portion of the ice grid from known points on the islands. This work was conducted by the author in early January, 1991.

The next project was opening the 16 km. ice road from Hansen's Wilderness Lodge to the property. Snow ploughing was contracted to Randy Hansen of Hansen's Wilderness Lodge, Nestor Falls. Ploughing commenced immediately after a late freeze-up (January 14, 1991). The ice road was maintained until the end of the drill program.

The diamond drill program was contracted to St. Lambert Diamond Drilling Co. of Valleyfield, Quebec. Mobilization and demobilization of the equipment and the crew were from Valleyfield Quebec. The drill foreman was Germain Proulx.

The diamond drill program commenced on January 29, 1991 and ended on March 19, 1991. The 1991 program included seven holes (KL-91-01 to KL-91-07) with an accumulated length of 2282m.(fig. 3). All of the diamond drill holes were angled holes drilled from the ice. Water depths of up to 45 m. were encountered. The deep water increases the risks of the project, and in accordance, the costs.

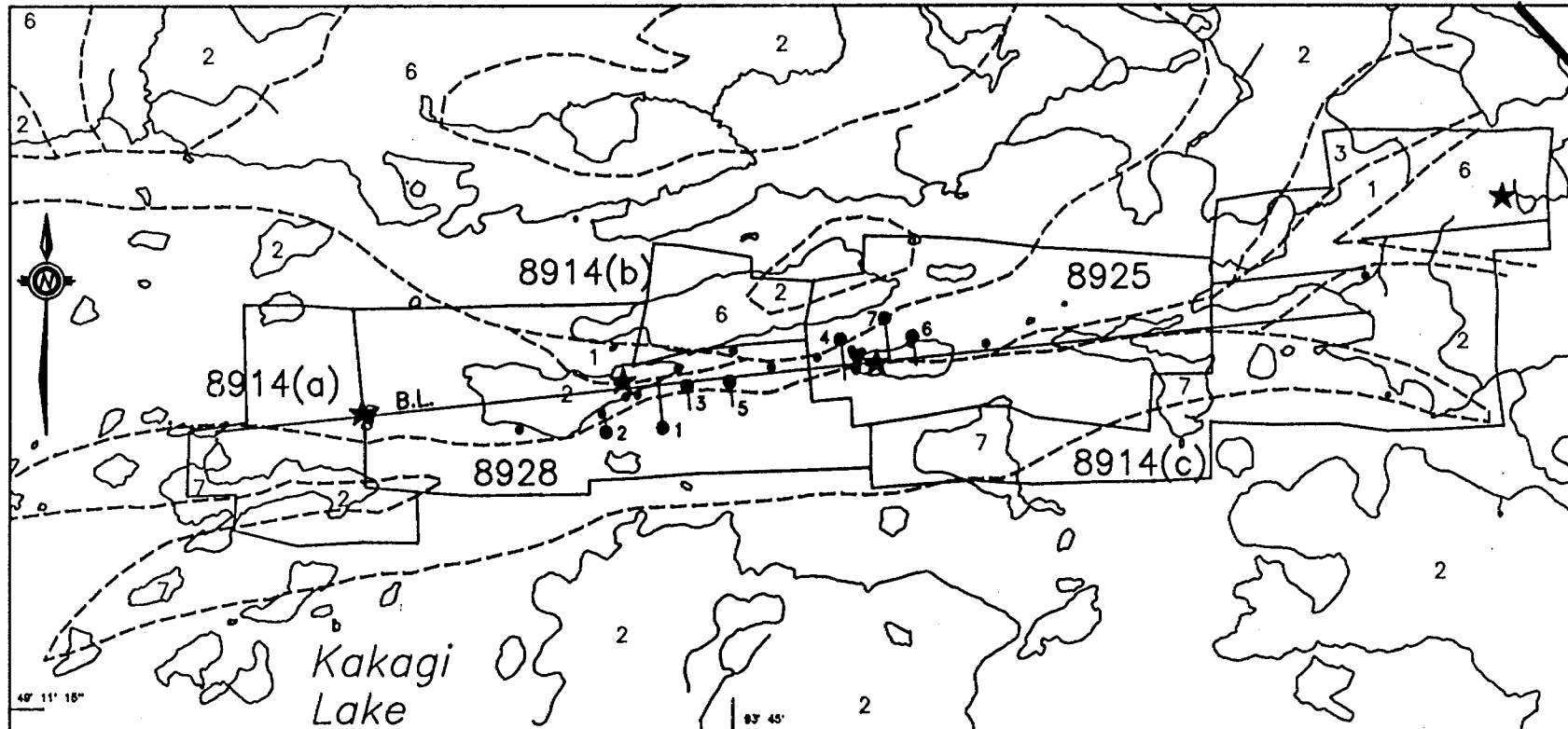
The project was supervised by the author with occasional supervision from Iain F. Downie, Regional Geologist, of Thunder Bay, and O. Bonham, Exploration Manager - Cental Canada, of Toronto.

Accommodations and a core shack was rented from Hansens Resort. The core shack was part of a large heated and insulated wood working shop at the resort. Accommodation was the rental of one of the winterized cabins. Most meals were home cooked but occasionally a restaurant meal was required.

Drill core from the program is presently cross piled at Hansen's Wilderness Lodge in Nestor Falls. The core has been donated to the Kenora Drill Core Library for permanent storage.

Generation of the computer plots of drill sections and plans was conducted by Double Rainbow Exploration Services of Thunder Bay.





**LEGEND**

- Intermediate to Felsic Intrusive Rocks
- Ultramafic Intrusive Rocks
- Felsic Metavolcanics (Pyroclastics)
- Intermediate Metavolcanics (Pyroclastics)
- Mafic Metavolcanics (Flows, tuffs)

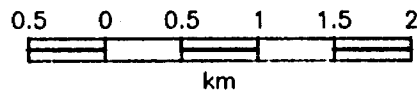
**SYMBOLS**

- Geological contact
- Fault
- Previous drilling
- Rio Algom Expl. 1991 drilling
- Gold Occurrences

**NOTES:**

NTS: 52 F 4/NE,NW

SCALE 1:50,000



Rio Algom Exploration Inc.

NORTHWESTERN ONTARIO

1991 DIAMOND DRILLING

04/91

DRESI

DWG. KL-010

# RIO ALGOM EXPLORATION INC.

LOCATION: L15W 2+90S

DIAMOND DRILL RECORD

HOLE NO. KL-91-01

AZIMUTH: 355°

PAGE 1 of 10

DIP: -50°      LENGTH: 460 m.      ELEVATION: ICE      PROPERTY: MARBANK OPTION

STARTED: Jan. 31, 91      CORE SIZE: BQ      DATE LOGGED: Feb. 2, 91      CLAIM No: K1058342, K1058341

COMPLETED: Feb 6, 91      DIP TESTS: Collar -51° 72-44° see below      SECTION: 15W

PURPOSE: GEOLOGY      LOGGED BY: KEVIN KIVI

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb			DEPTH	DIP
FROM	TO			FROM	TO						
0	12.00	CASING								15	-45°
12.00	13.35	BLOCKY - granite & diorite boulders.								72	-44°
13.35	122.70	QUARTZ DIORITE Grey, fine to medium grained quartz diorite, weakly foliated 35° C/A, slightly saussuritized feldspar locally, 0.5-1% narrow, irregular quartz-carbonate stringers, locally trace fine disseminated pyrite. 36.0-36.7 moderately silicified and chloritized. 43.45 mafic xenoliths 1cm. diameter. 56.3 1cm. diameter mafic xenolith. 58.3-59.3 silicified, sericitized, 1-2% fine pyrite, dark green chloritic streaks. 70.3-71.3 strongly silicified, 5% disseminated pyrite, 5% fine black tourmaline. 71.3-72.0 blocky, broken core 72.0-72.85 spotted with 10% chlorite clots and 3% disseminated pyrite. 72.85-78.0 FELSIC DYKE - very siliceous, light beige felsic dyke or zone of silicification - intense silicification 3% tourmaline - chlorite clots, 2-5% fine disseminated pyrite, chloritic seams, 1% irregular quartz-carbonate stringers contacts 25° and 30° C/A.								117	-43.5°
			A02051	58.3	59.30	1.0	62			201	-41°
			A02052	70.3	71.30	1.0	205			256	-40°
			A02053	72.00	72.85	.85	248			294	-38°
			A02054	72.85	73.85	1.0	149			327	-37°
			A02055	73.85	74.85	1.0	49			396	-39.5°
			A02056	74.85	75.85	1.0	77			459	-39.3°
			A02057	75.85	76.85	1.0	238				
			A02058	76.85	78.95	2.1	44				

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RIO ALGOM EXPLORATION INC.

DIAMOND DRILL RECORD

HOLE NO: KL 91-01

PAGE NO: 3 of 10

INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL FROM	TO	LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
		chloritic masses, locally has volcanic look, may be volcanic core of intrusive.	A02063	141.9	142.4	0.5	179				
		141.9-144.9 strongly silicified and bleached tan colour, 2% fine tourmaline, wispy patches of chlorite, <1% fine disseminated pyrite.	A02064	142.4	142.9	0.5	120				
		144.9-152.0 strongly silicified, grey 1-2% disseminated pyrite.	A02065	142.9	143.9	1.0	279				
		148.25 FAULT @ 25° C/A.	A02066	143.9	144.9	1.0	358				
		151.3 FAULT @ 35° C/A.									
		158.0-159.9 bleached zone (tan), strongly silicified may be healed fault at 158.2, locally mottled light green-grey look.	A02067	159.9	160.9	1.0	57				
		159.9-160.9 20 cm. white quartz vein, one bleb of chalcopyrite.									
		160.9-169.4 Dark green, chloritic, 1% pyrite, locally silicified.									
		169.4-172.1 Light grey, may be a quartz-diorite feeder dyke, contacts (if any) are vague.									
		172.1-178.5 dark grey-green, patchy chloritization <1% fine disseminated pyrite	A02068	179.4	180.4	1.0	259				
		178.5-183.4 locally red hematized zones with minor pyrite, some coarse grained sections, minor tourmaline locally.									
183.40	219.30	"CORE" QUARTZ DIORITE									
		Very diverse grey-green to light grey, fine to coarse grained quartz diorite, exhibits porphyritic phases and much quartz-carbonate fractured zones. May be volatile core of intrusive, sporadic pyrite mineralisation up to 10% locally.									
		183.9-184.9 Quartz-carbonate vein with blebs cpy.	A02069	183.9	184.9	1.0	440				
		187.9-188.9 chloritic, 7% disseminated pyrite	A02070	187.9	188.9	1.0	279				
		190.9-191.9 silicified zone, 5-7% disseminated pyrite.	A02071	190.9	191.9	1.0	137				

**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

HOLE NO: KL 91-01

PAGE NO: 4 of 10

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %	
FROM	TO			FROM	TO							
219.30	244.50	192.65-197.4 FELSIC DYKE - grey, aphanitic, massive, weakly carbonatized, 0.5% irregular white quartz carbonate fractures, locally pyritic, 0.5% fine disseminated pyrite throughout. Contacts vague 70° and 45° C/A.										
		197.4-206.4 grey, fine grained, numerous vuggy irregular quartz-carbonate zones, scattered dissemination of pyrite (up to 5%).										
		206.4-210.0 dark grey green, chloritic, minor red hematized zones with 1-2% pyrite, scattered vuggy quartz-carbonate sections.	A02072	210.0	211.0	1.0	100 <sup>12</sup>					
		210.0-211.0 silicified, slightly sheared at 55° C/A, 1-2% disseminated pyrite.	A02073	211.0	211.8	0.8	474					
		211.0-212.8 dark green, chloritic, 1-7% disseminated pyrite, locally porphyritic.	A02074	211.8	212.8	1.0	289					
		212.8-219.3 becomes medium grey, less chloritic, foliation at 48° C/A, locally porphyritic.	A02075	218.3	219.3	1.0	167					
		<b>QUARTZ DIORITE</b>										
		Light grey, fine grained very siliceous, massive homogeneous occasional clots of chlorite (up to 0.5cm), these have diffuse margins, 1% fine disseminated pyrite throughout, locally up to 10% pyrite, white random hairlike quartz-carbonate fractures, locally tourmalinized.										
		219.3 FAULT - oriented at 52° to C/A, blocky core.	A02076	221.5	222.5	1.0	97					
			A02077	228.2	229.2	1.0	50					
		221.5-222.5 locally 5% pyrite - core blocky.										
		222.5-228.8 10% chlorite clots, 1% fine disseminated pyrite, locally pyritic.	A02078	229.2	229.9	0.7	12					
			A02079	232.2	232.9	0.7	14					
		228.8-237.45 locally pyritic (as above), often vuggy, locally minor tourmaline (up to 3%), pyrite up to 10%.	A02080	232.9	233.9	1.0	9					
			A02081	233.9	234.9	1.0	10					
	A02082	263.4	237.4	1.0	19							
237.45-238.72 Andesite Tuff Xenolith, cooked, altered, epidotized, distinct fragments, up to	A02083	237.4	238.1	0.7	66							
	A02084	238.1	238.7	0.6	20							













RIO ALGOM EXPLORATION INC.  
DIAMOND DRILL RECORD

HOLE NO: KL 91-01  
PAGE NO: 10 of 10

INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
				FROM	TO						
		447.9-460.0 Pale grey green, moderately sericitized, weakly silicified, rare quartz-carbonate stringers, strong foliation 54° C/A, 1-2% fine disseminated pyrite.	A09750	446.6	447.9	1.3	32				
			A09751	447.9	449.0	1.1	21				
			A09752	449.0	450.0	1.0	102				
			A09753	450.0	451.0	1.0	35				
			A09754	451.0	452.0	1.0	64				
			A09755	452.0	453.0	1.0	58				
			A09756	453.0	454.0	1.0	29				
			A09757	454.0	455.0	1.0	48				
			A09758	455.0	456.0	1.0	45				
			A09759	456.0	457.0	1.0	39				
			A09760	457.0	458.0	1.0	30				
			A09761	458.0	459.0	1.0	120				
			A09762	459.0	459.7	0.7	64				
460.00			END OF HOLE								

*Ken Stein*

# RIO ALGOM EXPLORATION INC.

LOCATION: L18 W 2 + 80 S

DIAMOND DRILL RECORD

HOLE NO. KL 91-02

AZIMUTH: 355°

PAGE 1 OF 8

DIP: -55°      LENGTH: 285m      ELEVATION: ICE      PROPERTY: MARBANK PROPERTY

STARTED: Feb. 7, '91      CORE SIZE: BQ      DATE LOGGED: Feb 6-14, 91      CLAIM No: K1058343, K1106207

COMPLETED: Feb. 13, 91      DIP TESTS: 81 -55°, 150 -53°, 210 -52°      SECTION: \_\_\_\_\_

PURPOSE: \_\_\_\_\_      285 -51°      LOGGED BY: KEVIN KIVI

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE NO	INTERVAL FROM	INTERVAL TO	LGTH	Au ppb				
0	79.5	<b>CASING</b> 62.0-79.5 BOULDERS of granite, gabbro, felsic volcanics, diorite, sand.									
79.5	80.0	<b>MAFIC DYKE</b> Green, fine grained mafic dyke, 3 or 4 lcm. white irregular quartz carbonate stringers, sharp contact at 25° C/A.									
80.0	83.8	<b>CARBONATE-CHLORITE SCHIST</b> Strongly deformed unit, may represent a wide fault zone, Green, some creamy carbonate matrix, 5-7% tourmaline, in loosely bound clots and seams, schistosity at 15-20° C/A, 5-10% disseminated pyrite locally.	A09763 A09764 A09765 A09766	80.0 81.0 82.0 83.0	81.0 82.0 83.0 83.8	1.0 1.0 1.0 0.8	33 22 43 27				
83.8	86.0	<b>DIORITE DYKES IN ALTERED FELSIC TUFFS</b> 83.8-86.0 diorite dyke - fine grained grey green dioritic dyke, fine grained chilled margins, contacts 20° and 30° C/A.. 86.0-89.25 ALTERED FELSIC TUFF - light grey, fine grained, silicified, and weakly sericitized felsic tuff, weak tourmaline alteration, 1-2% fine disseminated pyrite, minor quartz-carbonate-tourmaline stringers. 89.25-96.8 DIORITE DYKE - Green, fine grained, dioritic mafic dyke, <1% narrow quartz-carbonate stringers, irregular. 95.1-	A09767 A09768 A09769  A09770	86.0 87.0 88.0  95.1	87.0 88.0 89.2  95.4	1.0 1.0 1.2  0.3	19 19 18  16				

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**RIO ALGOM EXPLORATION INC.**  
**DIAMOND DRILL RECORD**

HOLE NO: KL 91-02

PAGE NO: 2 of 8

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %	
				FROM	TO							
86.0	115.7	95.4 tourmaline quartz vein, large pyrite blebs, contact 40° C/A.	A09771	96.8	97.6	0.8	16					
		96.8-97.65 ALTERED FELSIC TUFF - light grey, silicified, weakly sericitized, increased tourmaline alteration up to 10%.										
		97.65-98.6 DIORITE DYKE - fine grained, green, contacts sharp at 40° C/A.										
		ALTERED FELSIC VOLCANICS, QUARTZ-TOURMALINE BRECCIA, MAFIC DYKES										
		Grey, fine grained, silicified felsic volcanics, weakly sericitized and 1-2% tourmaline. Several quartz-tourmaline-felsic volcanic breccia veins. Fine grained mafic dykes, green.										
		98.6-100.4 BRECCIA VEIN - black, quartz-tourmaline matrix, 50% white angular quartz fragments 2-6cm. in diameter, 30% angular felsic metavolcanics with 1% pyrite, core badly broken 99-100m..	A09772	98.6	99.4	0.8	11					
			A09773	99.4	100.4	1.0	12					
		100.4-103.1 ALTERED FELSIC TUFF - grey, fine grained, 5% fine tourmaline (fine grained) 1% fine disseminated pyrite.	A09774	100.4	101.4	1.0	40					
			A09775	101.4	102.4	1.0	25					
		103.1-103.4 MAFIC DYKE - fine grained, green, dioritic, 045° C/A contacts.	A09776	102.4	103.1	0.7	24					
			A09777	103.1	103.4	0.3	6					
		103.4-105.1 BRECCIA VEIN - black quartz-tourmaline vein, 60% white fragments of quartz and felsic volcanics, 1% fine pyrite.	A09778	103.4	104.3	0.9	18					
			A09779	104.3	105.1	0.8	22					
		105.1-105.5 MAFIC DYKE - green, fine grained, dioritic, contact at 39° C/A..	A09780	105.1	105.5	0.4	6					
		105.5-115.7 BRECCIA VEIN - black and white quartz-tourmaline breccia vein, 50% white quartz, 50% silicified altered felsic volcanics, black quartz-tourmaline matrix, 2-3% disseminated pyrite.	A09781	105.5	106.5	1.0	42					
	A09782	106.5	107.5	1.0	17							
	A09783	107.5	108.5	1.0	10							
	A09784	108.5	109.5	1.0	22							
	A09785	109.5	110.5	1.0	21							

**RIO ALGOM EXPLORATION INC.**  
**DIAMOND DRILL RECORD**

HOLE NO: KL 91-02

PAGE NO: 3 of 8

INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %	
				FROM	TO							
115.7	160.6	<p>ALTERED QUARTZ DIORITE Pale grey green, fine grained matrix, large bleached fragments not well pronounced, rock is pervasively silicified, locally sericitized, &lt;1% narrow, irregular quartz-carbonate stringers, locally 1-2% fine disseminated pyrite.</p>	A09786	110.5	111.5	1.0	15					
			A09787	111.5	112.5	1.0	17					
			A09788	112.5	113.5	1.0	18					
			A09789	113.5	114.5	1.0	16					
			A09790	114.5	115.7	1.2	25					
				<p>115.7-117.7 bleached, silicified and sericitic, yellowish cast, 2% pyrite-minor quartz-tourmaline veining.</p>	A09791	115.7	116.7	1.0	10			
					A09792	116.7	117.7	1.0	19			
				<p>117.7-121.5 large fragments; some coarse mafic sections with 2% pyrite, silicified matrix locally minor tourmaline.</p>	A09793	119.5	120.5	1.0	16			
				<p>121.5-128.7 homogeneous, fine grained, massive, may be quartz diorite, strongly sheared at 125.3 at 38° C/A, silicified, minor pyrite, narrow 40cm. zone</p>	A09794	124.0	125.0	1.0	14			
					A09795	125.0	126.0	1.0	28			
					A09796	126.0	127.0	1.0	32			
					A09797	127.0	128.0	1.0	11			
					A09798	128.0	128.7	0.7	30			
				<p>128.7-136.9 Fine to coarse grained, moderately carbonatized, tourmaline is associated with these sections, 5% tourmaline locally, some black tourmaline seams, rare irregular white quartz-carbonate stringers.</p>	A09799	128.7	130.0	1.3	116			
					A09800	130.0	131.0	1.0	20			
					A09151	131.0	132.0	1.0	86			
					A09152	132.0	133.0	1.0	18			
					A09153	133.0	134.0	1.0	34			
					A09154	134.0	135.0	1.0	116			
					A09155	135.0	136.0	1.0	96			
		<p>136.9-138.1 TOURMALINE-QUARTZ BRECCIA VEIN - black matrix, white angular broken quartz, minor pyrite, contacts 34° C/A..</p>	A09156	136.0	136.9	0.9	14					
			A09157	136.9	138.1	1.2	11					

**RIO ALGOM EXPLORATION INC.**  
**DIAMOND DRILL RECORD**

HOLE NO: KL 91-02

PAGE NO: 4 of 8

INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %	
				FROM	TO							
160.6	181.5	138.1-141.0 light to dark grey, 2-3% disseminated pyrite, locally tourmaline altered.	A09158	138.1	140.0	1.9	12					
			A09159	140.0	141.0	1.0	10					
		138-139.5 Core badly broken, 30cm. core lost.	P09160	141.0	142.0	1.0	54					
		141.0-148.2 Dark grey green, variably silicified, chloritic locally, 1-2% disseminated pyrite, mottled beige-green look, locally core broken, 0.5% irregular quartz-carbonate stringers. Locally unit has look of Felsic Pyroclastic, foliation 40° C/A.	P09161	142.0	143.0	1.0	40					
			P09162	143.0	144.0	1.0	94					
			P09163	144.0	145.0	1.0	129					
			P09164	145.0	146.0	1.0	38					
			P09165	146.0	147.0	1.0	22					
			P09166	147.0	148.2	1.2	45					
			P09167	148.2	149.0	0.8	92					
		148.2-152.8 ALTERED QUARTZ DIORITE & FAULT ZONE grey, silicified and weakly carbonated 2% pyrite, Fault at 30° C/A. 150.0-151.8 core badly broken, 35cm. grind.	P09168	149.0	150.0	1.0	88					
			P09169	150.0	151.8	1.8	47					
		152.8-158.4 Grey, moderately silicified and chloritized quartz diorite, rare randomly oriented quartz carbonate stringers, 3% disseminated pyrite. Core broken at 153.3, 157.7.	P09170	151.8	152.8	1.0	46					
			P09171	152.8	154.0	1.2	93					
			P09172	154.0	155.0	1.0	146					
			P09173	155.0	156.0	1.0	142					
			P09174	156.0	157.0	1.0	63					
			P09175	157.0	158.4	1.4	33					
			P09201	158.4	159.1	0.7	44					
		158.4-159.1 Narrow wedge of chloritic felsic tuff, 3% pyrite, silicified.	P09202	159.1	159.8	0.7	54					
		159.1-160.6 QUARTZ DIORITE DYKE - light grey, fine grained, 2% fine grained pyrite, contacts 36° and 30° C/A.	P09203	159.8	160.6	0.8	44					
		CHLORITIC FELSIC LAPILLI TUFF Pale green, bluish green felsic lapilli, moderately sericitized, 1-2% pyrite disseminated locally, locally minor black tourmaline in seams. Occasional quartz diorite dykes intrude this unit.										
		160.6-161.4 20cm. quartz-tourmaline vein, core broken, up to 10% pyrite locally.	P09204	160.6	161.4	0.8	43					
		161.4-162.4 fine grained, silicified, minor quartz carbonate stringers.	P09205	161.4	162.4	1.0	18					
		162.4-169.8 pale green, fairly chloritic, 1%	P09206	162.4	163.4	1.0	19					

**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

HOLE NO: KL 91-02

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INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
		fine disseminated pyrite, minor tourmaline, irregular quartz carbonate blebs.	P09207	163.4	164.4	1.0	43				
			P09208	164.4	165.4	1.0	16				
			P09209	165.4	166.4	1.0	23				
			P09210	166.4	167.4	1.0	45				
			P09211	167.4	168.4	1.0	30				
			P09212	168.4	169.8	1.4	24				
		169.8-172.7 QUARTZ DIORITE DYKE - Grey, fine grained, 1% fine disseminated pyrite, contacts at 32° C/A; minor tourmaline near lower contact.	P09213	169.8	170.8	1.0	9				
			P09214	170.8	171.8	1.0	27				
			P09215	171.8	172.7	0.9	24				
		172.7-175.3 Chloritic, lapilli tuff, 1% disseminated pyrite, locally strongly pyritized, dark grey brecciated quartz veins.	P09216	172.7	173.7	1.0	55				
			P90217	173.7	174.7	1.0	22				
		175.3-177.2 chloritic, 1% disseminated pyrite, rare grey brecciated quartz veins 1-2cm. wide.	P09218	174.7	175.3	0.6	45				
			P09219	175.3	176.3	1.0	37				
			P09220	176.3	177.2	0.9	35				
			P09221	177.2	178.2	1.0	163				
		177.2-178.2 Strongly sheared, 20% quartz carbonate stringers, schistosity 25° C/A.	P09222	178.2	179.1	0.9	136				
		178.2-179.9 QUARTZ DIORITE DYKE - Light grey, medium grained, 0.5% disseminated pyrite, 28° C/A contacts.	P09223	179.1	179.9	0.8	147				
			P09224	179.9	180.9	1.0	43				
		179.9-181.5 Strongly sheared chloritic felsic tuff, 20% quartz-carbonate veining.	P09225	180.9	181.5	0.6	39				
181.5	236.0	<b>SOLUTION BRECCIA</b> Very unique unit, angular brecciated blocks mm scale to 0.5m in size cemented with dark grey green tourmaline-chlorite-quartz matrix, many fragments (quartz diorite and chloritic felsic lapilli tuff) are bleached around rims; trace pyrite to 3% at bottom of unit.									
		181.5-184.5 spotted with 20% 2mm amphiboles, white aphanitic sericitized matrix.	P09226	181.5	183.0	1.5	37				
			P09227	183.0	184.5	1.5	14				
		184.5-196.5 80% fragments, mostly <3cm white quartz fragments, larger fragments predominantly quartz diorite although larger	P09228	184.5	186.0	1.5	14				
			P09229	186.0	187.5	1.5	8				
			P09230	187.5	189.0	1.5	28				



RIO ALGOM EXPLORATION INC.

DIAMOND DRILL RECORD

HOLE NO: KL 91-02

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INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
		fragments show good chloritic lapilli tuff.	P09231	189.0	190.5	1.5	26				
			P09232	190.5	192.0	1.5	17				
			909233	192.0	193.5	1.5	12				
			P09234	193.5	195.0	1.5	32				
			P09235	195.0	196.5	1.5	21				
			P09236	196.5	198.0	1.5	20				
		196.5-201.0 Blacker matrix, more tourmaline, increased silicification, 3% disseminated pyrite, large fragments more thoroughly altered.	P09237	198.0	199.5	1.5	26				
			P09238	199.5	201.0	1.5	20				
		201.0-204.5 Altered felsic lapilli tuff, 20% larger (4mm) amphiboles, 1% disseminated pyrite, strong schistosity 35° C/A.	P09239	201.0	201.5	0.5	26				
			P09240	201.5	202.5	1.0	21				
			P09241	202.5	203.5	1.0	17				
			P09242	203.5	204.5	1.0	25				
		204.5-213.0 Grey black matrix, high tourmaline content, very hard, matrix & fragments. Several "tourmaline porphyry" fragments with 10-30% 1mm tourmaline phenocrysts 207.5-50cm. xenolith of felsic lapilli tuff, foliation 48° C/A, 65° contact at xenolith margin.	P09243	204.5	205.5	1.0	15				
			P09244	205.5	207.0	1.5	41				
			P09245	207.0	208.5	1.5	82				
			P09246	208.5	210.0	1.5	91				
			P09247	210.0	211.5	1.5	142				
			P09248	211.5	213.0	1.5	22				
			P09249	213.0	214.5	1.5	46				
		213.0-219.0 Grey-black matrix, increased silicification, scattered blebs of pyrite, 1-5% pyrite, core badly broken locally.	P09250	214.5	216.0	1.5	43				
			P09501	216.0	217.5	1.5	77				
			P09502	217.5	219.0	1.5	31				
			P09503	219.0	220.5	1.5	79				
			P09504	220.5	222.0	1.5	62				
		219.0-222.0 blocky, 40-50% fragments, which are small and almost pure quartz, somewhat vuggy, 5% pyrite.	P09505	222.0	223.5	1.5	640				
		222.0-236.0 Strongly silicified solution breccia, black tourmaline rich matrix, 5-10% disseminated pyrite, rare white barren quartz veins (two-18cm. and 4cm.). Slightly sericitic at last 2m of section.	P09506	223.5	225.0	1.5	279				
			P09507	225.0	226.5	1.5	350				
			P09508	226.5	228.0	1.5	113				
			P09509	228.0	229.5	1.5	60				
			P09510	229.5	231.0	1.5	113				
			P09511	231.0	232.5	1.5	15				
			P09512	232.5	233.3	0.8	18				
			P09513	233.3	234.4	1.1	80				
			P09514	234.4	235.2	0.8	155				

**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

HOLE NO: KL 91-02

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INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
236.0	244.4	<p><b>QUARTZ DIORITE INTRUSIVE</b> Light grey, locally silicified and tourmalinized, fine grained, siliceous, foliation 45° C/A, contacts 54° C/A and 37° C./A, 1-5% pyrite, lower contact best 237.7-238.7 20% quartz tourmaline veining, 5% disseminated pyrite, strong foliation and vein contacts at 28° C/A. 238.7-243.00 silicified, 1-2% pyrite, sparse tourmaline disseminated, quartz vein, pyrite at 242.8m.</p>	P09515	235.2	236.0	0.8	145				
			P09516	236.0	237.0	1.0	186				
			P09517	237.0	237.7	0.7	150				
			P09518	237.7	238.7	1.0	94				
			P09519	238.7	240.0	1.3	38				
			P09520	240.0	241.5	1.5	30				
			P09521	241.5	243.0	1.5	23				
			P09522	243.0	244.4	1.4	48				
244.4	285.0	<p><b>ANDESITIC TUFFS</b> Grey green, andesitic tuff, green rounded chloritic clasts, minor pyrite (&lt;1% generally) locally up to 5%, minor epidote alteration, rock has very low amount of alteration, foliation 50° C/A. 244.4-249.0 2-5% disseminated pyrite, weakly carbonatized.  253.5-258.0 1-2% pyrite scattered, weakly carbonatized 257.2 0.5cm. seam of pyrite with minor chalcopyrite. 264.0-265.5 1-2% disseminated pyrite. 270.0-271.5 slightly silicified, 3% pyrite. 274.7-275.7 2-3% pyrite. 279.0-282.0 slightly silicified, 1% fine pyrite, minor quartz carbonate stringers. 284.0-285.0 slightly sheared, 45° C/A, slightly silicified and carbonatized, 3-5% pyrite, 2 or 3 dark grey brecciated quartz</p>	P09523	244.4	246.0	1.6	40				
			P09524	246.0	247.5	1.5	44				
			P09525	247.5	249.0	1.5	136				
			P09526	253.5	255.0	1.5	173				
			P09527	255.0	256.5	1.5	139				
			P09528	256.5	258.0	1.5	374				
			P09529	264.0	265.5	1.5	91				
			P09530	270.0	271.5	1.5	31				
			P09531	274.7	275.7	1.0	214				
			P09532	279.0	280.5	1.5	60				
			P09533	280.5	282.0	1.5	46				
			P09534	284.0	285.0	1.0	146				

RIO ALGOM EXPLORATION INC.  
DIAMOND DRILL RECORD

HOLE NO: KL 91-02

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INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
285.0		stringers.  END OF HOLE									

*Ken C...*

# RIO ALGOM EXPLORATION INC.

LOCATION: L12W 0+30S

DIAMOND DRILL RECORD

HOLE NO. KL 91-03

AZIMUTH: 175°

PAGE 1 of 7

DIP: -60° LENGTH: 231 m ELEVATION: \_\_\_\_\_ PROPERTY: MARBANK

STARTED: Feb. 14, '91 CORE SIZE: BQ DATE LOGGED: Feb. 18, 1991 CLAIM No: K 105834

COMPLETED: Feb. 20, 91 DIP TESTS: 66 -61°, 96 -57°, 144 -55° SECTION: L 12W

PURPOSE: Extend Geology of B-83-11 to south. 231 -56° LOGGED BY: KEVIN KIVI

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb				
FROM	TO			FROM	TO						
0	66.0	CASING									
66.0	84.0	<p><b>FELSIC LAPILLI TUFF</b>                      Creamy beige coloured felsic lapilli tuff, moderately sericitized, locally grey coloured, from chlorite content, strong schistosity of 35° C/A, increased silicification down hole, 1-2% fine disseminated pyrite.                      65.0-66.0 slightly blocky.                      66.0-69.0 occasional 0.5-1cm. white quartz stringers, crenulated and folded, 2% fine disseminated pyrite, scattered through section.                      69.0-73.0 yellow, highly sericite altered, strongly silicified, 1% pyrite.                      73.0-81.0 grey cast from fine chlorite content (primary?) sericitic seams accent schistosity of 36° C/A.                      81.0-84.0 70cm core lost to grind, locally strongly silicified.</p>	P09535 P09536 P09537 P09538 P09539 P09540 P09541 P09542 P09543 P09544 P09545 P09546	65.0 66.0 67.5 69.0 70.5 72.0 73.5 75.0 76.5 78.0 79.5 81.0 84.0	66.0 67.5 69.0 70.5 72.0 73.5 75.0 76.5 78.0 79.5 81.0 84.0	1.0 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 3.0	63 74 77 52 52 32 100 232 70 44 35 52				
84.0	94.5	<p><b>SILICIFIED FELSIC LAPILLI TUFF</b>                      Light beige, intensely silicified, quartz flooded felsic lapilli tuff, moderately</p>	P09547 P09548	84.0 85.5	85.5 87.0	1.5 1.5	47 234				

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**RIO ALGOM EXPLORATION INC.**  
**DIAMOND DRILL RECORD**

HOLE NO: KL 91-03

PAGE NO: 2 of 7

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
94.5	99.0	silicified, locally grey cast due to fine chlorite; 1% fine disseminated pyrite, locally 5%, rare specks of fuchsite, rare tourmaline.  92.0-94.5 0.5cm. wispy pyritic seams.  INTENSELY SILICIFIED FELSIC LAPILLI TUFFS WITH QUARTZ VEINING Yellowish green, intensely silicified, sericitic altered felsic tuffs, 1% pyrite, 3-5% white quartz carbonate veins up to 20cm wide, variably oriented veins but generally 40-68° C/A, x-cutting schistosity (36° C/A), most veins parallel schistosity, quartz veins mineralised with <1% pyrite, trace tourmaline.	P09549	87.0	88.5	1.5	157				
			P09550	88.5	90.0	1.5	418				
			P09551	90.0	91.5	1.5	50				
			P09552	91.5	93.0	1.5	79				
99.0	102.0	SILICIFIED FELSIC LAPILLI TUFFS Creamy beige, strongly silicified and quartz flooded felsic lapilli tuffs, 1-3% fine disseminated pyrite, minor quartz veining, schistosity 32° C/A.	P09554	94.5	96.0	1.5	63				
			P09555	96.0	97.5	1.5	62				
			P09556	97.5	99.0	1.5	48				
102.0	119.8	ALTERED CHLORITIC FELSIC LAPILLI TUFF Greenish beige to grey-green, strongly silicified chloritic felsic lapilli tuff, some textures seen in an altered unit show through alteration, rock has vague phenocrysts of carbonate that give it a "porphyritic" look that distinguishes it from previous unit, 1-5% disseminated pyrite. 102.0-105.4 greenish beige, strongly silicified, 1% pyrite, foliation 36° C/A. 105.4-108.0 dark green, higher chlorite content, reduced silicification 1-2% disseminated pyrite, grey hairlike sericitic	P09557	99.0	100.5	1.5	547				
			P09558	100.5	102.0	1.5	28				
			P09559	102.0	103.5	1.5	39				
			P09560	103.5	104.4	0.9	28				
			P09561	104.4	105.4	1.0	28				
			P09562	105.4	106.5	1.1	119				
			P09563	106.5	108.0	1.5	43				



RIO ALGOM EXPLORATION INC.  
DIAMOND DRILL RECORD

HOLE NO: KL 91-03

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INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %	
				FROM	TO							
155.4	180.9	locally sheared with carbonate, silica and pyrite alteration <1% irregular wispy quartz carbonate stringers locally 1-3% pyrite. 135.6-141.3 rare quartz veins, minor pyrite locally. 141.3-142.7 Shear zone, schistosity 50° C/A pyritic bands up to 8cm wide with 25% pyrite, quartz-carbonate matrix. 142.7-145.7 dark green, chloritic. 145.7- FAULT - core broken, minor quartz veining fault at 31° C/A. 145.7-147.7 moderately carbonatized, 1-2% pyrite, sheared at 147.3 (54° C/A), silicified, carbonatized, 5% pyrite. 147.7-153.4 scattered sparse pyrite, 20cm. quartz diorite dyke at 151.3 contacts 49° C/A. 153.4-154.6 locally silicified and carbonate altered. 154.6-155.4 core badly broken, vuggy, some grind.	P09576	141.3	142.7	1.4	100					
		P09577	145.7	146.7	1.0	134						
		P09578	146.7	147.7	1.0	62						
		P09579	153.4	154.4	1.0	188						
		P09580	154.4	155.4	1.0	251						
		ALTERED QUARTZ DIORITE Strongly altered and broken quartz diorite, sericite and chalky alteration, locally minor tourmaline, 2% disseminated pyrite. Locally core badly broken and ground up. Locally sheared at 47° C/A. 155.4-157.0 vuggy and broken, tourmalinized, up to 5% pyrite. 157.0-160.0 pale grey, 3% pyrite, core badly broken	P09581	155.4	157.0	1.6	34					
		P09582	157.0	158.0	1.0	22						
		P09583	158.0	159.0	1.0	15						
		P09584	159.0	160.0	1.0	16						
		P09585	160.0	162.0	2.0	14						
		160.0-152.0 60% broken to small crumbs, sericitic, 1-2% pyrite. 162.0-163.5 Sheared, 35° C/A, grey tourmaline and chlorite seams, 5% pyrite. 163.5-174.3 pyritized, 3-7% disseminated	P09586	162.0	163.5	1.5	19					
		P09587	163.5	165.0	1.5	20						





**RIO ALGOM EXPLORATION INC.**  
**DIAMOND DRILL RECORD**

HOLE NO: KL 91-03

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INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
		grey, angular quartz diorite fragments, 1% fine disseminated pyrite, matrix dark grey, probably chlorite-tourmaline with 2% disseminated pyrite, schistosity at 34° C/A. 188.6-189.6 1m badly ground core, 40cm lost. 189.6-195.0 70% fragments, 30% dark grey chlorite-tourmaline matrix, 2-5% disseminated pyrite.	P09606	188.6	189.6	1.0	23				
			P09607	189.6	190.5	0.9	20				
			P09608	190.5	192.0	1.5	20				
			P09609	192.0	193.5	1.5	18				
			P09610	193.5	195.0	1.5	20				
			P09611	195.0	196.5	1.5	37				
		195.0-196.5 narrow bands, up to 15% coarse (3mm) pyrite, porous looking.	P09612	196.5	198.0	1.5	13				
		196.5-206.3 85-90% fragments, strongly sheared (34° C/A),. 3-7% fine disseminated pyrite.	P09613	198.0	199.5	1.5	11				
			P09614	199.5	201.0	1.5	187				
			P09615	201.0	202.5	1.5	13				
			P09616	202.5	204.0	1.5	23				
			P09617	204.0	205.3	1.5	27				
			P09618	205.5	206.3	0.8	17				
206.3	218.8	<b>ALTERED, LOCALLY BRECCIATED QUARTZ DIORITE</b> Light grey, moderately foliated, schistosity 38° C/A, locally dark grey and very vuggy 2-5% disseminated pyrite, locally brecciated with stretched angular light grey quartz diorite fragments with dark grey vuggy.									
		206.3-213.0 dark grey, vuggy, strongly altered with likely tourmaline and chlorite, 5% fine disseminated pyrite, locally minor quartz veining, sericitic.	P09619	206.3	207.0	0.7	24				
			P09620	207.0	208.5	1.5	15				
			P09621	208.5	210.0	1.5	19				
			P09622	210.0	211.5	1.5	18				
		213.0-218.8 brecciated portion, light grey, 95% fragments, dark grey vuggy matrix, core locally badly broken, no grind.	P09623	211.5	213.0	1.5	81				
			P09624	213.0	214.5	1.5	14				
			P09625	214.5	216.0	1.5	16				
			P09626	216.0	217.5	1.5	14				
			P09627	217.5	218.8	1.3	11				

**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

HOLE NO: KL 91-03  
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INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
218.8	221.6	SILICIFIED QUARTZ DIORITE Sheared, silicified quartz diorite, 1-3mm pyritic bands, sericitized, locally vuggy, 3- 7% disseminated pyrite, schistosity at 34° C/A.	P09628	218.8	220.2	1.4	12				
			P09629	220.2	221.6	1.4	27				
221.6	231.0	ALTERED QUARTZ DIORITE Light grey, porous, sericite altered, slightly sheared at 40° C/A, 5-8% disseminated pyrite, minor quartz veining. 226.9-229.3 QUARTZ DIORITE DYKE - light grey, fine grained 5% pyrite, slightly sericitized.	P09630	221.6	223.0	1.4	30				
			P09631	223.0	224.7	1.7	20				
			P09632	224.7	225.8	1.1	24				
			P09633	225.8	226.9	1.1	17				
			P09634	226.9	228.0	1.1	14				
			P09635	228.0	229.3	1.3	12				
			P09636	229.3	230.1	0.8	21				
			P09637	230.1	231.0	0.9	29				
	231.0	END OF HOLE									

*Ken King*

# RIO ALGOM EXPLORATION INC.

LOCATION: L 9W 0+20S

DIAMOND DRILL RECORD

HOLE NO. KL 91-05

AZIMUTH: 175°

PAGE 1 OF 6

DIP: \_\_\_\_\_ LENGTH: 243m ELEVATION: ICE PROPERTY: MARBANK OPTION 8928

STARTED: March 1, 1991 CORE SIZE: BO DATE LOGGED: March 7, 1991 CLAIM No: K1058340

COMPLETED: March 6, 1991 DIP TESTS: 117 -58°, 186 -57°, 243 -56° SECTION: \_\_\_\_\_

PURPOSE: GEOLOGY LOGGED BY: K. Kivi

INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL FROM	TO	LGTH				
0	114.0	CASING								
114.0	132.0	ALTERED FELSIC LAPILLI TUFF Light grey, silicified and ankerite altered felsic lapilli tuff, dark grey zones mineralized with fine tourmaline, 2-5% fine disseminated pyrite, 70-80% stretched lapilli, locally pyritic seams 2-3mm wide, schistosity at 35° to C/A, sericitized. 114.0-115.5 5% black tourmalinized zones, 5% pyrite sericitic, schistosity at 34° to C/A. 115.5-121.6 moderately ankerite altered, locally vuggy, less tourmaline mineralization than above.  121.6-123.7 QUARTZ DIORITE DYKE - light grey, medium grained, moderately sheared at 37° to C/A, 2% fine pyrite, contacts at 30° and 38° to C/A. 123.7-125.2 ankerite altered and sheared, 3cm. pyritic band, 124.8-125.5. QUARTZ DIORITE DYKE, contacts at 38° to C/A. 125.2-132.0 Strongly sheared (36° to C/A), 1% tourmalized, 2-3% pyrite, strong ankerite and sericite alteration, silicified, last 2m of section may be sheared, altered quartz diorite.								
			P09926	114.0	115.5	1.5	22			
			P09927	115.5	117.0	1.5	23			
			P09928	117.0	118.5	1.5	18			
			P09929	118.5	120.0	1.5	25			
			P09930	120.0	121.6	1.6	27			
			P09931	121.6	122.8	1.2	51			
			P09932	122.8	123.7	0.9	30			
			P09933	123.7	125.2	1.5	99			
			P09934	125.2	126.2	1.0	55			
			P09935	126.2	127.5	1.3	68			
			P09936	127.5	129.0	1.5	38			
			P09937	129.0	130.5	1.5	82			
			P09938	130.5	132.0	1.5	23			

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**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

HOLE NO: KL 91-05

PAGE NO: 2 of 6

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
132.0	138.1	<p><b>FELSIC DYKES</b> Grey, felsic dykes, likely quartz diorite, fine grained, medium grey, massive, 1-2% fine disseminated pyrite, contacts are vague and irregular. Host rock is sheared, altered quartz diorite.</p> <p>132.0-132.85 Sheared, altered quartz diorite, silicified, vuggy 3% fine pyrite.</p> <p>132.85-136.6 <b>FELSIC DYKE</b> - grey, fine grained, massive, 3-5% fine pyrite, 1% white irregular quartz stringers, irregular contacts.</p> <p>136.6-137.4 Silicified, hydrofractured quartz diorite, 2% very fine disseminated pyrite, minor tourmaline.</p> <p>137.4-138.1 <b>FELSIC DYKE</b> - medium grey, fine grained, vague contacts at 58° to C/A.</p>	P09939	132.0	132.8	0.8	62				
			P09940	136.6	137.4	0.8	30				
			P09941	137.4	138.9	1.5	72				
138.1	155.7	<p><b>QUARTZ DIORITE</b> Light grey to medium grey, fine grained, 1-2% fine pyrite, locally silicified, sericitic quartz rich sealed fractures abundant locally, rock has undergone stresses that have almost brecciated unit.</p> <p>138.0-145.5 medium grey, silicified, 2% fine pyrite, locally vuggy.</p> <p>145.5-147.0 fractured.</p> <p>147.0-150.0 light grey, higher feldspar content, 147.6 <b>FAULT</b> @ 44° to C/A.</p> <p>150.0-151.1 Shear/fault zone at 51° to C/A, chalky, 30cm. green mafic dyke intrudes centre portion, contacts at 45° to C/A.</p> <p>151.1-154.4 fractured, sheared (58° to C/A), chalky, strongly sericitized, porous look.</p> <p>154.4-155.7 Badly broken, chalky, sericite altered, some mafic dyke material.</p>	P09942	144.0	145.5	1.5	43				
			P09943	145.5	147.0	1.5	100				

**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

HOLE NO: KL 91-05

PAGE NO: 3 of 6

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
155.7	162.9	<p><b>FAULT/BRECCIA ZONE</b> Dark and light grey, sericitized and badly broken fault/breccia material. Some altered mafic dyke material. Some darker crumbs resemble quartz-tourmaline solution breccia with white altered diorite breccia clasts in black quartz tourmaline matrix.</p> <p>155.7-159.2 Core badly broken, 2-5% pyrite, 60% of section is quartz tourmaline solution breccia, rest is fault gouge and altered mafic dyke.</p> <p>159.2-162.9 FAULT GOUGE clay-like flow, badly broken to 161.7 then like a mud-cake to 162.9, fault may be subparallel to core (5° to C/A).</p>	P09944	156.0	159.0	3.0	48				
162.9	179.0	<p><b>SOLUTION BRECCIA</b> Black and white, hydrothermal solution breccia quartz diorite is fractured and brecciated to 1-5cm sized angular fragments cemented by black quartz-tourmaline matrix, 1-2% pyrite, locally, mostly barren of sulphides, 70% of zone is badly broken, vuggy material.</p> <p>162.9-168.3 Core badly broken to crumbs, 50% black matrix, 50% cm sized angular fragments.</p> <p>167.5- 30cm. mud-cake like fault with schistosity at 8° to C/A.</p> <p>168.3-170.8 Sand seam, fault-breccia fragments.</p> <p>170.8-174.0 60% black quartz-tourmaline matrix, 0.5cm. blebs of pyrite locally, 25% core badly broken.</p> <p>174.0-179.0 65% white altered quartz diorite fragments, angular, weak schistosity at 45° locally.</p>	P09945 P09946 P09947	162.9 165.0 166.5	165.0 166.5 168.3	2.1 1.5 1.8	398 2817 576				
			P09948 P09949	170.8 172.5	172.5 174.0	1.7 1.5	304 296				
			P09950 P09951 P09952 P09953	174.0 175.5 177.0 178.0	175.5 177.0 178.0 179.0	1.5 1.5 1.0 1.0	69 219 539 321				

RIO ALGOM EXPLORATION INC.  
DIAMOND DRILL RECORD

HOLE NO: KL 91-05

PAGE NO: 4 of 6

INTERVAL		DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
FROM	TO			FROM	TO						
179.0	218.8	ALTERED QUARTZ DIORITE WITH QUARTZ-TOURMALINE SOLUTION BRECCIA/VEINING. Light grey, to white, silicified and sericitized quartz diorite, showing strong foliation at 20°-60° to C/A with several sections (50%) brecciated with black quartz tourmaline matrix (solution breccia), these breccia sections have strong foliation, 10% of core badly broken and blocky, 1-7% pyrite.									
		179.0-179.5 Altered quartz diorite, foliation 58° C/A, 1% pyrite.	P09954	179.0	179.5	0.5	69				
		179.5-180.3 Quartz-tourmaline solution breccia, core badly broken.	P09955	179.5	180.3	0.8	127				
		180.3-181.3 Altered quartz diorite, schistosity at 20° to C/A, 1% pyrite.	P09956	180.3	181.3	1.0	26				
		181.3-187.0 50% altered quartz diorite, 50% black tourmaline-quartz veins, 3% pyrite in blebs.	P09957	181.0	183.0	1.7	64				
		187.0-188.3 Dark grey, medium grained, quartz-tourmaline vein, or dyke? 3% pyrite, ankerite altered.	P09958	183.0	184.5	1.5	160				
		188.3-189.7 35% black quartz-tourmaline veins in brecciated altered quartz diorite.	P09959	184.5	186.0	1.5	181				
		189.7-194.2 40% black quartz-tourmaline stringers in brecciated altered quartz diorite.	P09960	186.0	187.0	1.0	45				
		194.2-200.1 Strongly altered quartz diorite, sericitic, grey quartz-tourmaline seams accent schistosity at 26° to C/A, 1-2% disseminated pyrite.	P09961	187.0	188.3	1.3	79				
		200.1-202.5 30% black quartz-tourmaline stringers, sericitic, ankerite altered.	P09962	188.3	189.7	1.4	80				
		202.5-205.1 60-80% black quartz tourmaline veining, 7-10% pyrite, irregular schistosity at 5-20° to C/A.	P09963	189.7	191.2	1.5	155				
		205.1-207.8 Dark grey, quartz tourmaline vein or dyke, 2mm grain size, 50% of section badly	P09964	191.2	192.7	1.5	53				
			P09965	192.7	194.2	1.5	69				
			P09966	194.2	195.7	1.5	51				
			P09967	195.7	197.1	1.4	549				
			P09968	197.1	198.6	1.5	112				
			P09969	198.6	200.1	1.5	45				
			P09970	200.1	201.6	1.5	54				
			P09971	201.6	202.5	0.9	85				
			P09972	202.5	203.5	1.0	75				
			P09973	203.5	205.1	1.6	99				
			P09974	205.1	206.1	1.0	74				
			P09975	206.1	207.0	0.9	102				



**RIO ALGOM EXPLORATION INC.**  
DIAMOND DRILL RECORD

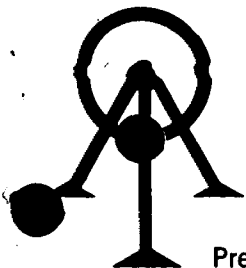
HOLE NO: KL 91-05

PAGE NO: 6 of 6

INTERVAL FROM	TO	DESCRIPTION	SAMPLE NO	INTERVAL		LGTH	Au ppb	Ag g/t	Cu %	Pb %	Zn %
				FROM	TO						
		broken blocky core.	P09992	229.3	231.0	1.7	18				
		229.3-232.5 dark grey, tourmalinized, locally likely quartz-tourmaline vein, 40% core broken, trace-1% pyrite.	P09993	231.0	232.5	1.5	14				
		232.5-239.3 50% white sericitic quartz diorite, sharp contacts, may be rounded breccia fragments, in dark grey tourmalinized matrix, trace to 1% pyrite.	P09994	232.5	234.0	1.5	18				
			P09995	234.0	235.5	1.5	18				
			P09996	235.5	237.0	1.5	18				
			P09997	237.0	238.5	1.5	23				
			P09998	238.5	240.0	1.5	21				
			P09999	240.0	241.5	1.5	5				
			P10000	241.5	243.0	1.5	7				
		239.3-243.0 Dark grey, vuggy, tourmaline altered, 30% of core broken. trace pyrite.									
243		END OF HOLE									

*Heintz*





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P.O. BOX 426  
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## Certificate of Analysis

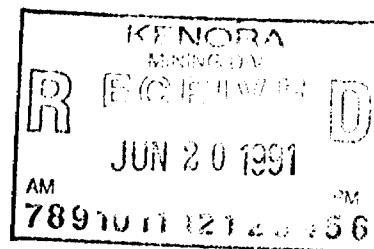
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36706 Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

Date: February 6 19 91

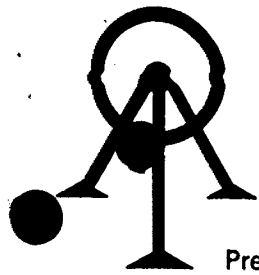
Work Order # : T910041  
Project : 8928

SAMPLE NUMBERS Accurassay	Customer	Gold ppb
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539093	A02053	248
539094	A02054	149
539095	A02055	49
539096	A02056	77
539097	A02057	238
539098	A02058	44
539099	A02059	277
539100	A02060	254
539100	A02060	220 ↑ Check
539101	A02061	124
539102	A02062	163
539103	A02063	179
539104	A02064	120
539105	A02065	279
539106	A02066	358
539107	A02067	79
539107	A02067	57 Check



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Page: 1

36719 Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

Date: February 7 19 91

Work Order # : T910045  
Project : 8928

SAMPLE NUMBERS		Gold ppb
Accurassay	Customer	
539151	A02068	259
539152	A02069	440
539153	A02070	279
539154	A02071	137
539155	A02072	100
539156	A02073	474
539157	A02074	289
539158	A02075	167
539159	A02076	97
539160	A02077	72
539160	A02077	50
539161	A02078	12
539162	A02079	14
539163	A02080	9
539164	A02081	10
539165	A02082	19
539166	A02083	66
539167	A02084	20
539168	A02085	86
539169	A02086	18
539169	A02086	17
539170	A02087	22
539171	A02088	23
539172	A02089	24
539173	A02090	16
539174	A02091	105
539174	A02091	28

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36729 Kevin Kivi  
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Thunder Bay, Ontario  
P7C 1A9

Date: February 8 19 91

Work Order # : T910048  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
539227	A02092	34
539228	A02093	17
539229	A02094	83
539230	A02095	48
539231	A02096	48
539232	A02097	35
539233	A02098	94
539234	A02099	63
539235	A02100	45
539236	A02101	73
539236	A02101	85
539237	A02102	162
539238	A02103	142
539239	A02104	91
539240	A02105	164
539241	A02106	48
539242	A02107	47
539243	A02108	23
539244	A02109	109
539245	A02110	118
539245	A02110	175
539246	A02111	65
539247	A02112	43
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539250	A02115	139

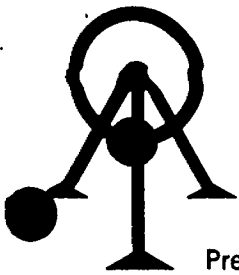
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Page: 1

36752 Kevin Kivi  
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Thunder Bay, Ontario  
P7C 1A9

Date: February 12 19 91

Work Order # : T910052  
Project : 8928

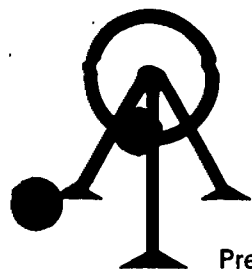
SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
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539415	A02117	134
539416	A02118	243
539417	A02119	82
539418	A02120	91
539419	A02121	59
539420	A02122	103
539421	A02123	426
539422	A02124	63
539423	A02125	78
539423	A02125	101
539424	A09726	103
539425	A09727	132
539426	A09728	83
539427	A09729	93
539428	A09730	28
539429	A09731	638
539430	A09732	297
539431	A09733	94
539432	A09734	97
539432	A09734	117
539433	A09735	96
539434	A09736	46
539435	A09737	44
539436	A09738	291
539437	A09739	150
539438	A09740	37
539439	A09741	41
539440	A09742	37
539441	A09743	22
539441	A09743	21

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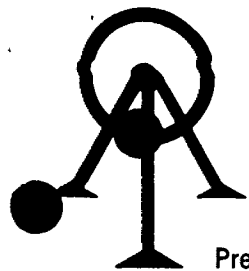
36753 Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

Date: February 12 19 91

Work Order # : T910052  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
539442	A09744	11
539443	A09745	44
539444	A09746	36
539445	A09747	29
539446	A09748	9
539447	A09749	111
539448	A09750	32
539449	A09751	21
539450	A09752	173
539450	A09752	102 Check
539451	A09753	35
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539453	A09755	58
539454	A09756	29
539455	A09757	48
539456	A09758	45
539457	A09759	39
539458	A09760	30
539459	A09761	120
539459	A09761	124 Check
539460	A09762	78
539460	A09762	64 Check

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Page: 1

Kevin Kivi  
Rio Algom Exploration  
36762 105 May St.S. Suite 108  
Thunder Bay, Ontario  
P7C 1A9

Date: February 13 19 91

Work Order # : T910056  
Project : 8928

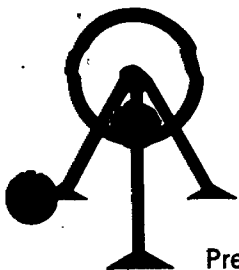
SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
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539610	A09764	22
539611	A09765	43
539612	A09766	27
539613	A09767	19
539614	A09768	19
539615	A09769	18
539616	A09770	16
539617	A09771	16
539618	A09772	11
539618	A09772	11
539619	A09773	12
539620	A09774	40
539621	A09775	25
539622	A09776	24
539623	A09777	6
539624	A09778	18
539625	A09779	22
539626	A09780	6
539627	A09781	42
539627	A09781	43
539628	A09782	17
539629	A09783	10
539630	A09784	22
539631	A09785	21
539632	A09786	15
539633	A09787	17
539634	A09788	18
539635	A09789	16
539636	A09790	26
539636	A09790	25

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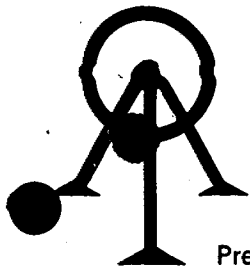
36776 Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

Date: February 14 19 91

Work Order # : T910060  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
539812	P09151	10
539813	P09152	19
539814	P09153	16
539815	P09154	14
539816	P09155	28
539817	P09156	32
539818	P09157	11
539819	P09158	30
539820	P09159	116
539821	P09791	27
539821	P09791	20 Check
539822	P09792	86
539823	P09793	18
539824	P09794	34
539825	P09795	116
539826	P09796	96
539827	P09797	14
539828	P09798	11
539829	P09799	12
539830	P09800	10
539830	P09800	10 Check

Per: Blaine Dwyer



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Page: 1

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February 15

91

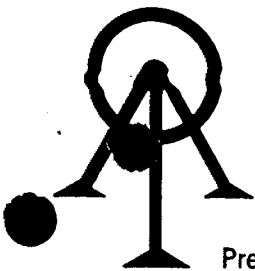
Work Order # : T910068  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
540062	P09160	54
540063	P09243	15
540064	P09244	41
540065	P09245	82
540066	P09246	91
540067	P09508	113
540068	P09509	60
540069	P09510	113
540070	P09511	15
540071	P09512	18
540071	P09512	18 Check
540072	P09513	80
540073	P09514	155
540074	P09515	200
540074	P09515	145 Check

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Work Order # : T910071  
Project : 8928

SAMPLE NUMBERS		Gold ppb
Accurassay	Customer	
540134	P9161	40
540135	P9162	94
540136	P9163	129
540137	P9164	38
540138	P9165	22
540139	P9166	45
540140	P9167	92
540141	P9168	88
540142	P9169	47
540143	P9170	46
540143	P9170	50
540144	P9171	93
540145	P9172	146
540146	P9173	142
540147	P9174	63
540148	P9175	33
540149	P9201	44
540150	P9202	54
540151	P9203	44
540152	P9204	43
540152	P9204	66
540153	P9205	18
540154	P9206	19
540155	P9207	43
540156	P9208	18
540156	P9208	16

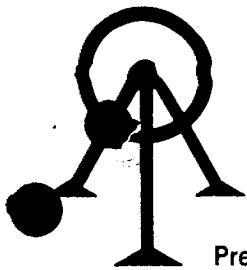
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Work Order # : T910077  
Project : 8928

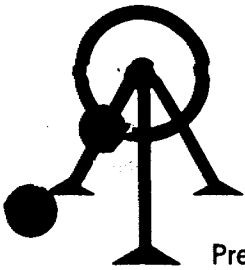
SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
540323	P9209	23
540324	P9210	45
540325	P9211	30
540326	P9212	24
540327	P9213	9
540328	P9214	27
540329	P9215	24
540330	P9216	55
540331	P9217	22
540332	P9218	45
540332	P9218	48
540333	P9219	37
540334	P9220	35
540335	P9221	163
540336	P9222	136
540337	P9223	147
540338	P9224	43
540339	P9225	39
540340	P9226	37
540341	P9227	14
540341	P9227	15
540342	P9228	14
540343	P9229	8
540344	P9230	28
540345	P9231	26
540346	P9232	17
540347	P9233	12
540348	P9234	32
540349	P9235	21
540350	P9236	25
540350	P9236	20

Check

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Page: 2

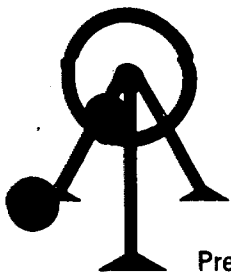
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Work Order # : T910077  
Project : 8928

SAMPLE NUMBERS		Gold	
Accurassay	Customer	ppb	
540351	P9237	26	
540352	P9238	20	
540353	P9239	26	
540354	P9240	21	
540355	P9241	17	
540356	P9242	25	
540357	P9247	142	
540358	P9248	22	
540359	P9249	46	
540359	P9249	63	Check
540360	P9250	43	
540361	P9501	77	
540362	P9502	31	
540363	P9503	79	
540364	P9504	62	
540365	P9505	640	
540366	P9506	279	
540367	P9507	350	
540368	P9516	186	
540368	P9516	225	Check
540369	P9517	150	
540370	P9518	94	
540371	P9519	38	
540372	P9520	30	
540373	P9521	23	
540374	P9522	48	
540375	P9523	40	
540376	P9524	44	
540377	P9525	190	
540377	P9525	136	Check
540378	P9526	173	



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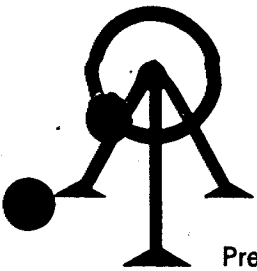
February 20

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Work Order # : T910077  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
540379	P9527	139
540380	P9528	374
540381	P9529	91
540382	P9530	31
540383	P9531	214
540384	P9532	60
540385	P9533	46
540386	P9534	146
540386	P9534	172 Check

Per: B. Duncan



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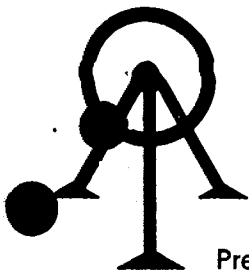
February 20

91

Work Order # : T910079  
 Project : 8928

SAMPLE NUMBERS		Gold ppb	
Accurassay	Customer		
540471	P09535	63	
540472	P09536	74	
540473	P09537	77	
540474	P09538	52	
540475	P09539	52	
540476	P09540	32	
540477	P09541	100	
540478	P09542	232	
540479	P09543	70	
540480	P09544	45	
540480	P09544	44	Check
540481	P09545	35	
540482	P09546	52	
540483	P09547	47	
540484	P09548	234	
540485	P09549	157	
540486	P09550	418	
540487	P09551	50	
540488	P09552	79	
540488	P09552	79	Check

Per: Blaine Vint



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February 22

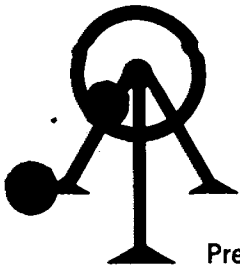
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Work Order # : T910080  
 Project : 8928

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
540489	P9553	26	
540490	P9554	63	
540491	P9555	62	
540492	P9556	48	
540493	P9557	547	
540494	P9558	28	
540495	P9559	39	
540496	P9560	28	
540497	P9561	28	
540498	P9562	147	
540498	P9562	119	Check
540499	P9563	43	
540500	P9564	44	
540501	P9565	95	
540501	P9565	106	Check

Per:

*Blaine Vulliamy*



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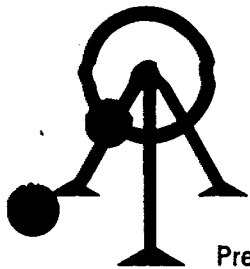
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February 22

91

Work Order # : T910082  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
540565	P9566	442
540566	P9567	29
540567	P9568	45
540568	P9569	55
540569	P9570	237
540570	P9571	66
540571	P9572	255
540572	P9573	75
540573	P9574	72
540574	P9575	46
540574	P9575	46 Check
540575	P9576	100
540576	P9577	134
540577	P9578	62
540578	P9579	188
540579	P9580	314
540579	P9580	251 Check



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February 27

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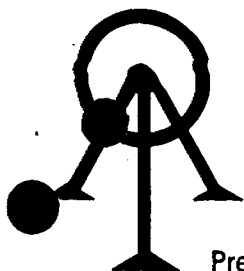
Work Order # : T910087  
Project : 8928

SAMPLE NUMBERS		Gold	
Accurassay	Customer	ppb	
540681	P9581	34	
540682	P9582	22	
540683	P9583	15	
540684	P9584	16	
540685	P9585	14	
540686	P9586	19	
540687	P9587	20	
540688	P9588	17	
540689	P9589	18	
540690	P9590	22	
540690	P9590	19	Check
540691	P9591	19	
540692	P9592	22	
540693	P9593	24	
540694	P9594	27	
540695	P9595	31	
540696	P9596	33	
540697	P9597	41	
540698	P9598	32	
540699	P9599	45	
540699	P9599	41	Check
540700	P9600	80	
540701	P9601	15	
540702	P9602	32	
540703	P9603	53	
540704	P9604	28	
540705	P9605	28	
540706	P9606	23	
540707	P9607	20	
540708	P9608	28	
540708	P9608	20	Check

Per: Blaine Dunc

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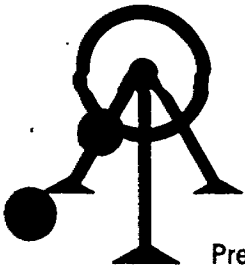
February 27

91

Work Order # : T910087  
 Project : 8928

SAMPLE NUMBERS		Gold	
Accurassay	Customer	ppb	
540709	P9609	18	
540710	P9610	20	
540711	P9611	37	
540712	P9612	13	
540713	P9613	11	
540714	P9614	187	
540715	P9615	13	
540716	P9616	23	
540717	P9617	27	
540717	P9617	38	Check
540718	P9618	17	
540719	P9619	24	
540720	P9620	15	
540721	P9621	19	
540722	P9622	18	
540723	P9623	81	
540724	P9624	14	
540725	P9625	16	
540726	P9626	14	
540726	P9626	15	Check
540727	P9627	11	
540728	P9628	12	
540729	P9629	27	
540730	P9630	30	
540731	P9631	20	
540732	P9632	24	
540733	P9633	17	
540734	P9634	14	
540735	P9635	12	
540735	P9635	14	Check
540736	P9636	21	

Per: Blaine Wright



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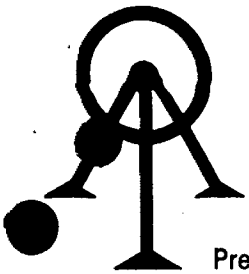
February 27

91

Work Order # : T910087  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
540737	P9637	30
540737	P9637	29 Check

Per: Blaine Duff



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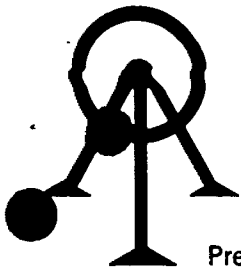
February 28

91

Work Order # : T910087A  
Project : 8928

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
540738	P9638	<5	
540739	P9639	<5	
540740	P9640	<5	
540741	P9641	<5	
540742	P9642	6	
540743	P9643	6	
540744	P9644	9	
540745	P9645	12	
540746	P9646	11	
540747	P9647	19	
540747	P9647	19	Check
540748	P9648	7	
540749	P9649	20	
540750	P9650	13	
540751	P9651	11	
540752	P9652	11	
540753	P9653	5	
540754	P9654	21	
540755	P9655	110	
540756	P9656	28	
540756	P9656	27	Check
540757	P9657	32	
540758	P9658	20	
540759	P9659	58	
540760	P9660	87	
540761	P9661	46	
540762	P9662	40	
540763	P9663	73	
540764	P9664	49	
540765	P9665	31	
540765	P9665	31	Check

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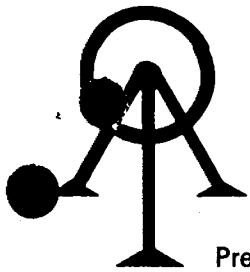
February 28

91

Work Order # : T910087A  
Project : 8928

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
540766	P9666	32
540767	P9667	44
540768	P9668	15
540769	P9669	15
540770	P9670	27
540771	P9671	85
540772	P9672	115
540773	P9673	33
540774	P9674	52
540774	P9674	52 Check
540775	P9675	127
540776	P9676	47
540777	P9677	22
540778	P9678	23
540779	P9679	16
540780	P9680	18
540781	P9681	11
540782	P9682	7
540783	P9683	12
540783	P9683	13 Check
540784	P9684	20
540785	P9685	11
540786	P9686	16
540786	P9686	14 Check

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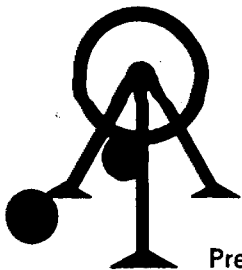
March 5

91

Work Order # : T910095  
Project : 8925

SAMPLE NUMBERS	Customer	Gold	
Accurassay		ppb	
541063	P09687	7	
541064	P09688	11	
541065	P09689	13	
541066	P09690	7	
541067	P09691	52	
541068	P09692	29	
541069	P09693	13	
541070	P09694	17	
541071	P09695	15	
541072	P09696	20	
541072	P09696	14	Check
541073	P09697	15	
541074	P09698	21	
541075	P09699	11	
541076	P09700	17	
541077	P09701	30	
541078	P09702	18	
541079	P09703	49	
541080	P09704	55	
541081	P09705	28	
541081	P09705	27	Check
541082	P09706	20	
541083	P09707	58	
541084	P09708	16	
541085	P09709	23	
541086	P09710	55	
541087	P09742	115	
541088	P09743	189	
541089	P09744	95	
541090	P09745	129	
541090	P09745	130	Check

Per: Blaine Vint



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43108

## Certificate of Analysis

Page: 2

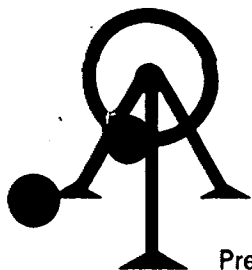
Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

March 5

91

Work Order # : T910095  
Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541091	P09746	275
541092	P09747	36
541093	P09748	65
541094	P09749	75
541094	P09749	73 Check



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43121

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Page: 1

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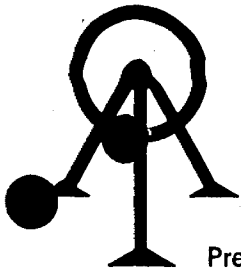
March 8

91

Work Order # : T910097  
Project : 8925

SAMPLE NUMBERS	Customer	Gold ppb	
Accurassay			
541096	204551	35	
541097	204552	26	
541098	204553	37	
541099	204554	38	
541100	P09711	43	
541101	P09712	49	
541102	P09713	180	
541103	P09714	27	
541104	P09715	28	
541105	P09718	38	
541105	P09718	34	Check
541106	P09719	30	
541107	P09720	19	
541108	P09721	101	
541109	P09722	184	
541110	P09723	28	
541111	P09724	29	
541112	P09725	12	
541113	P09726	18	
541114	P09727	31	
541114	P09727	26	Check
541115	P09728	24	
541116	P09729	53	
541117	P09730	54	
541118	P09731	67	
541119	P09732	49	
541120	P09733	55	
541121	P09734	38	
541122	P09735	251	
541123	P09736	47	
541123	P09736	41	Check

Per: Blaine White



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Page: 2

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March 8

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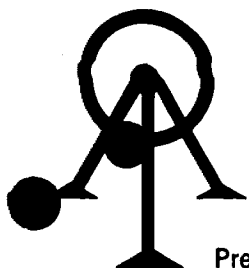
Work Order # : T910097  
Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541124	P09737	149
541125	P09738	87
541126	P09739	184
541127	P09740	35
541128	P09741	80
541129	P09750	19
541129	P09750	16 Check

Per:

*Blaine [Signature]*





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Page: 1

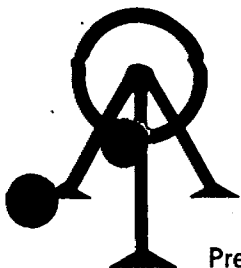
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P7C 1A9

March 14

91

Work Order # : T910106  
Project : 89286

SAMPLE NUMBERS	Customer	Gold	
Accurassay		ppb	
541441	P09926	22	
541442	P09927	23	
541443	P09928	18	
541444	P09929	25	
541445	P09930	27	
541446	P09931	51	
541447	P09932	30	
541448	P09933	99	
541449	P09934	55	
541450	P09935	68	
541450	P09935	61	Check
541451	P09936	38	
541452	P09937	82	
541453	P09938	23	
541454	P09939	62	
541455	P09940	30	
541456	P09941	72	
541457	P09942	43	
541458	P09943	100	
541459	P09944	61	
541459	P09944	48	Check
541460	P09945	398	
541461	P09946	2817	
541462	P09947	576	
541463	P09948	304	
541464	P09949	296	
541465	P09950	69	
541466	P09951	219	
541467	P09952	539	
541468	P09953	321	
541468	P09953	341	Check



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## Certificate of Analysis

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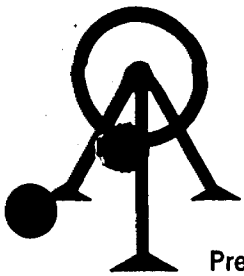
March 14

91

Work Order # : T910106  
Project : 89258

SAMPLE NUMBERS		Gold	
Accurassay	Customer	ppb	
541469	P09954	69	
541470	P09955	127	
541471	P09956	26	
541472	P09957	64	
541473	P09958	160	
541474	P09959	181	
541475	P09960	45	
541476	P09961	79	
541477	P09962	91	
541477	P09962	69	Check
541478	P09963	155	
541479	P09964	59	
541479	P09964	47	Check

Per: *Blaine V...*



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Page #1

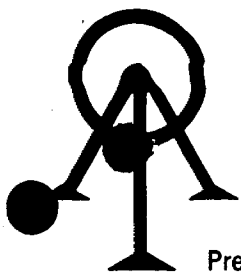
March 15, 1991

Work Order: T910106  
Project: 89258

Reassay results are as follows:

SAMPLE NUMBER		Original	Reassay
Accurassay	Customer	Gold	Gold
		ppb	ppb
541461	P09946	2817	3291

Per: Blaine W. [Signature]



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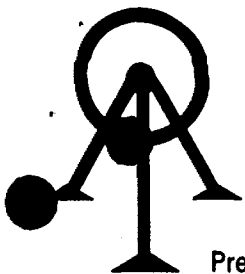
March 15

91

Work Order # : T910108  
 Project : 89258

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541532	P09965	69
541533	P09966	51
541534	P09967	549
541535	P09968	112
541536	P09969	45
541537	P09970	54
541538	P09971	85
541539	P09972	75
541540	P09973	99
541541	P09974	97
541541	P09974	74 Check
541542	P09975	102
541543	P09976	84
541544	P09977	50
541545	P09978	101
541546	P09979	34
541547	P09980	33
541548	P09981	28
541549	P09982	28
541550	P09983	27
541550	P09983	26 Check
541551	P09984	36
541552	P09985	47
541553	P09986	275
541554	P09987	661
541555	P09988	22
541556	P09989	26
541557	P09990	18
541558	P09991	22
541559	P09992	25
541559	P09992	18 Check

Per: Blaine Vuth



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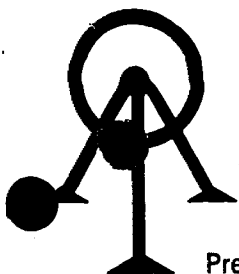
March 15

91

Work Order # : T910108  
Project : 89283

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541560	P09993	14
541560	P09993	35 Check

Per: Blaine W. [Signature]



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Page: 1

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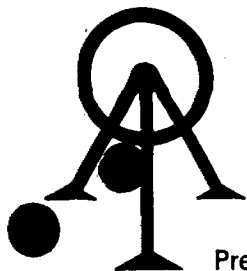
March 19

91

Work Order # : T910110  
Project : 8925/43

SAMPLE NUMBERS	Customer	Gold ppb	
541576	P09994	18	
541577	P09995	18	
541578	P09996	18	
541579	P09997	23	
541580	P09998	21	
541581	P09999	5	
541582	P010000	7	
541583	P07626	5	
541584	P07627	<5	
541585	P07628	6	
541585	P07628	5	Check
541586	P07629	5	
541587	P07630	<5	
541588	P07631	5	
541589	P07632	<5	
541590	P07633	24	
541591	P07634	5	
541592	P07635	12	
541593	P07636	<5	
541594	P07637	7	
541594	P07637	5	Check
541595	P07638	5	
541596	P07639	8	
541597	P07640	5	
541598	P07641	<5	
541599	P07642	7	
541600	P07643	35	
541601	P07644	357	
541602	P07645	14	
541603	P07646	12	
541603	P07646	11	Check

Per: B. Kivi



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43207

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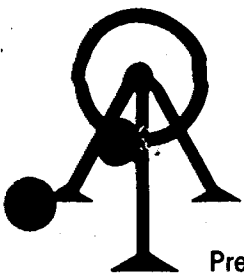
Kevin Kivi  
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105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

March 19

91

Work Order # : T910110  
Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541604	P07647	14
541605	P07648	50
541606	P07649	30
541607	P07650	33
541608	P07651	10
541609	P07652	67
541610	P07653	40
541611	P07654	25
541611	P07654	15 Check



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Page: 1

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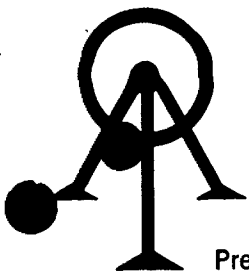
March 19

91

Work Order # : T910113  
Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541660	P07668	15
541661	P07669	10
541662	P07670	30
541663	P07671	22
541664	P07672	5
541665	P07673	<5
541666	P07674	5
541667	P07675	61
541668	P07676	27
541669	P07677	27
541669	P07677	25 Check
541670	P07678	87
541671	P07679	23
541672	P07680	27
541673	P07681	35
541674	P07682	5
541675	P07683	11
541676	P07684	11
541677	P07685	16
541678	P07686	40
541678	P07686	20 Check
541679	P07687	18
541680	P07688	17
541681	P07689	14
541682	P07690	38
541683	P07691	18
541684	P07692	64
541685	P07693	53
541686	P07694	37
541687	P07695	14
541687	P07695	16 Check





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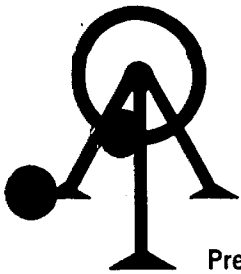
March 19

91

Work Order # : T910113  
Project : 8925

SAMPLE NUMBERS		Gold	
Accurassay	Customer	ppb	
541688	P07696	24	
541689	P07697	43	
541690	P07698	128	
541691	P07699	40	
541692	P07700	55	
541693	P07701	33	
541694	P07702	44	
541695	P07703	25	
541696	P07704	42	
541696	P07704	21	Check
541697	P07705	45	
541697	P07705	27	Check

Per: Blaine [Signature]



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March 20

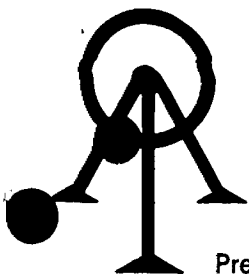
91

Work Order # : T910118  
Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541815	P7655	8
541816	P7656	5
541817	P7657	9
541818	P7658	11
541819	P7659	5
541820	P7660	9
541821	P7661	8
541822	P7662	9
541823	P7663	18
541824	P7664	21
541824	P7664	16 Check
541825	P7665	13
541826	P7666	9
541827	P7667	13
541827	P7667	13 Check

Per:

Blaine V. [Signature]



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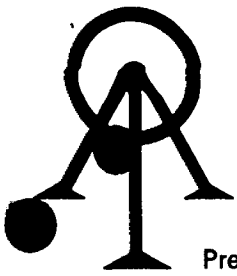
March 21

91

Work Order # : T910120  
 Project : 8925

SAMPLE NUMBERS		Gold	
Accurassay	Customer	ppb	
541863	P07706	6	
541864	P07707	5	
541865	P07708	9	
541866	P07709	<5	
541867	P07710	6	
541868	P07711	<5	
541869	P07712	5	
541870	P07713	5	
541871	P07714	8	
541872	P07715	14	
541872	P07715	8	Check
541873	P07716	15	
541874	P07717	17	
541875	P07718	25	
541876	P07719	118	
541877	P07720	34	
541878	P07721	36	
541879	P07722	35	
541880	P07723	26	
541881	P07724	18	
541881	P07724	21	Check
541882	P07725	28	
541883	P07726	32	
541884	P07727	21	
541885	P07728	14	
541886	P07729	10	
541887	P07730	13	
541888	P07731	18	
541889	P07732	18	
541890	P07733	22	
541890	P07733	21	Check

Per: Blaine [Signature]



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43228

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Page: 2

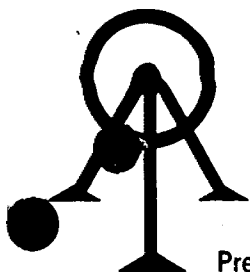
Kevin Kivi  
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Thunder Bay, Ontario  
P7C 1A9

March 21

91

Work Order # : T910120  
Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541891	P07734	53
541892	P07735	38
541893	P07736	51
541893	P07736	44 Check



**ACCURASSAY LABORATORIES**  
A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO  
BOX 426  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1  
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

43229

# Certificate of Analysis

Page: 1

Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

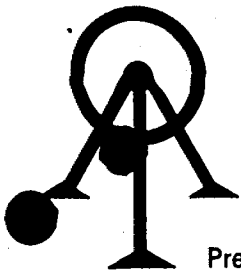
March 21

91

Work Order # : T910121  
Project : 8925

SAMPLE NUMBERS	Customer	Gold ppb	
Accurassay			
541894	P07737	56	
541895	P07738	41	
541896	P07739	50	
541897	P07740	55	
541898	P07741	12	
541899	P07742	85	
541900	P07743	23	
541901	P07744	18	
541902	P07745	23	
541903	P07746	15	
541903	P07746	14	Check
541904	P07747	25	
541905	P07748	50	
541906	P07749	36	
541907	P07750	13	
541908	P13726	20	
541909	P13727	40	
541910	P13728	115	
541911	P13729	120	
541912	P13730	27	
541912	P13730	26	Check
541913	P13731	52	
541914	P13732	176	
541915	P13733	23	
541916	P13734	106	
541917	P13735	231	
541918	P13736	77	
541919	P13737	151	
541920	P13738	35	
541921	P13739	22	
541921	P13739	18	Check

Per: Blaine V. [Signature]



# ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO

BOX 426

KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1

TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

43230

## Certificate of Analysis

Page: 2

Kevin Kivi  
Rio Algom Exploration  
105 May St.S.Suite 108  
Thunder Bay, Ontario  
P7C 1A9

March 21

91

Work Order # : T910121

Project : 8925

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
541922	P13740	38
541923	P13741	78
541924	P13742	110
541924	P13742	113 Check

Per: Blaine Vint

*Assess file*  
**Report of Work Conducted After Recording Claim**

Transaction Number  
**W9110-5001**

**Mining Act**



Personal information collected on this form is obtained under the authority of the Mi this collection should be directed to the Provincial Manager, Mining Lands, Mini Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

900

Recorded Holder(s) <b>RIO ALGOM EXPLORATION INC.</b>		Client No.
Address <b>2400 - 120 Adelaide Street West , Toronto, Ontario M5H1W5</b>		Telephone No. <b>(416)367-4000</b>
Mining Division <b>KENORA</b>	Township/Area <b>Brooks L.; Heronry L.</b>	M or G Plan No. <b>G2670; G2621</b>
Dates Work Performed	From: <b>January 29, 1991</b>	To: <b>March 19, 1991</b>

**Work Performed (Check One Work Group Only)**

Work Group	Type
<input type="checkbox"/> Geotechnical Survey	
<input checked="" type="checkbox"/> Physical Work, Including Drilling	<b>2282m BQ Diamond Drilling from Ice (Deep Water)</b>
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

ONTARIO GEOLOGICAL SURVEY  
GIS - ASSESSMENT FILES  
AUG 08 1991  
**RECEIVED**  
104,413

Total Assessment Work Claimed on the Attached Statement of Costs \$ ~~198,210~~ **(\$86.86/m)**

**Note:** The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

**Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)**

Name	Address
Kevin Kivi (author)	78 Crown Street, Thunder Bay, Ont. P7B 3J9
St. Lambert Drilling Co. Ltd.	P.O. Box 473, Valleyfield Quebec J6S 4V7
Hanson's Wilderness Lodges	Box 96, Nestor Falls, Ont. P0X 1K0 (ploughing)
Accurassay Labs (assays)	Box 426, Kirkland Lake, Ont. P2N 3J1

**(attach a schedule if necessary)** Double Rainbow (drafting) 1240 Mountain Rd, Thunder Bay, Ont. P7C 4Z2

**Certification of Beneficial Interest \* See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <b>June 14/91</b>	Recorded Holder or Agent (Signature) <i>Kevin Kivi</i>
--	---------------------------	---

**Certification of Work Report**

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying <b>Kevin Kivi 78 Crown Street, Thunder Bay, Ontario P7B 3J9</b>		
Telephone No. <b>(807) 345-2938</b>	Date <b>June 14, 1991</b>	Certified By (Signature) <i>Kevin Kivi</i>

**For Office Use Only**

Total Value Cr. Recorded <b>104,413 BANKED</b>	Date Recorded <b>June 20/91</b>	Mining Recorder <i>Kevin Kivi</i>	Received Stamp KENORA JUN 20 1991 AM 7891011 12123456
	Deemed Approval Date	Date Approved <b>July 26/91</b>	
	Date Notice for Amendments Sent		







Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des mines

Statement of Costs  
for Assessment Credit

État des coûts aux fins  
du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

W 9110-5001

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		11,774
	Field Supervision Supervision sur le terrain	11,774 2204	2204
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type Diamond Drilling	75,039 140469	
	Snow Ploughing	0 20604	25,110
	Drafting	71 132	45,180
Supplies Used Fournitures utilisées	Type Field Supplies	396 742	396
			742
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			87,280 174,000

2. Indirect Costs/Coûts indirects

\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Turck & B Fuel	1729 -3236	
	Assays & Freight	3938 -2772	
			5667
Food and Lodging Nourriture et hébergement	Cabin, coreshack Meals, & Groceries	2830 5298	8128
			8128
Mobilization and Demobilization Mobilisation et démobilisation	Drill Crew & Equipment	4620	12,748
Sub Total of indirect Costs Total partiel des coûts indirects			13,117
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			2,723
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)			104,557
Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			104,557

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

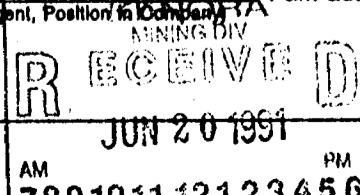
Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify:  
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as GEOLOGIST I am authorized  
(Recorded Holder, Agent, Position in Company)

to make this certification



Attestation de l'état des coûts

J'atteste par la présente :  
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé  
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature [Signature] Date June 14/1991

**ACCORASSAY LABORATORIES LTD.**

CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS

Box 426, 3 Industrial Dr., Kirkland Lake  
Ontario, Canada P2N 3J1

# INVOICE

# 791439

TEL.: (705) 567-3361 - FAX: (705) 567-8368

TO  
Kevin Kivi  
Rio Algom Exploration  
Suite 108  
105 May Street S.  
Thunder Bay, Ontario  
P7C 1A9


DATE	February 15, 1991
CUSTOMER ORDER N°	Project: 8928
WORK ORDER N°	
DATE SUBMITTED	Various

TERMS

net 30 days 2.0% per month on overdue accounts

QUANTITY	DESCRIPTION	PRICE	AMOUNT
17	Gold Assays W.O. #T910041	7.00	119 00
17	Sample Prep. cert.# 36706	3.25	55 25
24	Gold Assays W.O. #T910045	7.00	168 00
24	Sample Prep. cert.# 36719	3.25	78 00
24	Gold Assays W.O. #T910048	7.00	168 00
24	Sample Prep. cert.# 36729	3.25	78 00
47	Gold Assays W.O. #T910052	7.00	329 00
47	Sample Prep. cert.# 36752-53	3.25	152 75
28	Gold Assays W.O. #T910056	7.00	196 00
28	Sample Prep. cert.# 36762	3.25	91 00
19	Gold Assays W.O. #T910060	7.00	133 00
19	Sample Prep. cert.# 36776	3.25	61 75
	Sub-total.....		1629 75
	7 % GST # R121844088		114 08
	Amount due before March 17, 1991.....		1743 83

Please note: Accounts more than 45 days past due will lose any price discounts

*ER*  91-02-25

Thank You!

LF-1297

102 x 7 714  
102 x 3.25 331.50  
-----  
1045.50  
73.19  
-----  
1118.69

10 x 7.00 70.00  
10 x 3.25 32.50  
-----  
102.50  
7.18  
-----  
109.68

**ACCURASSAY LABORATORIES LTD.**  
 CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS  
 Box 426, 3 Industrial Dr., Kirkland Lake  
 Ontario, Canada P2N 3J1

# INVOICE

# 791451

TEL.: (705) 567-3361 - FAX: (705) 567-8368

DATE	February 26, 1991
CUSTOMER ORDER N°	Project: 8928
WORK ORDER N°	
DATE SUBMITTED	Various

TO  
 Kevin Kivi  
 Rio Algom Exploration  
 Suite 108  
 105 May Street S.  
 Thunder Bay, Ontario  
 P7C 1A9

TERMS

QUANTITY	DESCRIPTION	RATE	AMOUNT
13	Gold Assays W.O. #T910068	7.00	91 00
13	Sample Prep. cert.# 43005	3.25	42 25
23	Gold Assays W.O. #T910071	7.00	161 00
23	Sample Prep. cert.# 43023	3.25	74 75
64	Gold Assays W.O. #T910077	7.00	448 00
64	Sample Prep. cert.# 43042-44	3.25	208 00
18	Gold Assays W.O. #T910079	7.00	126 00
18	Sample Prep. cert.# 43045	3.25	58 50
13	Gold Assays W.O. #T910080	7.00	91 00
13	Sample Prep. cert.# 43051	3.25	42 25
15	Gold Assays W.O. #T910082	7.00	105 00
15	Sample Prep. cert.# 43056	3.25	48 75
1	Freight Bill--Excel Coach--00543690	12.95	12 95
1	Freight Bill--Greyhound--13130338896	39.15	39 15
1	Freight Bill--Excel Coach--00543692	12.95	12 95
	Sub-total.....		1561 55
	7 % GST # R121844088		109 31
	Amount due before March 28, 1991.....		1670 86

*8928*  
*Kevin Kivi*  
*March 5/91*

Please note: Accounts more than 45 days past due will lose any price discounts

*Thank You!*

**ACCURASSAY LABORATORIES LTD.**

CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS

Box 426, 3 Industrial Dr., Kirkland Lake

Ontario, Canada P2N 3J1

**INVOICE**

# 791458

TEL.: (705) 567-3361 - FAX: (705) 567-8368

TO  
 Kevin Kivi  
 Rio Algom Exploration  
 Suite 108  
 105 May Street S.  
 Thunder Bay, Ontario  
 P7C 1A9

DATE	February 28, 1991
CUSTOMER ORDER N°	Project: 8928
WORK ORDER N°	
DATE SUBMITTED	Various

TERMS

net 30 days 2.0% per month on overdue accounts

		Value	Amount
57	Gold Assays W.O. #T910087	7.00	399 00
57	Sample Prep. cert.# 43075-77 KL91.03	3.25	185 25
49	Gold Assays W.O. #T910087A	7.00	343 00
49	Sample Prep. cert.# 43083-84 KL91.04	3.25	159 25
	Sub-total.....		1086 50
	7 % GST # R121844088		76 06
	Amount due before March 30, 1991.....		1162 56

Please note: Accounts more than 45 days past due will lose any price discounts

*8928-58*  
*Kivi*  
*23 04 91*

*Thank You!*

**ACCURASSAY LABORATORIES LTD.**  
 CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS  
 Box 426, 3 Industrial Dr., Kirkland Lake  
 Ontario, Canada P2N 3J1

# INVOICE

# 791473

TEL.: (705) 567-3361 - FAX: (705) 567-8368

Kevin Kivi  
 Rio Algom Exploration  
 Suite 108  
 105 May Street S.  
 Thunder Bay, Ontario  
 P7C 1A9  
 TERMS

DATE	March 18, 1991
CUSTOMER ORDER N°	Project: 8925
WORK ORDER N°	
DATE SUBMITTED	Various

QUANTITY	DESCRIPTION	PRICE	AMOUNT
32	Gold Assays W.O. #T910095	7.00	224 00
32	Sample Prep. cert.# 43107-108 KL 91.018	3.25	104 00
34	Gold Assays W.O. #T910097	7.00	238 00
34	Sample Prep. cert.# 43121-122 KL 91.018	3.25	110 50
39	Gold Assays W.O. #T910106	7.00	273 00
39	Sample Prep. cert.# 43189-90 KL 91.5	3.25	126 75
1	Gold Reassay W.O. #T910106	8.00	8 00
29	Gold Assays W.O. #T910108	7.00	203 00
29	Sample Prep. cert.# 43198-99 KL 91.05	3.25	94 25
	Sub-total.....		1381 50
	7 % GST # R121844088		96 71
	Amount due before April 17, 1991.....		1478 21

Please note: Accounts more than 45 days past due will lose any price discounts

8925-58  
 Kivi  
 22/04/91

LF-1297

*Thank You!*

**THURASSAY LABORATORIES LTD.**

REGISTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS  
 Box 426, 3 Industrial Dr., Kirkland Lake  
 Ontario, Canada P2N 3J1

**INVOICE**

# 791481

TEL.: (705) 567-3361 - FAX: (705) 567-8368

TO Kevin Kivi  
 Rio Algom Exploration  
 Suite 108  
 105 May Street S.  
 Thunder Bay, Ontario  
 P7C 1A9  
 TERMS

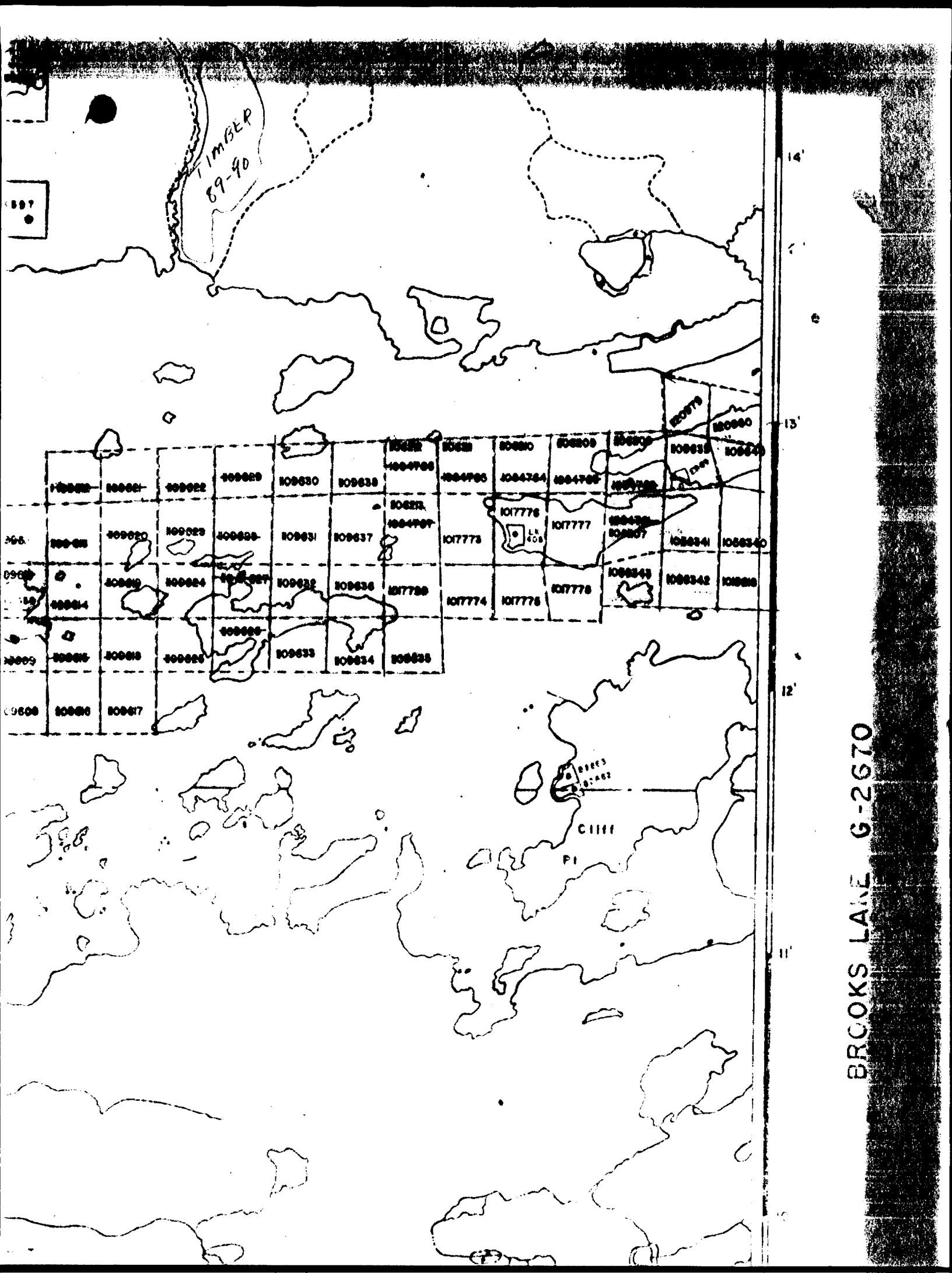
*8925-58*  
*KL 91-06-07*

DATE	March 28, 1991
CUSTOMER ORDER N°	Project: 8925
WORK ORDER N°	
DATE SUBMITTED	Various

QUANTITY	DESCRIPTION	PRICE	AMOUNT
36	Gold Assays W.O. #T910110	7.00	252 00
36	Sample Prep. cert.# 43206-07	3.25	117 00
38	Gold Assays W.O. #T910113	7.00	266 00
38	Sample Prep. cert.# 43214-15	3.25	123 50
13	Gold Assays W.O. #T910118	7.00	91 00
13	Sample Prep. cert.# 43224	3.25	42 25
31	Gold Assays W.O. #T910120	7.00	217 00
31	Sample Prep. cert.# 43227-28	3.25	100 75
31	Gold Assays W.O. #T910121	7.00	217 00
31	Sample Prep. cert.# 43229-30	3.25	100 75
1	Freight Bill-Excel Coach-00528432	22.25	22 25
1	Freight Bill-Excel Coach-00528435	17.95	17 95
1	Freight Bill-Excel Coach-00528436	23.85	23 85
1	Freight Bill-Greyhound-13130331432	12.05	12 05
1	Freight Bill-Excel Coach-00528437	28.95	28 95
1	Freight Bill-Excel Coach-00543686	23.30	23 30
1	Freight Bill-Excel Coach-00543688	14.95	14 95
1	Freight Bill-Excel Coach-00543691	14.95	14 95
1	Freight Bill-Excel Coach-00543689	12.95	12 95
	Sub-total.....		1698 45
	7 % GST # R121844088		118 89
	Amount due before April 27, 1991.....		1817 34

Please note: Accounts more than 15 days past due will lose any price discounts

*Thank You!*



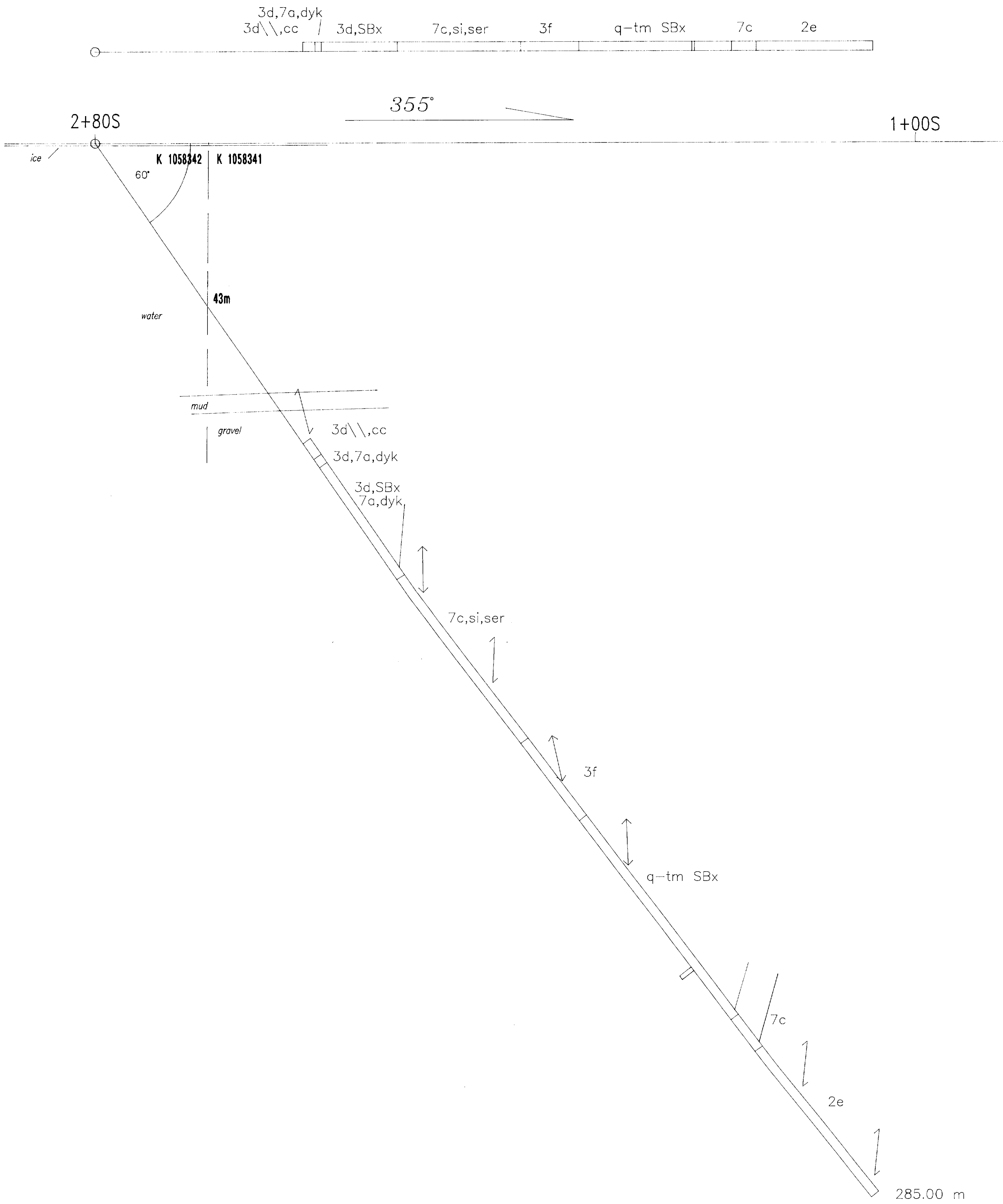
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TIMBER  
89-90

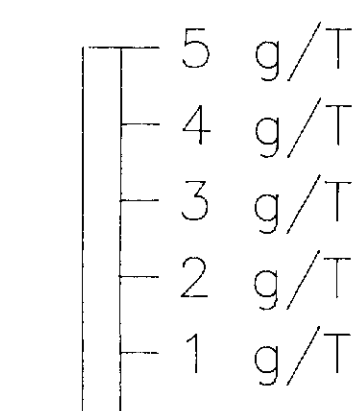
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14'  
13'  
12'  
11'

BROOKS LAKE G-2670



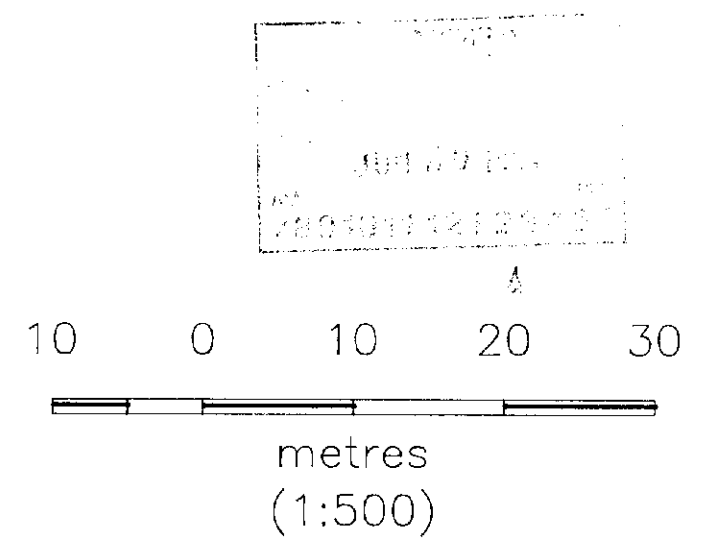
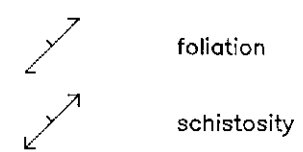
Assay Values (Gold)



(1 cm=1g/T)

al altered	fu fuchsite	q quartz	v vein
am amphiboles	gf graphite	q. eye quartz eye	vug vuggy
ank ankerite	hem hematite	q.c.v quartz-carbonate vein	
Au gold	kao kaolinized	q.v. quartz vein	
cc carbonatized	lim limonite	rust rust	
chl chlorite	lp lapilli	SBx solution breccia	
cpy chalcopyrite	m.dyk mafic dyke	ser sericite, sericitized	
ep epidote	mt magnetite	sil silicified	
f.dyk felsic dyke	po pyrrhotite	tm tourmaline	
fp feldspar	py pyrite	tr. trace	

SYMBOLS:



N.T.S. 52F/4

LEGEND:

7 FELSIC TO INTERMEDIATE INTRUSIVES	6 MAFIC INTRUSIVE ROCKS	5 CLASTIC METASEDIMENTS	2 INTERMEDIATE METAVOLCANICS	1 MAFIC METAVOLCANICS
7a diorite	6a gabbro	5a tuff-wacke	2a dacite	1a pillowed flow
7b leucodiorite	6b leucogabbro	5b conglomerate	2b crystal tuff	1b massive flow
7c quartz-diorite	6c pyroxenite	3 FELSIC METAVOLCANICS	2c crystal-lapilli tuff	1c tuff
7d feldspar porphyry	6d peridotite	3a rhyolite	2d tuff	1d lapilli tuff
7e quartz-feldspar porphyry	6e amphibolite	3b rhyolitic crystal tuff	2e lapilli tuff	1e pillow breccia
7f quartz porphyry		3c tuff	2f tuff breccia,	1f flow breccia
7g felsic		3d lapilli tuff	pyroclastic breccia	1f chlorite schist
7h quartz-chlorite-sericite schist		3e quartz-sericite schist	2g quartz-sericite-chlorite schist	
		3f chloritic felsic tuff/lapilli tuff		
		3g agglomerate		

Rio Algom Exploration Inc.  
 NORTHWESTERN ONTARIO  
 KAKAGI LAKE AREA, MARBANK OPTION  
 SECTION 18+00W  
 DDH KL-91-02





7c,si q-tm SBx  
 7c,ser kao | 7c,al kao | 7c,SBx 7c,al 2e 3f 3f,si | 3d,si q.v. | 3d,si 3d

1+80S

355°

0+30S

0+00

K 1058341

ice

water

mud

3d

3d,si

3d,si,q.v.

3d,si

3f,si

3f

2e

7c,al

7c,Bx

q-tm SBx

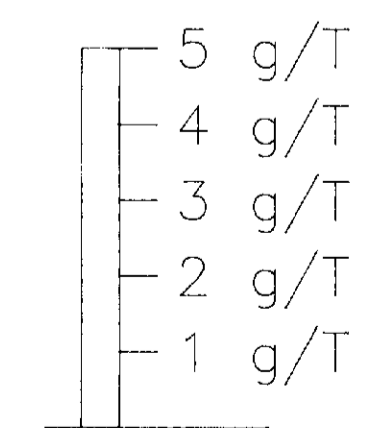
7c,al,kao

7c,si

7c,ser,kao

231.00 m

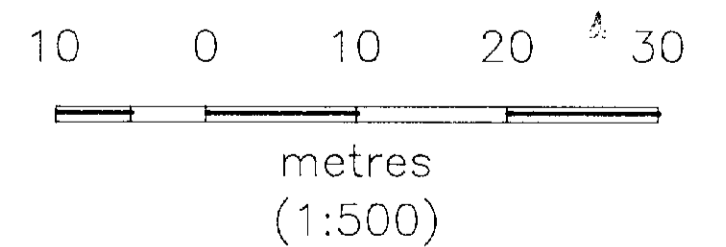
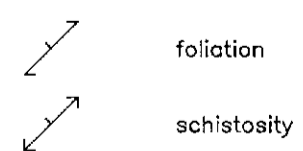
Assay Values (Gold)



(1 cm=1g/T)

al altered	fu fuchsite	q quartz	v vein
am amphiboles	gf graphite	q.ey quartz eye	vug vuggy
ank ankerite	hem hematite	q.c.v quartz-carbonate vein	
Au gold	kao kaolinized	q.v. quartz vein	
cc carbonatized	lim limonite	rust rust	
chl chlorite	lp lapilli	SBx solution breccia	
cpy chalcopyrite	m.dyk mafic dyke	ser sericite,sericitized	
ep epidote	mt magnetite	sil silicified	
f.dyk felsic dyke	po pyrrhotite	tm tourmaline	
fp feldspar	py pyrite	tr. trace	

SYMBOLS:



N.T.S. 52F/4

LEGEND:

7 FELSIC TO INTERMEDIATE INTRUSIVES	6 MAFIC INTRUSIVE ROCKS	5 CLASTIC METASEDIMENTS	2 INTERMEDIATE METAVOLCANICS	1 MAFIC METAVOLCANICS
7a diorite	6a gabbro	5a tuff-wacke	2a dacite	1a pillowed flow
7b leucodiorite	6b leucogabbro	5b conglomerate	2b crystal tuff	1b massive flow
7c quartz-diorite	6c pyroxenite	3 FELSIC METAVOLCANICS	2c crystal-lapilli tuff	1c tuff
7d feldspar porphyry	6d peridotite	3a rhyolite	2d tuff	1d lapilli tuff
7e quartz-feldspar porphyry	6e amphibolite	3b rhyolite	2e lapilli tuff	1e pillow breccia
7f quartz porphyry		3c rhyolite crystal tuff	2f tuff breccia, pyroclastic breccia	1f flow breccia
7g felsite		3d tuff	2g quartz-sericite-chlorite schist	
7h quartz-chlorite-sericite schist		3e lapilli tuff		
		3f quartz-sericite schist		
		3g chloritic felsic tuff/lapilli tuff		
		3g agglomerate		

Rio Algom Exploration Inc.

NORTHWESTERN ONTARIO

KAKAGI LAKE AREA, MARBANK OPTION

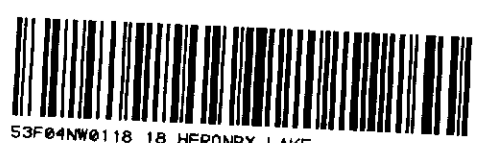
SECTION 12+00W

DDH KL-91-03

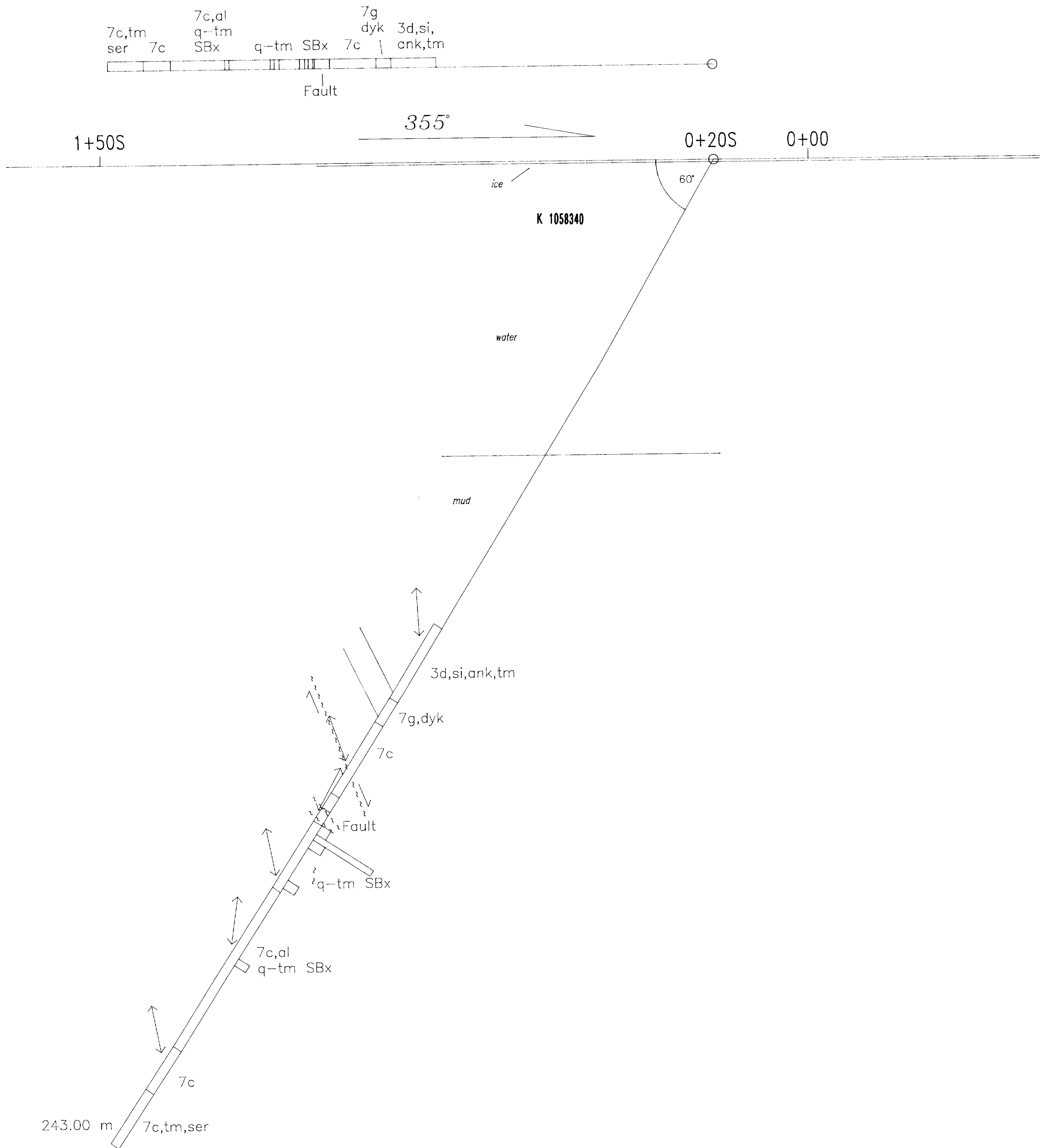
04/91

DREST

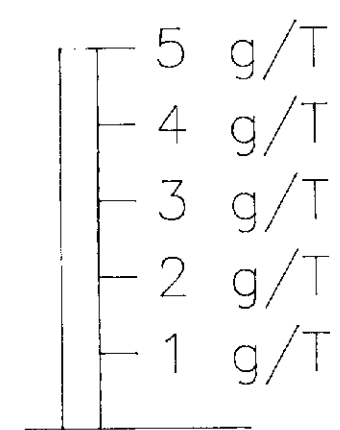
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53F44W118 18 HERONRY LAKE



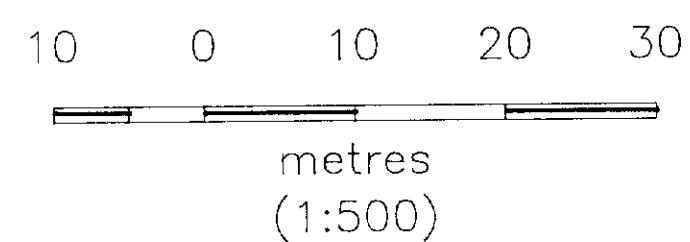
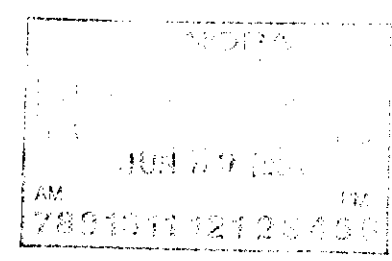
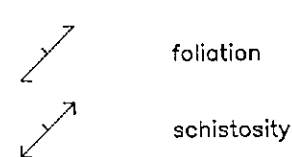
Assay Values (Gold)



(1 cm=1g/T)

al altered	fu fuchsite	q quartz	v vein
am amphiboles	gf graphite	q.ey quartz-ey	vug vuggy
ank ankerite	hem hematite	q.c.v quartz-carbonate vein	
Au gold	kao kaolinized	q.v. quartz vein	
cc carbonatized	lim limonite	rust rust	
chl chlorite	ip lapilli	SBx solution breccia	
cpy chalcopyrite	m.dyk mafic dyke	ser sericite,sericitized	
ep epidate	mt magnetite	sil silicified	
f.dyk felsic dyke	po pyrrhotite	tm tourmaline	
fp feldspar	py pyrite	tr. trace	

SYMBOLS:



N.T.S. 52F/4

LEGEND:

7 FELSIC TO INTERMEDIATE INTRUSIVES	6 MAFIC INTRUSIVE ROCKS	5 CLASTIC METASEDIMENTS	2 INTERMEDIATE METAVOLCANICS	1 MAFIC METAVOLCANICS
7a diorite	6a gabbro	5a tuff-wacke	2a dacite	1a pillowed flow
7b leucodiorite	6b leucogabbro	5b conglomerate	2b crystal tuff	1b massive flow
7c quartz-diorite	6c pyroxenite	3 FELSIC METAVOLCANICS	2c crystal-lapilli tuff	1c tuff
7d feldspar porphyry	6d peridotite	3a rhyolite	2d tuff	1d lapilli tuff
7e quartz-feldspar porphyry	6e amphibolite	3b rhyolitic crystal tuff	2e lapilli tuff	1e pillow breccia
7f quartz porphyry		3c tuff	2f tuff breccia, pyroclastic breccia	1f flow breccia
7g felsite		3d lapilli tuff	2g quartz-sericite-chlorite schist	
7h quartz-chlorite-sericite schist		3e quartz-sericite schist		
		3f chloritic felsic tuff/lapilli tuff		
		3g agglomerate		

Rio Algom Exploration Inc.

NORTHWESTERN ONTARIO

KAKAGI LAKE AREA, MARBANK OPTION

SECTION 9+00W

DDH KL-91-05

04/91

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DWG. KL-033





LEGEND:

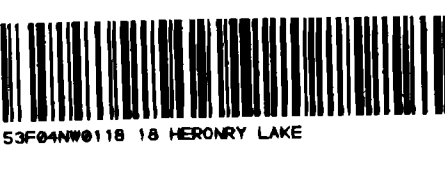
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|-------------------------------------|--------------------------|--------------------------------------|------------------------------|-----------------------|
| 7 felsic to intermediate intrusives | 8 mafic intrusives rocks | 5 clastic metasediments              | 2 intermediate metavolcanics | 1 mafic metavolcanics |
| 7a diorite                          | 8a gabbro                | 5a tuff-sand                         | 2a diorite                   | 1a pillow flow        |
| 7b neocandrite                      | 8b muscovite             | 5b conglomerate                      | 2b dyke tuff                 | 1b massive flow       |
| 7c quartz-diorite                   | 8c pyroxenite            | 3 felsic metadiorites                | 2c crystal tuff              | 1c tuff tuff          |
| 7d feldspar porphyry                | 8d peridotite            | 3a rhyolite                          | 2d tuff breccia              | 1d lapilli tuff       |
| 7e quartz-feldspar porphyry         | 8e amphibolite           | 3b rhyolite crystal tuff             | 2e lapilli tuff              | 1e pillow breccia     |
| 7f quartz porphyry                  |                          | 3c rhyolite                          | 2f tuff breccia              | 1f flow breccia       |
| 7g felsite                          |                          | 3d quartzic tuff                     | 2g quartz-sericite schist    | 1g chlorite schist    |
| 7h quartz-chlorite-sericite schist  |                          | 3e quartz-sericite schist            |                              |                       |
|                                     |                          | 3f chlorite felsic tuff/lapilli tuff |                              |                       |
|                                     |                          | 3g agglomerate                       |                              |                       |

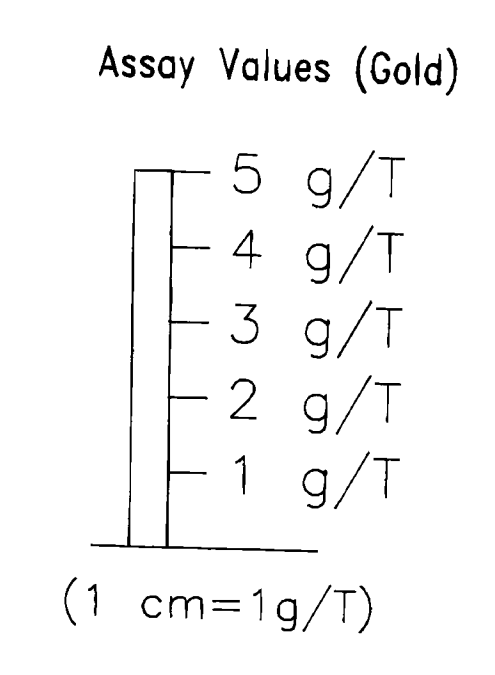
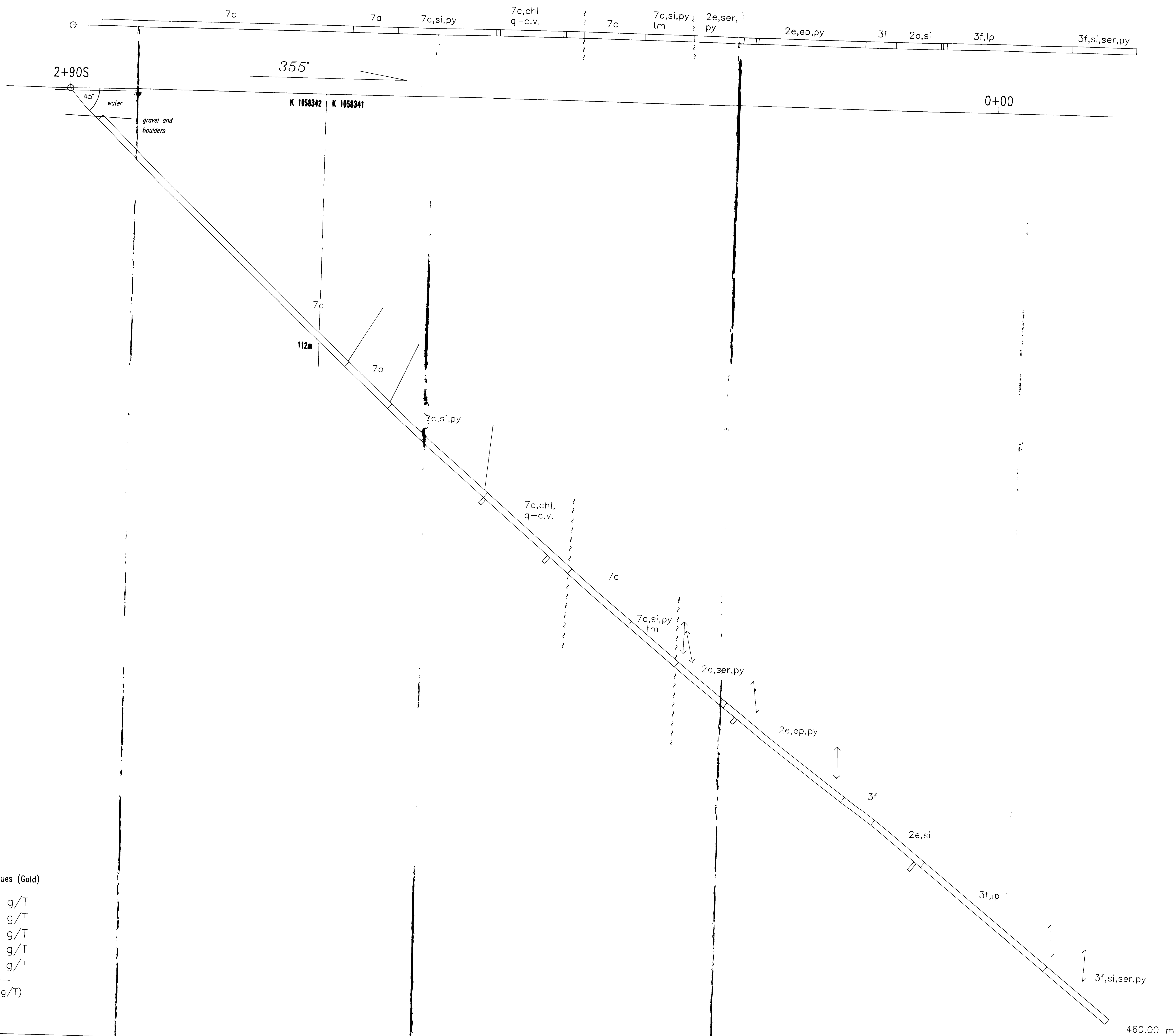
- |                   |                  |                              |           |
|-------------------|------------------|------------------------------|-----------|
| al altered        | fu fuchalte      | q quartz                     | v vein    |
| am amphibolite    | gf graphite      | q.eye quartz eye             | vug vuggy |
| ank ankite        | ham hematite     | q.c.v. quartz-carbonate vein |           |
| Au gold           | koo kaolinized   | q.v. quartz vein             |           |
| cc carbonatized   | lim limonite     | rust rust                    |           |
| chl chlorite      | lp lapilli       | SBx solution breccia         |           |
| chr chloropyrite  | m.dyk mafic dyke | ser sericite-sericitized     |           |
| ep epidote        | mt magnetite     | sil silicified               |           |
| f.dyk felsic dyke | py pyrrhotite    | tm tourmaline                |           |
| fp feldspar       | py pyrite        | tr. trace                    |           |

- Gold Assays
- Single sample  
0.5 g Au/T
- Intersection  
1.92 g/T  
/ 6.38 m
- 50 0 50 100 150  
metres

Rio Algom Exploration Inc.  
NORTHWESTERN ONTARIO  
KAKAGI LAKE AREA  
1991 DIAMOND DRILL  
PROGRAMME

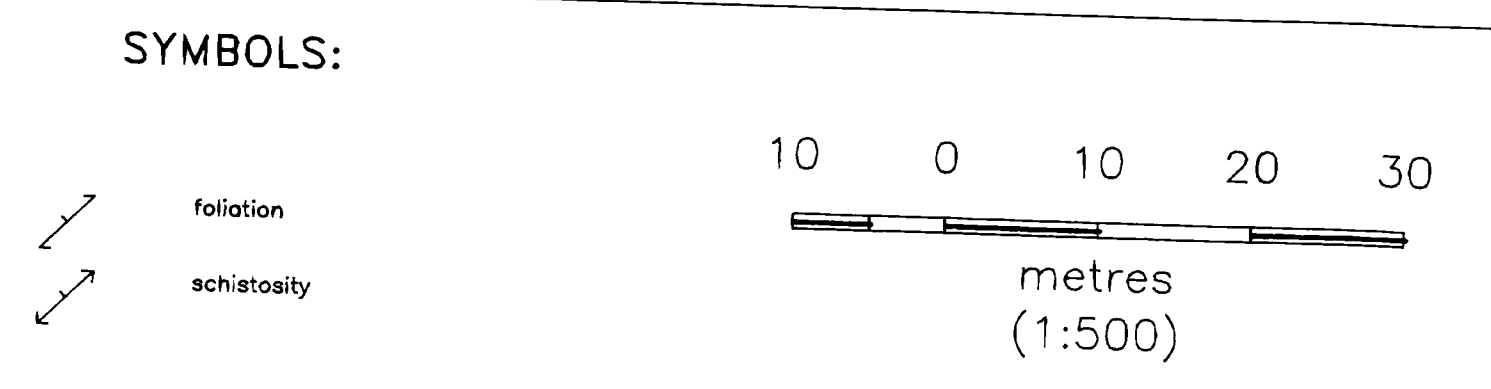
05/91 DRESI DWG. KL-063



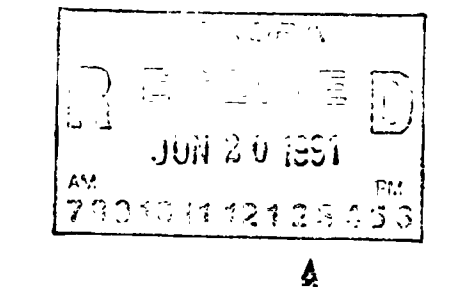


LEGEND:

7 FELSIC TO INTERMEDIATE INTRUSIVES 7a diorite 7b monzonite 7c quartz-diorite 7d feldspar porphyry 7e quartz-feldspar porphyry 7f quartz porphyry 7g felsite 7h quartz-chlorite-sericite schist	6 MAFIC INTRUSIVE ROCKS 6a gabbro 6b leucogabbro 6c pyroxenite 6d peridotite 6e amphibolite	5 CLASTIC METASEDIMENTS 5a tuff-wacke 5b diolite 5c conglomerate 5d tuff 5e rhyolite 5f rhyolitic crystal tuff 5g tuff 5h quartz-sericite schist 5i chlorite feldspar tuff/apillite tuff 5j conglomerate	2 INTERMEDIATE METAVOLCANICS 2a diolite 2b crystal tuff 2c crystal-lapilli tuff 2d tuff 2e lapilli tuff 2f tuff breccia 2g pyroclastic breccia 2h quartz-sericite-chlorite schist	1 MAFIC METAVOLCANICS 1a pillowed flow 1b massive flow 1c tuff 1d lapilli tuff 1e pillow breccia 1f flow breccia 1g chlorite schist	di altered am amphiboles ane ankerite Au gold cc carbonatized chl chlorite csp chalcocyprite ep epidote f-ox felsic dyke fp feldspar	fu fuchsite gf graphite hem hematite haz hastatized im ironstone lp lapilli m-ox mafic dyke mg magnetite po pyrrhotite py pyrite	q quartz c-ey quartz-ey c-c.v quartz-carbonate vein s.v quartz vein nat nat SBr solution breccia ser sericite-sericitized sil silicified tm tourmaline tr trace	v vein v-g vuggy
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N.T.S. 52F/4



Rio Algom Exploration Inc.  
NORTHWESTERN ONTARIO  
KAKAGI LAKE AREA, MARBANK OPTION  
SECTION 15+00W  
DDH KL-91-01  
04/91 DRESI DWG. KL-037