

**BRITISH COLUMBIA**  
**PROSPECTORS ASSISTANCE PROGRAM**  
**MINISTRY OF ENERGY AND MINES**  
**GEOLOGICAL SURVEY BRANCH**

PROGRAM YEAR: 2000/2001

REPORT #: PAP 00-16

NAME: ARNE BIRKELAND

## D. TECHNICAL REPORT

- One technical report to be completed for each project area.
- Refer to Program Regulations 15 to 17, pages 6 and 7.



Information on this form is confidential subject to the provisions of the Freedom of Information Act.

## SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Name ARNE BIRKELAND Reference Number 2000/2001 P50

### LOCATION/COMMODITIES

Project Area (as listed in Part A) DEER BAY MINFILE No. if applicable 092F 029

Location of Project Area NTS 092F/04 Lat 49° 14' Long 125° 35'

Description of Location and Access Property is at the head of Tolino Inlet. Access was by boat from Tolino, then 1 hour hike on re-habilitated trail.

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)

Paul Beaupre, Sonia Vergottini, trained field assistants on several Armax field programs

Main Commodities Searched For Cu Ni Co Pt Pd Au

Known Mineral Occurrences in Project Area Au-quartz veins, skarn Cu, Periphyry Cu-Mo prospects at head of Tolino Inlet

### WORK PERFORMED

1. Conventional Prospecting (area) Approximately 700 m x 700 m area
2. Geological Mapping (hectares/scale) 35 m x 20 m at main showing 1:150
3. Geochemical (type and no. of samples) 52 Rock chip samples taken - 26 samples analyzed
4. Geophysical (type and line km) Magnetometer survey - approximately 3 line km
5. Physical Work (type and amount) Three days trail rehabilitation - by ladder on cliff band
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

### Best Discovery

Project/Claim Name MAIN SHOWING - SUPER Z CLAMP Commodities Ni Cu Co Pt Pd Rh Au

Location (show on map) Lat. see Figure 4 - Report Long  Elevation 960 Ft

Best assay/sample type Channel Interval 2.7m of 2.4 g/t Pt 8.3 g/t Pd 3.4% Cu 0.7% Ni 0.4 g/t Au; 2.5m of 1.6 g/t Pt 5.2 g/t Pd 3.1% Cu 2.0% Ni 0.3 g/t Au

Description of mineralization, host rocks, anomalies Two massive sulphide bands outcrop over 30 m at the main showing. Mineralization is hosted in layered amphibolite that is genetically related to a large gabbro body outcropping to the west. Cu mineralization was found in outcrop and in float boulders at four other locations during the 2000 program. Three anomalies were detected by the magnetometer survey. The most significant indicator down dip magnetic Ni assemblage mineralization west and northwest of the main showing.

FEEDBACK: comments and suggestions for Prospector Assistance Program

**Report on  
Magnetometer Survey and Rock Chip Sampling**

**Deer Bay Property, Alberni M.D.**

**NTS: 092F/4, 092/F5**

**Lat: 49° 14'      Long: 125° 35'**

**Report By**

**Arne O. Birkeland, P. Eng.**

**Arnex Resources Ltd.**

**January 21, 2001**

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APPENDIX B: Analytical Procedures and Certificates – ALS Chemex Labs

APPENDIX C: Geochemical Data Sheets

APPENDIX D: Magnetometer Survey

APPENDIX E: Year 2000 Field Crew Daily Reports

## **Magnetometer Survey and Rock Chip Sampling Deer Bay Property, Alberni Mining Division**

### **1. SUMMARY**

Arnex Resources Ltd. conducted a grid magnetometer survey and rock chip geochemical exploration program on the Deer Bay Property during June to August, 2000. Twenty six rock chip samples were analyzed. Magnetometer readings were taken from approximately a 200 metre by 400 metre grid. SJ Geophysics of Delta BC processed the magnetic data. Three days of physical work was performed by rehabilitating the access trail to the Main Showing. The total cost of the year 2000 exploration program was \$16,485.

The Deer Bay Property lies on tidewater at the head of Tofino Inlet on west central Vancouver Island. An extensive logging road network provides cheap access to the area.

The property is underlain by West Coast Complex and metamorphosed Sicker group rocks. Massive sulphide mineralization averaging one to three metres in width is exposed over a strike length of 30 metres at the Main Showing. A second massive sulfide bar and disseminated sulphide mineralization is exposed over a 10 metre thickness in the footwall of the Main Showing. Two adjacent trenches sampled during the year 2000 program returned values of 3.4% Cu, 0.7% Ni, 2.4 g/t Pt, 8.3 g/t Pd over 2.7 metres and 3.1% Cu, 2.1% Ni, 1.6 g/t Pt, 4.8 g/t Pd over 2.5 metres. The Main Showing is hosted in a layered amphibolite thought to be related to a large gabbro sill complex that outcrops to the west of the Main Zone.

Rock chip sampling at the Main Showing demonstrates that near surface diamond drill targets are present that would test the width and grade of the zone down dip.

Rock chip sampling of gossanous outcrop and mineralized float boulders returned anomalous values from four other locations elsewhere on the property other than at the Main Showing. Additional work is warranted in these areas to attempt to discover additional showings similar to the Main Zone.

The magnetometer survey indicates a strong magnetic high exists to the west and northwest of the Main Zone Showing. It is interpreted that the high is due to an accumulation of magnetic Ni assemblage mineralization down dip from the Main Showing. Deeper drill targets are indicated. The magnetometer survey also indicates surface projections of the Main Zone on strike to the southeast.

A phased program of additional surface exploration work followed by diamond drilling is warranted.

## 2. INTRODUCTION

### 2.1. General

A 40 person-day field exploration program was carried out during the period June 25 to August 23, 2000. The fieldwork was conducted by a one to two-person crew (APPENDIX D, Field Crew Daily Reports). At the commencement of the program, six person-days of physical work were performed. The physical work consisted of trail rehabilitation by cutting underbrush and deadfall logs from the trail and building a log ladder at a 10 metre high cliff-band at approximately the 100 m elevation. The field exploration program consisted of conducting a grid magnetometer survey and representative rock chip sampling at the Main Showing and at target locations indicated by previously conducted soil geochemical and magnetometer geophysical surveys.

Three hundred and nineteen magnetometer readings were taken from an approximately 200 metre by 400 metre grid. Twenty six rock chip samples were analyzed from the Main Showing area and from other locations on the property. The rock chip samples were delivered by Arnex Resources Ltd. to ALS Chemex Labs in North Vancouver for processing and analysis (APPENDIX B, Analytical Procedures and Certificates). A total expenditure of \$16,485 was incurred as per APPENDIX A, Statement of Expenditures. Assessment work was filed on November 9, 2000 as Event Number 3157215. The work was not conducted under an Annual Work Approval Number as no surface disturbance was caused.

### 2.2. Property Tenure

The Deer Bay group consists of the Super 1,2 and Nick 1,2 Mineral claims that totals 22 units (Table 1, MEM Title Search by Owner, and Figure 2, Claim Location Map). The property is 100% owned by Arne Birkeland of North Vancouver and Peter Buckland of Boat Basin, B.C.

**Table 1, Tenure, Deer Bay Property**

Tenure Number	Claim Name	Owner Number	Map Number	Work Recorded To	Status	Mining Division	Units	Tag Number
200234	SUPER 1	102420 100%	092F04E	20031113	Good Standing 20031113	1 Alberni	6	97401
200235	SUPER 2	102420 100%	092F04E	20031113	Good Standing 20031113	1 Alberni	12	97402
331923	NICK 1	102420 100%	092F04E	20031113	Good Standing 20031113	1 Alberni	2	230419
332848	NICK 2	102420 100%	092F04E	20041113	Good Standing 20041113	1 Alberni	2	213889

### **2.3. Location, Access, Physiography, Land Status**

The Deer Bay Property is located in the Alberni Mining Division 25 km ENE of Tofino near the head of Tofino inlet on the west central coast of Vancouver Island (Figure 1). The center of the property is located at approximately 49° 14' north latitude and 125° 35' east longitude in NTS 092F/4,5. The Main Showing is located on a steep timbered hillside 0.5 km north of Similar Island at an elevation of approximately 295 m.

Access is by logging road (70 km from Tofino via Kennedy Lake Bridge) or by boat (30 km from Tofino). Access for the Year 2000 program was from Tofino by boat taking approximately one hour, then by approximately a one hour hike up the hillside on the rehabilitated trail

Steep incised drainages with rugged relief to approximately 800 metres (m) characterizes the physiography of the area. The northern portions of the claims have been logged in recent years, however, the Main Showing Area and magnetometer grid are covered by old growth forest. Climatic conditions are temperate.

The Deer Bay Property lies with lands classified as "Scenic Corridor" as dictated by the Clayquot Land Use Decision. Thus, the land status is designated as Special Management Zone (SMZ). The BC Ministry of Mines has issued an information brochure dated March 2000 dealing with mineral exploration and development on SMZs, which states in part the following:

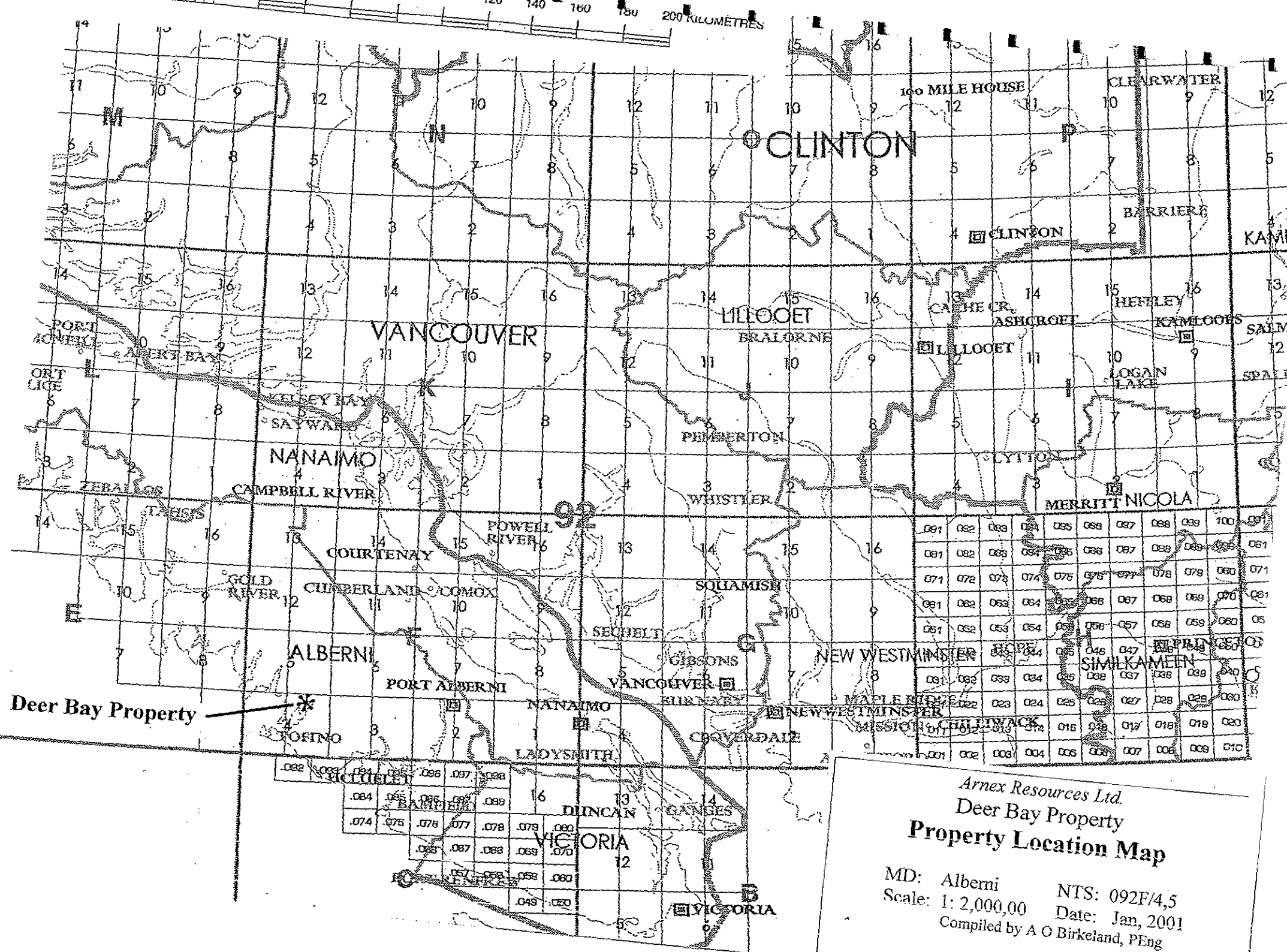
*Across British Columbia, lands outside of protected areas, including all SMZs, are open to mineral development, subject to applicable legislation. ... No new regulations apply for mineral exploration in SMZs. The MX Code is used consistently across all mineral lands in British Columbia.*

## **3. HISTORY**

Exploration activity on the Deer Bay property dates back to the late 1890's when hand cobbled ore was produced from shafts and adits dug on small Au-quartz veins along Tofino Creek. Between 1953 and 1984 the property was explored for its skarn and porphyry Cu-Mo potential associated with an Island Intrusive Stock at the head of Tofino Bay.

In 1984, Cominco examined the Cu-Ni-PGE Main Showing and optioned the property in 1985. Geologic mapping, soil sampling, limited geophysics and trenching and sampling at the Main Showing was carried out. Cominco concluded that "*PGE bearing Cu-Ni mineralization may have been emplaced as an immiscible liquid at the same time of injection of the ultrabasic host.*" A report by Mason, July 1986 states: "*While the*





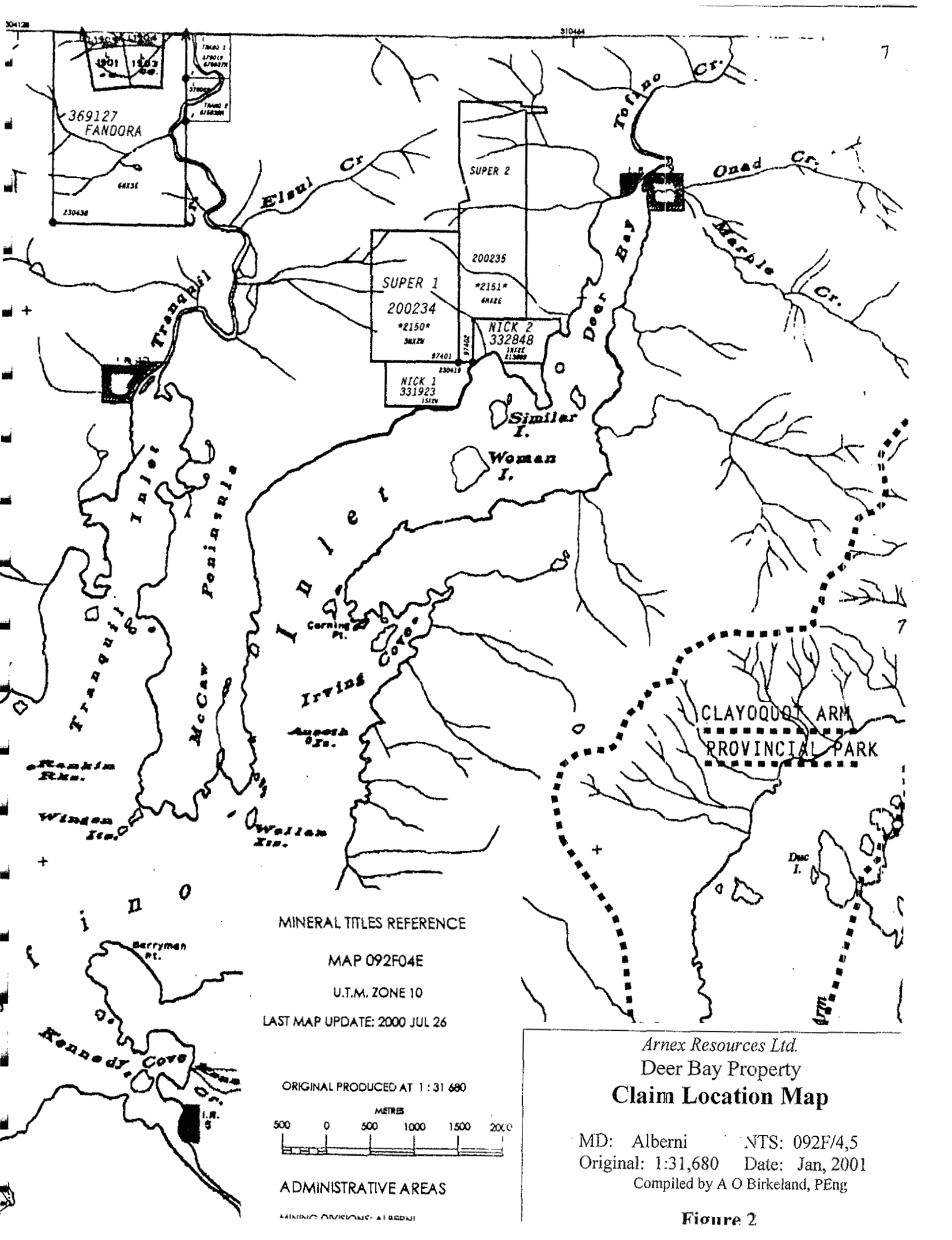
Deer Bay Property \*

.082	.083	.084	.085	.086	.087	.088	
.084	.085	.086	.087	.088			
.074	.075	.076	.077	.078	.079	.080	
	.083	.087	.088	.089	.090	.091	
	.087	.088	.089	.090	.091	.092	
	.087	.088	.089	.090	.091	.092	

.091	.092	.093	.094	.095	.096	.097	.098	.099	100	.091
.081	.082	.083	.084	.085	.086	.087	.088	.089	.090	.081
.071	.072	.073	.074	.075	.076	.077	.078	.079	.080	.071
.061	.062	.063	.064	.065	.066	.067	.068	.069	.070	.061
.051	.052	.053	.054	.055	.056	.057	.058	.059	.060	.051
.041	.042	.043	.044	.045	.046	.047	.048	.049	.050	.041
.031	.032	.033	.034	.035	.036	.037	.038	.039	.040	.031
.021	.022	.023	.024	.025	.026	.027	.028	.029	.030	.021
.011	.012	.013	.014	.015	.016	.017	.018	.019	.020	.011
.001	.002	.003	.004	.005	.006	.007	.008	.009	.010	.001

Arnex Resources Ltd.  
 Deer Bay Property  
**Property Location Map**  
 MD: Alberni      NTS: 092F/4,5  
 Scale: 1: 2,000,00      Date: Jan, 2001  
 Compiled by A O Birkeland, PEng

Figure 1



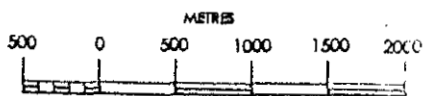
MINERAL TITLES REFERENCE

MAP 092F04E

U.T.M. ZONE 10

LAST MAP UPDATE: 2000 JUL 26

ORIGINAL PRODUCED AT 1 : 31 680



ADMINISTRATIVE AREAS

MINING DIVISIONS: ALBERNI

*Arnex Resources Ltd.*  
 Deer Bay Property  
**Claim Location Map**

MD: Alberni      NTS: 092F/4,5  
 Original: 1:31,680    Date: Jan, 2001  
 Compiled by A O Birkeland, PEng

**Figure 2**

*isolated outcrop (Main Showing) is only 30 m by 10 m, the associated rock types (altered ultramafics and anorthosite) and the Cu-Ni sulfide bands suggest that it is part of a much larger body... the property has both demonstrated grades and potential for significant tonnage.*" Additional work was recommended but was not carried out by Cominco and the property was returned to the vendor.

Reconnaissance geological mapping and geochemical surveys were conducted by Stag Explorations during 1988. Soil geochemistry was somewhat effective in delineating anomalous zones around the gabbro intrusion and at the Main Showing. The program also defined Cu-Ni-PGE anomalies elsewhere on the soil grid that coincide with soil anomalies detected by Cominco. In 1992, reconnaissance soil and moss mat stream sediment sampling along new road-cuts above the Main Showing detected anomalous Cu, Ni, Co, Au and PGM extending the prospective mineralized strike length up to 2 km beyond the areas previously explored.

Orientation soil and stream sediment sampling conducted in 1995 defined geochemical anomalies up-drainage from the Main Showing. These results confirm earlier reports of anomalies up-slope and indicate additional undiscovered mineralization is present. Petrographic examination of specimens of host rock from the Main Showing indicated that the mineralization is hosted in a zoned ultramafic intrusion complex and the occurrence was classified as belonging to the economically important Gabbroid Cu-Ni-Co deposit type.

Detailed mapping and engineering geology was carried out at the Main Showing in April of 1997. It was concluded that the massive sulphide band at the Main Showing is concordant with the foliation and the contact of the host amphibolite. The massive sulphides and footwall disseminated and stockwork zone strikes northwesterly and dips moderately to the southwest. The topography will allow two relatively convenient drill site locations on 15 metre sections lines. It was recommended that a fan of holes be drilled by a light-weight helicopter portable diamond drill on each section line to test the down-dip continuation of the mineralized zone that is exposed on surface.

A recent Debris Slide Channel was geologically mapped in 1997. The Debris Slide Channel is underlain by rocks belonging to the West Coast Crystalline Complex. In the area mapped, the lithology is dominated by layered gneissic rocks containing amphibolite layers, lenses and bands. Dark green chlorite rich bands and amphibolite dykes and sills are common within the gneissic rocks where they are in proximity to a large gabbro intrusion (a zoned ultramafic intrusive complex) to the west. The regional attitude of the foliated rocks is northwesterly striking and moderately southeasterly dipping.

## 4. GEOLOGY

### 4.1. Regional Geology

Vancouver Island lies within the Canadian Cordillera within terrain classified as Wrangellia. Central and western Vancouver Island is predominantly underlain by Paleozoic and Mesozoic strata intruded by Jurassic "Island" Intrusions and by Tertiary "Catface" Intrusions (Figure 3, Tectonic Assemblage Map).

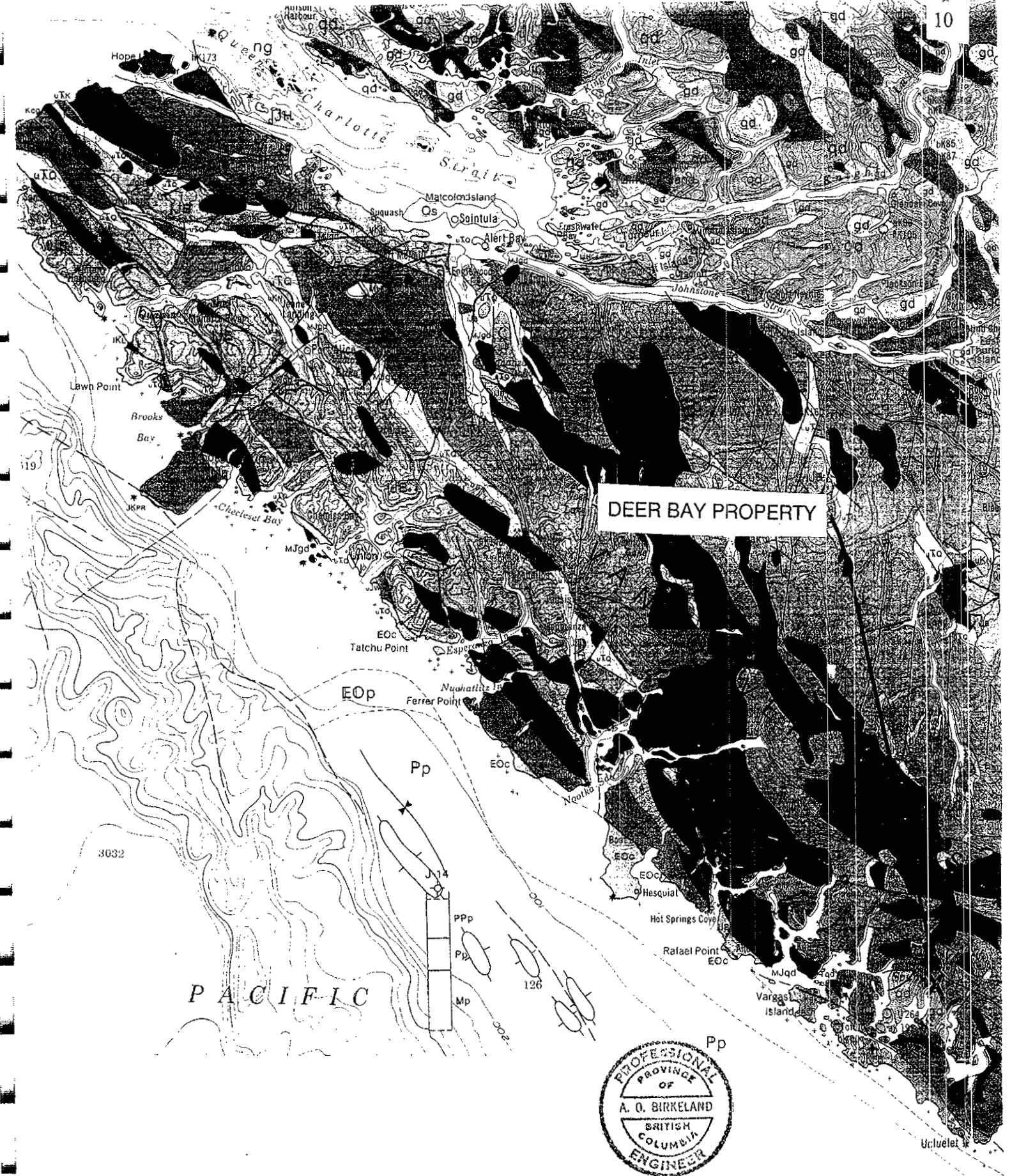
The Deer Bay Property is underlain by rocks of the West Coast Complex ("WC3") in the western and central portion of the claims and the Paleozoic "Sicker" Group to the east. The WC3 unit (Tectonic map unit Din) is a north trending diachronous belt of high-grade metamorphic rocks consisting of metamorphosed Paleozoic and Mesozoic strata and granitic to ultramafic intrusive complexes. The WC3 is interpreted to be partially re-melted subduction plate assemblage that has been uplifted and unroofed along the west coast of Vancouver Island. The WC3 hosts deformed gabbroic intrusions interpreted to be layered meta-ultramafic intrusion complexes.

### 4.2. Property Geology

The mineralization at the Main Showing area on the Deer Bay Property hosted in amphibolite. The country rock comprises quartzo-feldspathic gneiss interlayered with amphibolite bands. Petrography suggests that the layered mafic and felsic rocks are in part metamorphosed igneous magmatic differentiated sill (and to a lesser degree, dyke) counterparts.

All rocks in this area are metamorphosed to greenschist to amphibolite grade. The regional foliation generally strikes northwest to westerly with moderate dips to the southeast. Local outcrop scale isoclinal folding is present and tectonic stretching often form augen shaped amphibole bodies. Local slickensides indicate some fault movement is present, but the persistence of units along strike suggests fault offsets are minor in nature.

Of particular significance is a body of hornblende gabbro outcropping 400 m southwest of the Main Showing (Figure 5). The gabbro intrusion is at least approximately 500 m by 100 m in size, with additional float being found considerably further to the north and south. The gabbro intrusion has been determined to be anomalous in the Ni-Cu-Co-PGE-Ag-Au and related suite elements from previous sampling.



DEER BAY PROPERTY

PACIFIC



REGIONAL GEOLOGIC MAP		1:1,000,000 GEOLOGICAL ATLAS	
NORTHERN VANCOUVER ISLAND		SHEET 92	
Figure 3	Kilometres 25 0 25 50 75 Kilometres 		
	Miles 20 0 20 40 Miles 		

# STANDARDS FOR GEOLOGICAL TIME

EON	ERA	PERIOD	TIME-STRATIGRAPHIC		TIME-ROCK	
			SERIES	STAGE		
					*Ma	
PHANEROZOIC	JURASSIC	NEOCENE	VALANGINIAN		130	
			BERRIASIAN		136	
			UPPER	UPPER TITHONIAN	UPPER VOLGIAN	141
		PORTLANDIAN		LOWER VOLGIAN	146	
		KIMMERIDGIAN		151		
		MIDDLE	OXFORDIAN		157	
			CALLOVIAN		162	
			BATHONIAN		167	
			BAJOCIAN		172	
			TOARCIAN		178	
		LOWER	PLIENSCHACHIAN		183	
			SINEMURIAN		188	
			HETTANGIAN		190-195	
		TRIASSIC	UPPER	RHAETIAN		(205)
				NORIAN		
	KARNIAN					
	MIDDLE		LADINIAN		(215)	
			ANISIAN			
	LOWER		SPATHIAN			
			SMITHIAN			
			DIENERIAN			
			GRIESBACHIAN			
	PERMIAN	UPPER	OCHOAN	DZHULFIAN	230	
			GUADALUPIAN	KAZANIAN	240	
		LOWER	LEONARDIAN		ARTINSKIAN	265-268
			WOLFCAMPIAN		SAKMARIAN	280
					ASSELIAN	
	PENNSYLVANIAN	UPPER	VIRGILIAN	ORENBURGIAN	STEPHANIAN	290-295
			MISSOURIAN	GZHELIAN		
		MIDDLE	DESMOINESIAN	MOSCOVIAN	WEST-PHALIAN	310-315
			ATOKAN	BASHKIRIAN		
		LOWER	MORROWAN	NAMURIAN		U CARBONIFEROUS
	MISSISSIPPIAN	UPPER	CHESTERAN		VISEAN	325
MERAMECIAN						
LOWER		OSAGIAN		TOURNAISIAN	ARBOIFEROUS	335-340

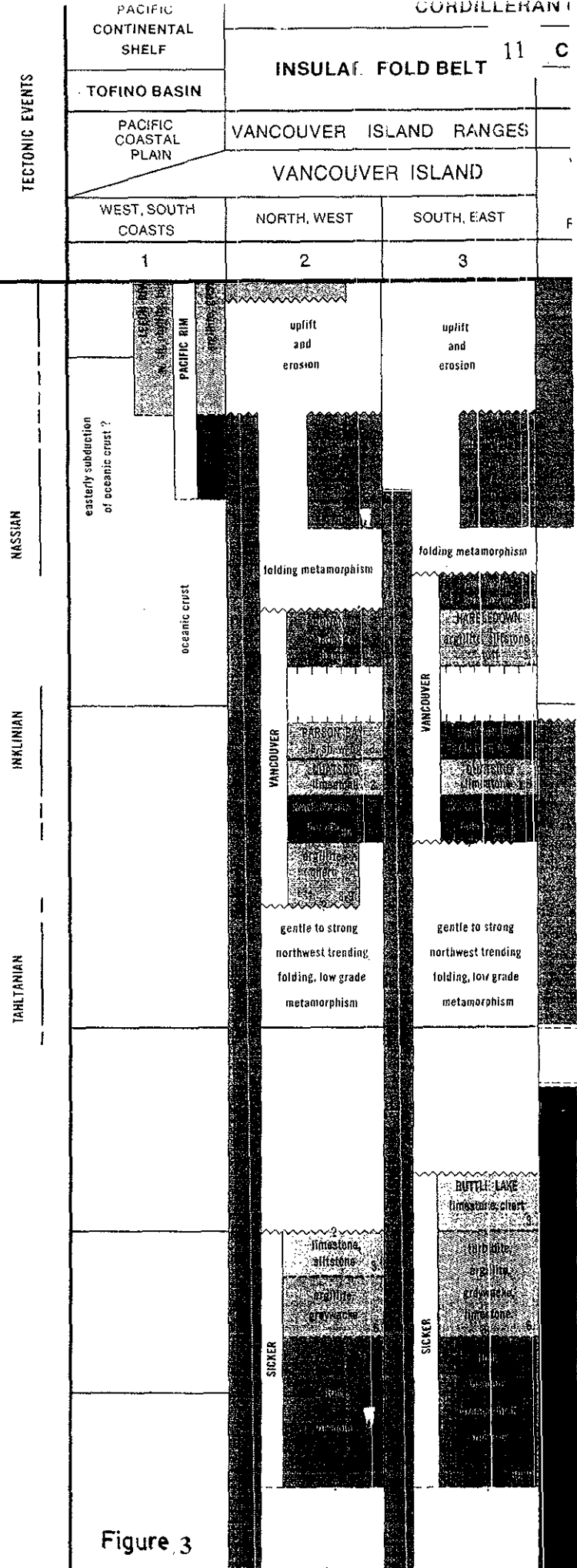


Figure 3

# STANDARDS FOR GEOLOGICAL TIME

EON	TIME		TIME-STRATIGRAPHIC		TIME-ROCK *Ma		
	ERA	PERIOD	SERIES	STAGE			
CENOZOIC	TERTIARY	QUATERNARY	RECENT				
			PLEISTOCENE		1.5-2		
			PLIOCENE		7		
		PALEOGENE	NEOGENE	MIOCENE		26	
				OLIGOCENE		37-38	
				EOCENE		53-54	
	PALEOCENE		65				
	CRETACEOUS		UPPER	SENONIAN	MAESTRICHTIAN		70
					CAMPANIAN		
		SANTONIAN			76		
		CONIACIAN			82		
		TURONIAN			88		
		LOWER	ALBIAN	CENOMANIAN		94	
				ALBIAN		100	
				APTIAN		106	
NEOCOMIAN				BARREMIAN		112	
				HAUTERIVIAN		118	
	VALANGINIAN		124				
	BERRIASIAN		130				
PALEOGENE	UPPER TITHONIAN		136				
	UPPER VOLGIAN		141				
MESOZOIC	PORTLANDIAN						
	LOWER VOLGIAN						

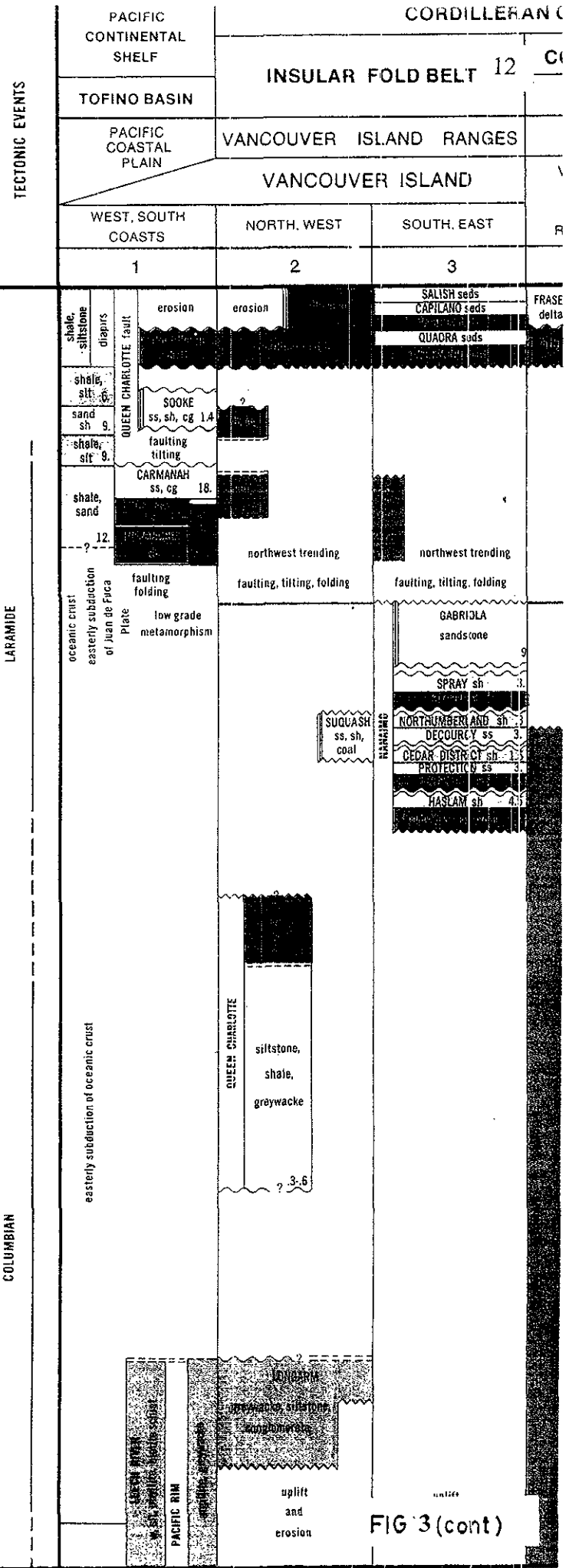


FIG 3 (cont)

### **4.3. Mineralization**

At the Main Showing, the principle zone containing semi-massive to massive sulphide mineralization is well exposed discontinuously over approximately a 30 m strike length over widths averaging 1-3 m (Figure 4). The banded Ni and Cu rich sulphides are underlain by a 10 m thick exposure of disseminated footwall mineralization containing a second 0.5 to 1 m semi-massive sulphide band. Banded sulphide layers are concordant to foliation and appear to strike northwesterly and dip moderately southeasterly conforming to the regional structural trend.

The upper semi to massive sulphide zone consists of an upper and lower violarite – millerite – pyrite band containing an interlayered semi-massive to massive pyrite-chalcopyrite band. Individual bands are approximately 1 m thick. Sulfide textures within the Ni rich amphibolite hosted upper and lower bands often occur as sulphide intergrowths, suggestive as being meta-magmatic style mineralization. The Cu rich pyrite – chalcopyrite layer is more massive with Fe content commonly 10% - 25%.

Disseminated and vein (stockwork?) style pyrite - chalcopyrite and minor violarite – millerite mineralization is present in the footwall amphibolite (and minor gneiss) rocks. Footwall rocks contain black chlorite and mottled muscovite – talc? blebs. This texture may correlate to “Salt and Pepper Rock” footwall alteration as described in classical Ni - Cu – PGE magmatic deposits at Stillwater, Sudbury and elsewhere.

## **5. ROCK CHIP SAMPLE PROGRAM**

### **5.1. Rock Chip Sample Results - Main Showing Area**

Rock Chip Analytical Results, Rock Chip Assay Results and Weighted Assay Intervals are tabulated as Tables 2, 3 and 4 respectively. Analytical Procedures and Certificates are contained in APPENDIX B. Geochemical Data Sheets containing sample descriptions is appended as APPENDIX C.

Seventeen representative rock chip channel samples were taken at the Main Showing as illustrated in Figure 4. The best weighted interval from representative rock chip channeling from old hand-blasted trenching of the upper principle sulphide zone assayed 3.4% Cu, 0.7% Ni, 2.4 g/t Pt and 8.3 g/t Pd over a 2.7 m width. The next trench to the southeast returned 3.1% Cu, 2.1% Ni, 1.6 g/t Pt and 5.2 g/t Pd over 2.5 m. The furthest trench to the north carried 2.4% Ni, 1.8 g/t Pt and 4.8 g/t Pd from poorly exposed rubble. The furthest interval to the south on the faulted offset of the main band assayed 2.8% Cu, 0.4% Ni, 0.9 ppb Pt and 3.4 ppb Pd from outcrop extending into the underbrush. The



Main Showing Area

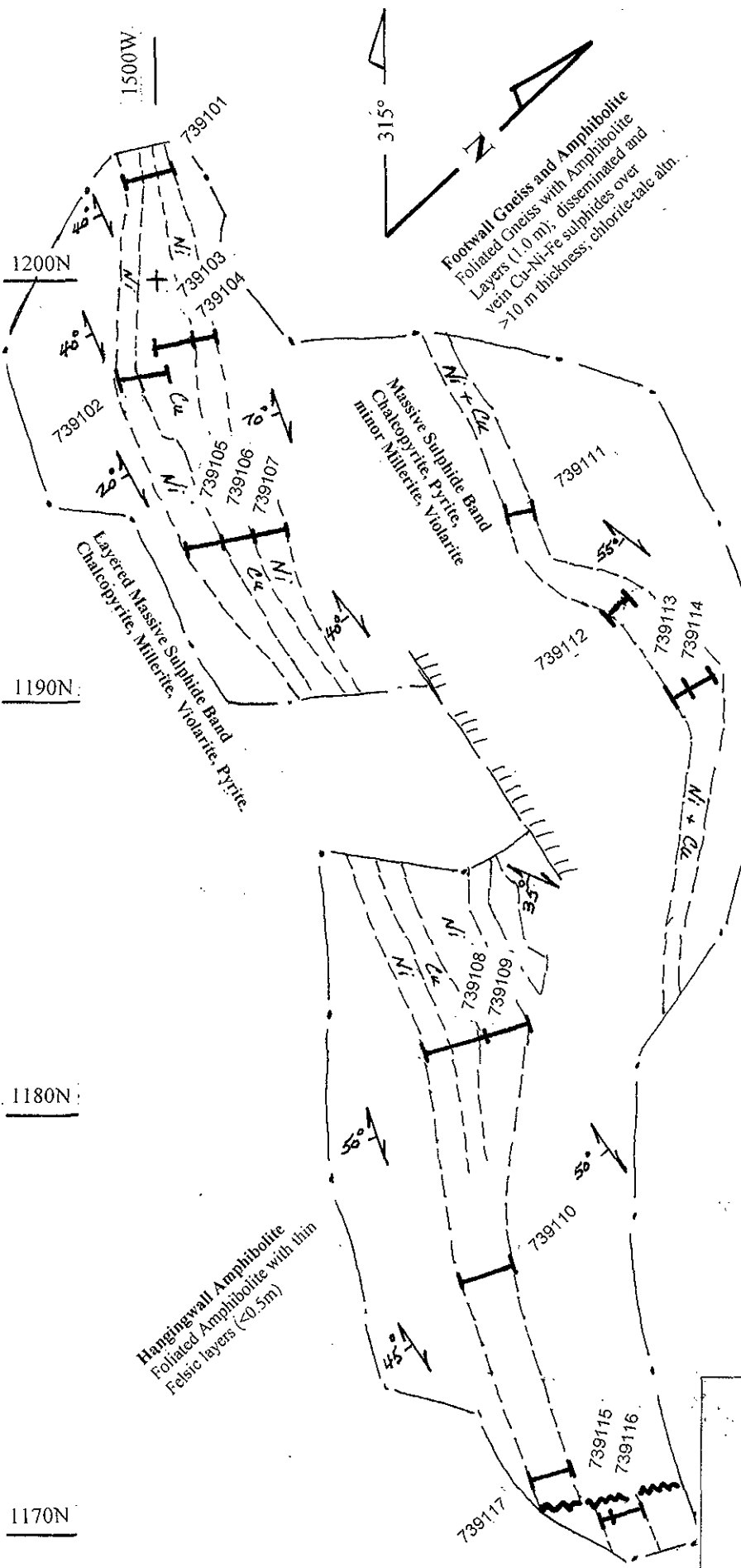
No.	Width m	Pt g/t	Pd g/t	Cu %	Ni %	Au g/t
739101	1.2	1.82	4.76	0.14	2.42	0.12
739102	1.2	2.52	7.70	3.53	0.98	0.42
739103	1.0	3.36	12.75	4.37	0.50	0.54
739104	0.5	0.21	0.70	0.87	0.39	0.09
739105	1.0	0.98	2.80	1.79	0.48	0.21
739106	0.7	2.10	5.88	7.66	0.82	0.48
739107	0.8	1.96	7.70	0.86	5.10	0.30
739108	1.5	1.05	4.41	2.77	1.40	0.27
739109	1.0	0.84	3.08	1.03	1.79	0.12
739110	1.4	1.26	6.16	0.92	3.06	0.18
739111	0.4	<0.07	1.05	0.55	0.23	0.06
739112	0.4	0.14	0.84	0.15	0.33	<0.06
739113	0.4	0.70	5.74	7.03	0.28	0.78
739114	0.6	0.21	0.63	0.22	0.04	<0.03
739115	0.2	0.35	1.75	0.35	0.56	0.12
739116	0.9	0.98	3.78	3.35	0.34	2.46
739117	1.0	0.14	0.28	0.13	0.15	<0.03

Weighted Assay Intervals

Table 1

Main Showing Area

No.	Width m	Pt g/t	Pd g/t	Cu %	Ni %	Au g/t
739102	1.2	2.52	7.70	3.53	0.98	0.42
739103	1.0	3.36	12.75	4.37	0.50	0.54
739104	0.5	0.21	0.70	0.87	0.39	0.09
Interval	2.7	2.40	8.27	3.35	0.69	0.40
739105	1.0	0.98	2.80	1.79	0.48	0.21
739106	0.7	2.10	5.88	7.66	0.82	0.48
739107	0.8	1.96	7.70	0.86	5.10	0.30
Interval	2.5	1.61	5.23	3.13	2.05	0.31
739108	1.5	1.05	4.41	2.77	1.40	0.27
739109	1.0	0.84	3.08	1.03	1.79	0.12
Interval	2.5	0.97	3.88	2.07	1.56	0.21
739113	0.4	0.70	5.74	7.03	0.28	0.78
739114	0.6	0.21	0.63	0.22	0.04	<0.03
Interval	1.0	0.41	2.67	2.94	0.14	0.31
739115	0.2	0.35	1.75	0.35	0.56	0.12
739116	0.9	0.98	3.78	3.35	0.34	2.46
Interval	1.1	0.87	3.41	2.80	0.38	2.03



Arnex Resources Ltd.

Deer Bay Property

Rock Chip Sampling

Main Showing

MD: Alberni

NTS: 092F/4,5

Scale: 1: 150

Date: Jan, 2001

Compiled by A O Birkeland, PEng

Figure 4

Table 2

Rock Chip Analytical Results - Selected Elements  
Deer Bay Property

SAMPLE DESCRIPTION	Au ppb	Ag ppm	As ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Mg %	Mn ppm	Ni ppm	Pb ppm	Ti %	Zn ppm
739101	105	<1	30	60	1335	90	1285	19.55	3.67	1200	26400	<5	0.04	35
739102	490	7	80	20	1070	510	36500	24	1.23	350	11030	<5	0.02	35
739103	535	9	90	<20	1330	360	44500	20.4	2.13	370	5330	<5	0.05	30
739104	90	1	<10	20	115	10	9000	18.3	5.39	1870	4230	<5	0.06	20
739105	200	4	<10	<20	345	630	18480	10.45	4.05	360	5020	5	0.12	25
739106	550	14	<10	<20	585	560	>50000	20.8	2.92	290	8720	<5	0.08	20
739107	320	3	<10	<20	1450	330	8810	24.3	2.44	580	>50000	<5	0.04	70
739108	265	5	10	120	380	430	28700	11.7	2.37	270	15820	<5	0.04	105
739109	150	1	30	<20	560	570	10760	12.5	3.5	320	20600	<5	0.07	140
739110	370	2	240	<20	580	70	9370	21.7	1.02	590	34800	<5	0.06	65
739111	0.06	1.4	<2	<10	104	289	5550	4.94	2.35	355	2320	4	0.05	30
739112	<0.06	1	<2	10	95	17	1515	6.4	2.97	635	3290	2	0.05	46
739113	0.78	14	38	<10	225	65	>10000	>15.00	1.36	540	2210	2	0.03	218
739114	<0.03	1.4	2	<10	45	117	2220	4.53	1.39	465	426	<2	0.09	42
739115	0.12	1.4	32	<10	141	23	3540	>15.00	0.98	585	5620	10	0.06	30
739116	2.46	7.2	102	<10	289	35	>10000	14.85	0.51	295	3370	8	0.04	114
739117	<0.03	0.2	2	10	23	18	1080	4.74	0.97	510	1515	2	0.12	42
739118	<0.03	0.4	2	<10	5	23	583	4.41	0.43	205	25	<2	0.04	18
739119	3.48	1.6	106	20	13	48	170	12.7	0.44	315	8	2	0.03	20
739120	0.06	0.2	2	50	21	5	91	5.62	0.18	2900	2	<2	<0.01	46
739121	<0.06	<0.2	<2	40	16	44	67	4.49	1.13	625	9	2	0.05	72
739122	<0.06	<0.2	<2	<10	19	13	74	5.27	1.39	465	3	2	0.14	34
739123	<0.03	0.6	14	130	13	9	22	6.2	0.21	6170	6	2	0.01	148
739124	0.36	0.6	22	40	14	45	250	10.15	0.21	415	5	2	0.03	16
739125	0.03	0.4	4	10	5	57	381	6.69	0.49	340	38	<2	0.05	20
739126	0.99	1.2	268	30	18	42	382	14.15	0.25	715	5	2	0.03	18

Table 3

Rock Chip Assay Results - Selected Elements  
Deer Bay Property - Main Showing Area

SAMPLE DESCRIPTION	Au g/tonne	Pt g/tonne	Pd g/tonne	Rh g/tonne	Cu %	Ni %	Co %	S %	Fe %	As %	Pb %	Zn %
739101	0.12	1.82	4.76	0.12	0.135	2.42	0.13	14.7	19.8	0.01	<0.02	<0.01
739102	0.42	2.52	7.7	0.12	3.53	0.98	0.098	18.8	25.1	<0.01	<0.02	<0.01
739103	0.54	3.36	12.75	0.18	4.37	0.5	0.126	26.1	22.2	<0.01	<0.02	<0.01
739104	0.09	0.21	0.7	<0.03	0.87	0.385	0.012	4.66	18.1	<0.01	<0.02	<0.01
739105	0.21	0.98	2.8	0.06	1.79	0.475	0.032	6.23	13	<0.01	<0.02	<0.01
739106	0.48	2.1	5.88	0.18 (7.89)	7.66	0.815	0.056	18.1	22.5	<0.01	<0.02	<0.01
739107	0.3	1.96	7.7	0.18	0.855	5.1	0.138	25.3	24.7	<0.01	<0.02	0.01
739108	0.27	1.05	4.41	0.12	2.77	1.4	0.034	9.42	13	<0.01	<0.02	0.01
739109	0.12	0.84	3.08	0.06	1.03	1.79	0.05	8.85	14.6	<0.01	<0.02	0.01
739110	0.18	1.26	6.16	0.06	0.915	3.06	0.056	16.2	22.9	0.02	<0.02	0.01
739111	0.06	<0.07	1.05	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739112	<0.06	0.14	0.84	<0.06	-----	-----	-----	-----	-----	-----	-----	-----
739113	0.78	0.7	5.74	<0.06	7.03	0.28	0.028	21.7	23.1	<0.01	<0.02	0.03
739114	<0.03	0.21	0.63	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739115	0.12	0.35	1.75	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739116	2.46	0.98	3.78	0.06	3.35	-----	-----	-----	-----	-----	-----	-----
739117	<0.03	0.14	0.28	<0.03	0.125	0.15	0.002	0.69	5.4	<0.01	<0.02	<0.01
739118	<0.03	<0.07	<0.07	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739119	3.48	<0.07	<0.07	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739120	0.06	<0.07	<0.07	<0.03	0.015	<0.005	0.008	<0.01	15.7	<0.01	<0.02	0.01
739121	<0.06	<0.14	<0.14	<0.06	-----	-----	-----	-----	-----	-----	-----	-----
739122	<0.06	<0.14	<0.14	<0.06	-----	-----	-----	-----	-----	-----	-----	-----
739123	<0.03	<0.07	<0.07	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739124	0.36	<0.07	<0.07	<0.03	0.035	<0.005	0.002	9.06	12	<0.01	<0.02	<0.01
739125	0.03	<0.07	<0.07	<0.03	-----	-----	-----	-----	-----	-----	-----	-----
739126	0.99	<0.07	<0.07	<0.03	0.045	<0.005	<0.002	11.9	16.2	0.01	<0.02	<0.01

Table 4

**Weighted Assay Intervals - Selected Elements  
Deer Bay Property - Main Showing Area**

No.	Width m	Pt g/t	Pd g/t	Cu %	Ni %	Au g/t	Pt mxg	Pd mxg	Cu mxg	Ni mxg	Au mxg
739102	1.2	2.52	7.70	3.53	0.98	0.42	3.02	9.24	4.24	1.18	0.50
739103	1.0	3.36	12.75	4.37	0.50	0.54	3.36	12.75	4.37	0.50	0.54
739104	0.5	0.21	0.70	0.87	0.39	0.09	0.11	0.35	0.44	0.19	0.05
Interval	2.7	2.40	8.27	3.35	0.69	0.40	6.49	22.34	9.04	1.87	1.09
739105	1.0	0.98	2.80	1.79	0.48	0.21	0.98	2.80	1.79	0.48	0.21
739106	0.7	2.10	5.88	7.66	0.82	0.48	1.47	4.12	5.36	0.57	0.34
739107	0.8	1.96	7.70	0.86	5.10	0.30	1.57	6.16	0.68	4.08	0.24
Interval	2.5	1.61	5.23	3.13	2.05	0.31	4.02	13.08	7.84	5.13	0.79
739108	1.5	1.05	4.41	2.77	1.40	0.27	1.58	6.62	4.16	2.10	0.41
739109	1.0	0.84	3.08	1.03	1.79	0.12	0.84	3.08	1.03	1.79	0.12
Interval	2.5	0.97	3.88	2.07	1.56	0.21	2.42	9.70	5.19	3.89	0.53
739113	0.4	0.70	5.74	7.03	0.28	0.78	0.28	2.30	2.81	0.11	0.31
739114	0.6	0.21	0.63	0.22	0.04	<0.03	0.13	0.38	0.13	0.02	0.00
Interval	1.0	0.41	2.67	2.94	0.14	0.31	0.41	2.67	2.94	0.14	0.31
739115	0.2	0.35	1.75	0.35	0.35	0.12	0.07	0.35	0.07	0.07	0.02
739116	0.9	0.98	3.78	3.35	0.35	2.46	0.88	3.40	3.02	0.32	2.21
Interval	1.1	0.87	3.41	2.80	0.35	2.03	0.95	3.75	3.09	0.39	2.24

results from sampling from the north and south trenches indicate the Main Zone is "open" extending into the bush above and below the outcrop showing.

The best interval from the pyrite – chalcopyrite footwall sulphide layer 5 m below the upper main zone assayed 2.9 % Cu, 0.14% Ni, 0.4 g/t Pt and 2.7 g/t Pd over 1.0 m.

Previous sampling (Birkeland, 1997) of disseminated and vein-stockwork sulphide mineralization from the footwall altered amphibolite host rock returned values of up to 2.6% Cu, 1380 ppb Pt and 5270 ppb Pt over 0.5 m. Sampling (Miller-Tait, 1998) of altered chlorite – muscovite – talc? footwall amphibolite containing relatively minor amounts of visible sulphides has returned values of up to 6350 ppm Cu, 1920 ppm Ni, 110 ppb Pt and 5170 ppb Pd over 2.0 m demonstrating PGE values are also present in the footwall even in areas of relatively low sulphide content.

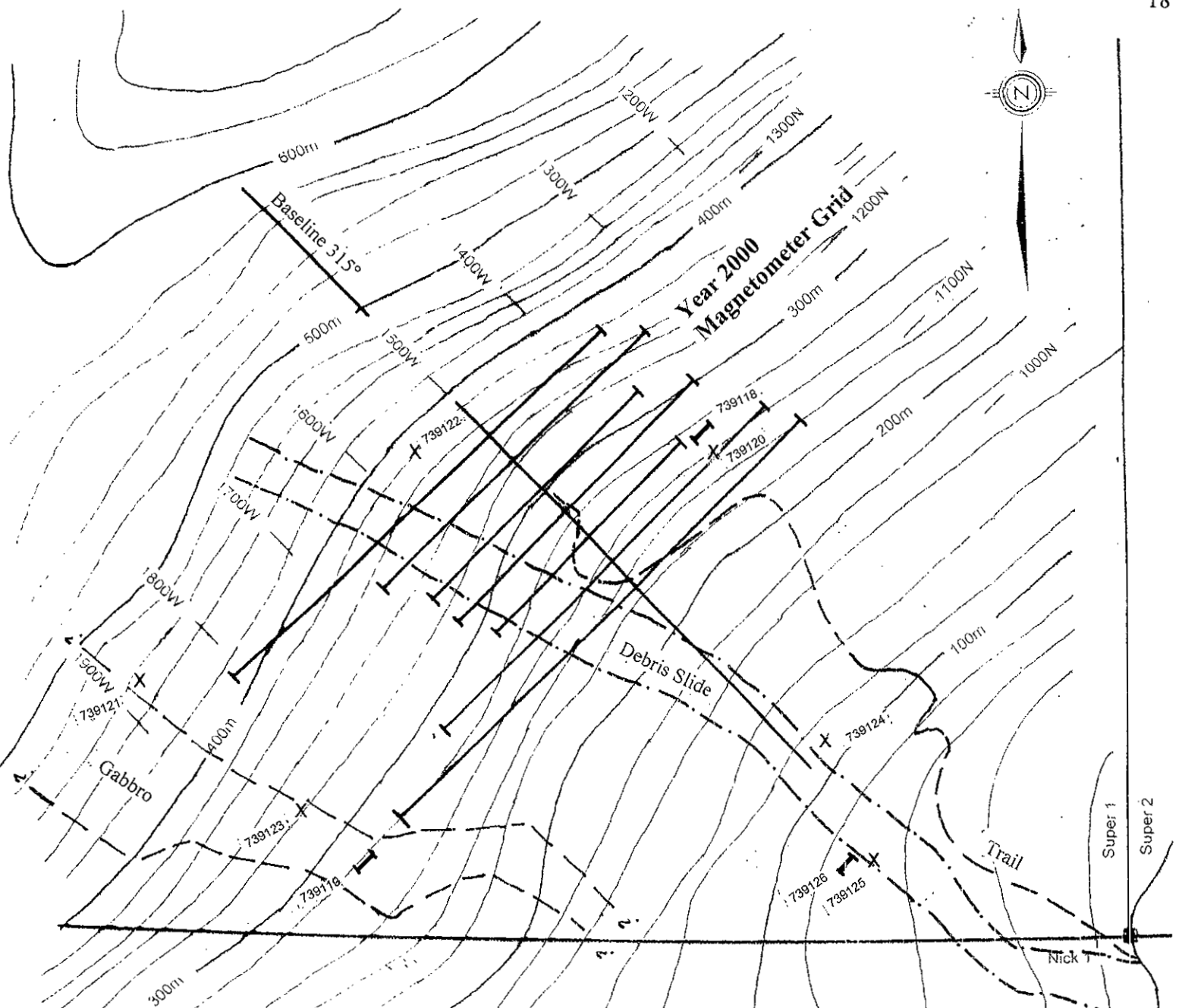
## 5.2. Property Scale Rock Chip Sampling

Thirty five rock chip samples were taken from various locations around the magnetometer grid on the property other than those taken at the Main Showing area. Most rocks were cut and all were examined by binocular microscope. Only nine samples had sufficient sulphides or alteration to warrant assaying. Analytical and Assay results for selected elements for the nine samples analyzed are contained in Tables 2 and 3. Analytical Procedures and Certificates are contained in Appendix B. Results are plotted as Figure 5.

Pyrite and disseminated chalcopyrite occur in a gossanous outcrop exposure at 1150N, 1380W. Sample number 739118 from a 1.4 m channel sample contained 582 ppm Cu and elevated (25ppm) Ni. The mineralization is hosted in a green and gray meta-intrusive sill. An angular float boulder approximately 20 m downhill contained a massive pyrite band 3 cm in thickness. The pyrite is hosted in a mafic and felsic layered rock similar to that at 739118. Sample 739120 from the float boulder ran 91 ppm Cu. Based on the projection of a magnetic feature trending from the Main Showing area, and the occurrence of sulphide mineralization in host rocks similar to the Main Showing, another mineralized showing area is suspected to exist in this area. Detailed geologic mapping and additional rock chip sampling in this area is warranted.

Disseminated pyrite (5-10%) was found hosted in altered diorite at sample location 739119 at 1110N, 1850W. The pyrite occurs as coarse euhedral cubes and is probably recrystallized. The diorite was found to contain 170 ppm Cu, 3.5 ppb Au and 1.6 ppm Ag. The diorite is a phase of the gabbro sill complex that outcrops west of the Main Zone.

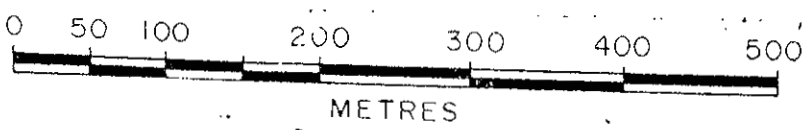
Sample number 739123 is from a sub-angular float boulder found approximate 50 m up slope from 739119. Rod shaped subhedral manganese crystal intergrowths are contained in massive ankerite. Sample 739123 contained 6170 ppm Mn and is considered to be a contact metamorphosed skarn occurrence at the eastern contact of the gabbro. Sample 739121 also comes from the eastern contact of the Gabbro and is



**Rock Chip Analytical Results**

Selected Elements

SAMPLE #	Pt g/t	Pd g/t	Rh g/t	Cu ppm	Ni ppm	Co ppm	Au ppb	Ag ppm
739118	<0.07	<0.07	<0.03	583	25	5	<0.03	0.4
739119	<0.07	<0.07	<0.03	170	8	13	3.48	1.6
739120	<0.07	<0.07	<0.03	91	2	21	0.06	0.2
739121	<0.14	<0.14	<0.06	67	9	16	<0.06	<0.2
739122	<0.14	<0.14	<0.06	74	3	19	<0.06	<0.2
739123	<0.07	<0.07	<0.03	22	6	13	<0.03	0.6
739124	<0.07	<0.07	<0.03	250	5	14	0.36	0.6
739125	<0.07	<0.07	<0.03	381	38	5	0.03	0.4
739126	<0.07	<0.07	<0.03	382	5	18	0.99	1.2



Arnex Resources Ltd.

Deer Bay Property

**Magnetometer Grid and Rock Geochemistry**

MD: Alberni

NTS: 092F/4,5

Scale: 1: 5,000

Date: Jan, 2001

Compiled by A O Birkeland, PEng

**Figure 5**

located at 1350N, 1850W approximately 200 m above 739123. Sample 139121 is from an intensely skarned 0.4 m angular float boulder. The skarn contained heavy garnet, epidote and manganese staining but was not geochemically anomalous. It is inferred that a contact metamorphic skarn assemblage is present along the eastern contact of the gabbro.

Two 5 to 8 cm massive pyrite bands were found in a large angular gabbro/amphibolite float block at sample number 739124 at 910N, 1480W. Black chlorite and biotite alteration is present. Sample 739124 contained 250 ppm Cu, 0.4 ppb Au and 0.6 ppm Ag. The host lithology and alteration are similar to that at the Main Showing located approximately 350 m uphill and indicate that another showing may be present in this area.

Two large angular "near source" mineralized float boulders were found at approximately 800N, 1520W on the west side of the Debris Slide. Sample 139125 contained 381 ppm Cu and 38 ppm Ni in a layered pyroxenite/felsite host. Concordant laminated pyrite and disseminated chalcopyrite are concentrated in the pyroxenite layers. A channel sample was taken from a second large float block found nearby. Massive pyrite and pyrrhotite bands are present in a layered amphibolite/pyroxenite altered host rock. Sample 739126 contained 382 ppm Cu, 1 ppb Au and 1.2 ppm Ag over 0.34 m. The two large float blocks indicate copper mineralization hosted in mafic intrusive rocks occurs nearby up-slope from the float blocks. Hand trenching, mapping and additional rock chip sampling are recommended for this area.

## **6. MAGNETOMETER SURVEY**

### **6.1. Introduction**

The Cu-Ni-PGE mineralization at the Main Showing consists of low temperature millerite-violarite Ni assemblage that has relatively low magnetic susceptibility. Pentlandite and pyrrhotite are present only in small amounts. The magnetometer survey readings on top of the massive sulphide outcrop ranged in value from approximately 55250 nT to 55350 nT, which is only moderately anomalous for the area. Readings varied depending on the day (due to magnetic diurnal) or to the exact position of the instrument.

The gabbro complex 400 m east of the Main Showing is known to be anomalous in Ni-Cu-Co-PGE-Au-Ag-Ti and a genetic link is suggested between the gabbro complex and the amphibolite hosting the Main Showing. This would be equivalent to the "off-set dykes and sills" at the Stillwater Complex. It is postulated that the low temperature non-magnetic Ni assemblage outcropping at the Main Showing changes to a higher temperature magnetic pentlandite-pyrrhotite facies at depth as it dips to the west under the gabbro complex.

The objective of the grid magnetometer survey was to see if a magnetic anomaly is present due to magnetic down-dip mineralization at depth to the west of the Main Showing. The second objective of the survey was to identify any magnetic features on surface that combined with geochemistry would provide surface exploration targets.

## **6.2. Procedure**

A grid based total field magnetometer survey was carried out using a Geometrics G816 Mag System leased from SJ Geophysics Ltd of Delta BC. Readings were taken at 10 m intervals on 30 m line spacing. The grid was surveyed by compass and hip chain and stations were flagged and marked with tyvec tags. The grid was not slope corrected.

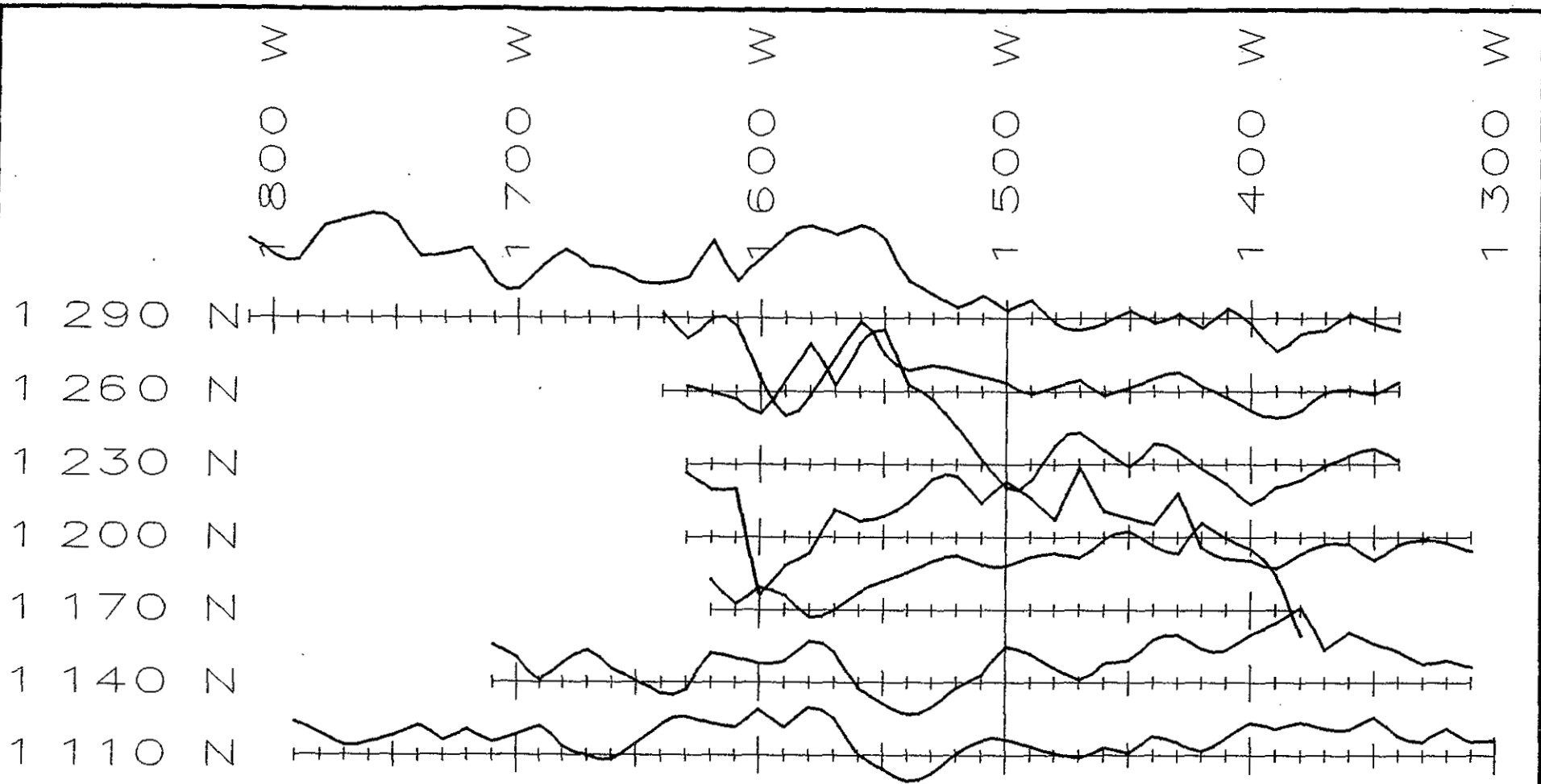
Appendix D contains the raw data from the magnetometer survey. Readings were taken with the instrument sensor mounted on a 1.5 m staff keeping the sensor head oriented in approximately the same direction relative to north for all readings taken. The grid co-ordinates, absolute magnetic value in nT, elevation (in feet) and time were recorded for each station. The survey was carried out along the grid lines in loops starting and closing from the base station at 1200N and 1500W.

The raw data was processed by SJ Geophysics using a computer correction for magnetic diurnal variation by using the "Close Loop" magnetic value and Time. Plots of Magnetic Line Profiles, Magnetic Contour Map and Magnetic Colour Contour Map as compiled by SJ Geophysics are illustrated in Figures 7, 8 and 9 respectively.

The magnetometer grid is located on a very steep (45°) slope containing numerous cliffs and scarps in dense old growth forest and undergrowth. A considerable number of operator days were required to complete the modestly sized grid because of the difficulty of traversing in such thick bush in such steep terrain. It was often difficult to run straight lines and to establish accurate station locations due to having to traverse around cliffs and scarps. A major scarp causes the termination of lines 1170N to 1260N at approximately 1630W.

The grid was not slope corrected and based on the crude method of laying out the grid, station positions are approximate. All magnetic values were plotted on a grid co-ordinate basis assuming station positions are all accurate.

It was observed during the survey that it was difficult to reproduce magnetic readings at times, probably due to interference by magnetic storms. The magnetic differential due to diurnal effects was also considerably large at times due to the length of time required to close the survey loop due to slow going in the bush. The magnetic diurnal also varied on a day to day basis for the base station at 1200N, 1500W and other stations located along the baseline.



**LEGEND**  
**TOTAL FIELD MAGNETICS**

PROFILES POSITIVE UP  
 PROFILE SCALE = 250 nT / cm  
 BASE VALUE = 55250 nT

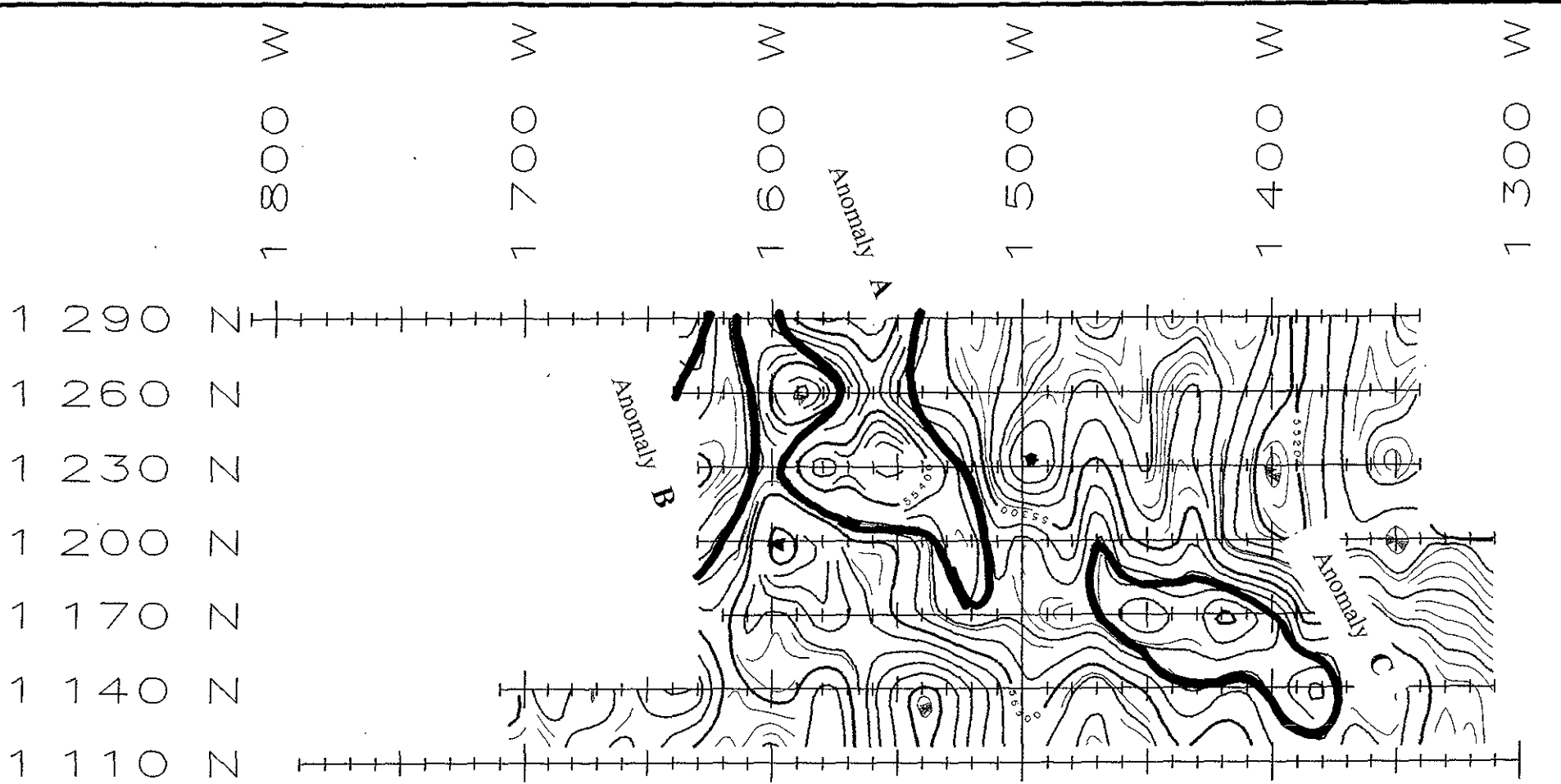
Minimum Value = 55139 nT  
 Maximum Value = 55519 nT

*Arnex Resources Ltd.*  
 DEER BAY PROPERTY  
 Magnetic Line Profiles




MD: Alberni      NTS: 092F/4,5  
 Scale: 1:2500      Date: Jan 2001  
 Compiled by SJ Geophysics Ltd.

Figure 7





LEGEND  
TOTAL FIELD MAGNETICS

-  5 nT Contour
-  20 nT Contour
-  100 nT Contour

Minimum Value = 55139 nT

Maximum Value = 55519 nT

*Arnex Resources Ltd.*  
DEER BAY PROPERTY  
Magnetic Contour Map

MD: Alberni

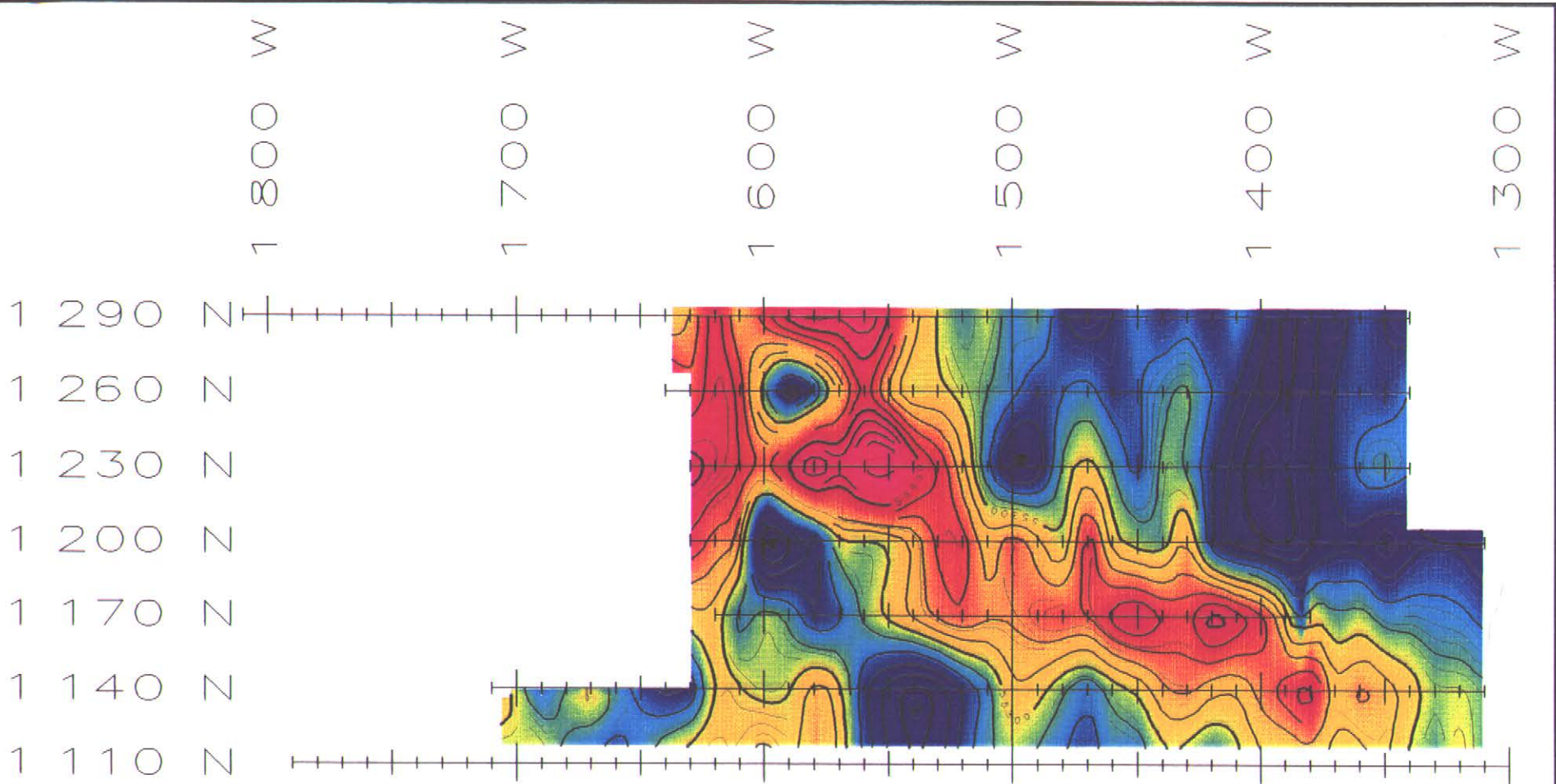
NTS: 092F/4,5

Scale: 1:2500




Date: Jan 2001

*Compiled by SJ Geophysics Ltd.*

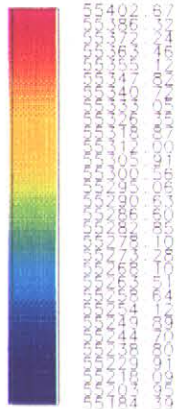
Figure 8



**LEGEND**  
**TOTAL FIELD MAGNETICS**

-  5 nT Contour
-  20 nT Contour
-  100 nT Contour

Minimum Value = 55139 nT  
 Maximum Value = 55519 nT



*Arnex Resources Ltd.*  
 DEER BAY PROPERTY  
 Magnetic Colour Contour

MD: Alberni      NTS: 092F/4,5  
 Scale: 1:2500      Date: Jan 2001  
 Compiled by SJ Geophysics Ltd.

Figure 9

Due to the suspect-unreliable conditions identified above, the magnetometer survey is considered to be a "reconnaissance" style survey suited only to testing for the objectives previously described. A more expensive larger scope magnetometer survey with accurately surveyed stations and better magnetic closures should be conducted to target drill holes at depth based on magnetic anomalies.

### **6.3. Magnetometer Survey Results**

The most significant feature of the Magnetometer Survey is depicted by Anomaly A, (Figure 8) which lies between lines 1200N to 1290N and 1520W to 1600W. The strong +100 nT anomaly above the background of the Main Showing is interpreted to be a down dip magnetic facies of the Main Showing mineralization as postulated. The anomaly is open to the northwest and may represent the magnetic signature of the strike extension of the down dip projection of the Main Zone mineralization.

Anomaly B may also represent down dip magnetic mineralization, or may reflect a geologic contact of an ultramafic component of the Gabbro complex to the west of the Main Showing that contains higher magnetite content. Anomaly B is particularly strong at the western end of line 1230N. The magnetic lows between Anomaly A and Anomaly B between 1540W and 1590W may correspond to a barren geological unit of felsic gneiss, as was observed to occur in this general area.

Based on the attitude of regional and local foliation, and considering the mineralization at the Main Showing is concordant, Anomaly C between 1380W and 1470W on lines 1140N and 1170N is thought to be the surface (or near surface) strike extension of the Main Showing mineralization trend. The anomaly is weakly open to the southeast. Relatively high values are present at the eastern end of line 1170N where anomalous Cu values from rock chip sample 739118 taken from a gossanous area is in the same vicinity.

## **7. RECOMMENDATIONS**

Additional geologic mapping and rock chip sampling should be conducted in the vicinity of the mineralized float and gossanous outcrop areas found as part of the year 2000 program. More work should be done southeast of the Main Zone where a magnetic anomaly indicates the possible surface strike extension of the mineralized zone.

A detailed grid magnetometer survey with accurate surveyed stations should be conducted. The survey should extend beyond the year 2000 grid to the north and west where the anomalies are "open". The survey should also cover the mineralized float and outcrop areas described above. Two fences of shallow diamond drilling should be completed at the Main Showing. Deeper drilling on section to the west should also be done targeted on magnetic anomalies.

## 8. CERTIFICATE OF QUALIFICATION AND CONSENT

I, Arne O. Birkeland, do hereby certify that:

1. I am a Geological Engineer in the employ of Arnex Resources Ltd. with offices at 2069 Westview Drive, North Vancouver, British Columbia.
2. I am a 1972 graduate of the Colorado School of Mines with a Bachelor of Science Degree in Geological Engineering.
3. I have been a registered Professional Engineer with the Association of Professional Engineers Association of British Columbia since 1975, Registration Number 9870.
4. My primary employment since 1966 has been in the field of mineral exploration and development, namely as a Geological Engineer.
5. My experience has encompassed a wide range of geological environments including extensive experience in classification of deposit types as well as considerable familiarization with geochemical and geophysical survey techniques and diamond drilling procedures.
6. I have conducted and supervised the field exploration work as reported on the subject property. I have authored this report that is based on observations and sample results obtained during the Year 2000 exploration program and consent for this report to be filed for assessment work purposes.
7. The author holds title to, and 50% interest in, the Deer Bay Property that is the subject of this report. The author is acting in the capacity as Professional Engineer as author of this report.

Dated at North Vancouver, British Columbia,

This 21<sup>st</sup> day of January, 2001

A. O. Birkeland  
Arne O. Birkeland, P. Eng., President, Arnex Resources Ltd.



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EMPR AR 1898, 1899, 1902, 1916, 1955, 1961, 1966, 1967

EMPR GEM 1969

EMPR EXPL 1972, 1973, 1974, 1980, 1986, 1987

EMPR ASS RT 8106, 8138, 13121, 14182, 14315, 14807, 15155, 15447, 16220, 17284, 18751

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**APPENDIX B**

**Analytical Procedures and Certificates  
Chemex Labs**



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

A0027394

Comments: ATTN: ARNE BIRKELAND

**CERTIFICATE** **A0027394**

(AN) - ARNEX RESOURCES LIMITED

Project: DBP  
 P.O.#:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 04-SEP-2000.

SAMPLE PREPARATION		
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	10	Assay ring to approx 150 mesh
226	10	0-3 Kg crush and split
3202	10	Rock - save entire reject
233	10	Assay AQ ICP digestion charge

\* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES					
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	10	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
4001	10	Ag ppm: A30 ICP package	ICP-AES	1	200
4002	10	Al %: A30 ICP package	ICP-AES	0.01	15.00
4003	10	As ppm: A30 ICP package	ICP-AES	10	50000
4004	10	Ba ppm: A30 ICP package	ICP-AES	20	20000
4005	10	Be ppm: A30 ICP package	ICP-AES	5	100
4006	10	Bi ppm: A30 ICP package	ICP-AES	10	50000
4007	10	Ca %: A30 ICP package	ICP-AES	0.01	30.0
4008	10	Cd ppm: A30 ICP package	ICP-AES	5	1000
4009	10	Co ppm: A30 ICP package	ICP-AES	5	50000
4010	10	Cr ppm: A30 ICP package	ICP-AES	10	20000
4011	10	Cu ppm: A30 ICP package	ICP-AES	5	50000
4012	10	Fe %: A30 ICP package	ICP-AES	0.01	30.0
4013	10	Hg ppm: A30 ICP package	ICP-AES	10	10000
4014	10	K %: A30 ICP package	ICP-AES	0.01	10.00
4015	10	Mg %: A30 ICP package	ICP-AES	0.01	30.0
4016	10	Mn ppm: A30 ICP package	ICP-AES	10	50000
4017	10	Mo ppm: A30 ICP package	ICP-AES	5	50000
4018	10	Na %: A30 ICP package	ICP-AES	0.01	20.0
4019	10	Ni ppm: A30 ICP package	ICP-AES	5	50000
4020	10	P ppm: A30 ICP package	ICP-AES	100	10000
4021	10	Pb ppm: A30 ICP package	ICP-AES	5	50000
4022	10	Sb ppm: A30 ICP package	ICP-AES	10	10000
4023	10	Sc ppm: A30 ICP package	ICP-AES	5	10000
4024	10	Sr ppm: A30 ICP package	ICP-AES	5	10000
4025	10	Ti %: A30 ICP package	ICP-AES	0.01	10.00
4026	10	Tl ppm: A30 ICP package	ICP-AES	20	10000
4027	10	U ppm: A30 ICP package	ICP-AES	20	10000
4028	10	V ppm: A30 ICP package	ICP-AES	20	50000
4029	10	W ppm: A30 ICP package	ICP-AES	20	10000
4030	10	Zn ppm: A30 ICP package	ICP-AES	5	50000
16	10	Se ppm: HCl-KClO3 digest, ext	AAS-BKGD CORR	0.2	100.0





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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 04-SEP-2000  
 Invoice No. : 10027394  
 P.O. Number :  
 Account : AN

## CERTIFICATE OF ANALYSIS

A0027394

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	Mg %	Mn ppm	Mo ppm	Na %
739101	208 226	105	< 1	4.60	30	60	< 5	< 10	0.26	< 5	1335	90	1285	19.55	< 10	0.12	3.67	1200	< 5	0.05
739102	208 226	490	7	2.16	80	20	< 5	< 10	0.13	< 5	1070	510	36500	24.0	< 10	0.01	1.23	350	< 5	0.05
739103	208 226	535	9	1.75	90	< 20	< 5	< 10	0.18	< 5	1330	360	44500	20.4	< 10	0.01	2.13	370	< 5	0.05
739104	208 226	90	1	7.08	< 10	20	< 5	< 10	0.09	< 5	115	10	9000	18.30	< 10	0.04	5.39	1870	< 5	0.04
739105	208 226	200	4	2.92	< 10	< 20	< 5	< 10	0.30	< 5	345	630	18480	10.45	10	0.01	4.05	360	< 5	0.06
739106	208 226	550	14	2.23	< 10	< 20	< 5	< 10	0.16	< 5	585	560	>50000	20.8	< 10	0.01	2.92	290	5	0.04
739107	208 226	320	3	2.78	< 10	< 20	< 5	< 10	0.09	< 5	1450	330	8810	24.3	< 10	< 0.01	2.44	580	< 5	0.04
739108	208 226	265	5	1.93	10	120	< 5	< 10	0.41	< 5	380	430	28700	11.70	< 10	0.11	2.37	270	< 5	0.09
739109	208 226	150	1	2.24	30	< 20	< 5	< 10	0.25	< 5	560	570	10760	12.50	< 10	0.01	3.50	320	< 5	0.06
739110	208 226	370	2	1.98	240	< 20	< 5	< 10	0.39	< 5	580	70	9370	21.7	10	0.03	1.02	590	< 5	0.06

CERTIFICATION:



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
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 PHONE: 604-984-0221 FAX: 604-984-0218

To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project : DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number : 1-B  
 Total Pages : 1  
 Certificate Date: 04-SEP-2000  
 Invoice No. : 10027394  
 P.O. Number :  
 Account : AN

## CERTIFICATE OF ANALYSIS A0027394

SAMPLE	PREP CODE	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Se ppm
739101	208 226	26400	300	< 5	< 10	< 5	< 5	0.04	< 20	< 20	20	< 20	35	9.0
739102	208 226	11030	300	< 5	< 10	< 5	< 5	0.02	< 20	< 20	20	< 20	35	6.0
739103	208 226	5330	300	< 5	< 10	< 5	< 5	0.05	< 20	< 20	20	< 20	30	6.0
739104	208 226	4230	100	< 5	< 10	< 5	< 5	0.06	< 20	< 20	20	< 20	20	1.6
739105	208 226	5020	200	5	10	< 5	< 5	0.12	< 20	< 20	60	< 20	25	6.8
739106	208 226	8720	300	< 5	< 10	< 5	< 5	0.08	< 20	< 20	60	< 20	20	2.4
739107	208 226	>50000	400	< 5	20	< 5	< 5	0.04	< 20	< 20	20	< 20	70	22.8
739108	208 226	15820	100	< 5	10	< 5	20	0.04	< 20	< 20	20	< 20	105	13.4
739109	208 226	20600	200	< 5	< 10	< 5	5	0.07	< 20	< 20	40	< 20	140	10.0
739110	208 226	34800	700	< 5	< 10	< 5	< 5	0.06	< 20	< 20	40	< 20	65	11.4

CERTIFICATION:



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 PHONE: 604-984-0221 FAX: 604-984-0218

To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

A0028164

Comments: ATTN: ARNE BIRKELAND

**CERTIFICATE** **A0028164**

(AN) - ARNEX RESOURCES LIMITED

Project: DBP  
 P.O.#:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 11-SEP-2000.

SAMPLE PREPARATION		
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	10	Assay ring to approx 150 mesh
226	10	0-3 Kg crush and split
3202	10	Rock - save entire reject

ANALYTICAL PROCEDURES					
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2538	10	Au g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.03	500
2529	10	Pt g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.07	500
2530	10	Pd g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.07	500
2539	10	Rh g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.03	500
1056	10	Cu %: Fusion - ICP-AES	Fusion - ICP-AES	0.005	20.0
1057	10	Ni %: Fusion - ICP-AES	Fusion - ICP-AES	0.005	20.0
1058	10	Co %: Fusion - ICP-AES	Fusion - ICP-AES	0.002	10.00
1059	10	S %: Leco furnace	LECO-IR DETECTOR	0.01	40.0
1060	10	Fe %: Fusion - ICP-AES	Fusion - ICP-AES	0.1	60.0
1061	10	As %: Fusion - ICP-AES	Fusion - ICP-AES	0.01	10.00
8068	10	Pb %: Fusion - ICP-AES	Fusion - ICP-AES	0.02	5.00
8069	10	Zn %: Fusion - ICP-AES	Fusion - ICP-AES	0.01	5.00



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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number :1  
 Total Pages :1  
 Certificate Date: 11-SEP-2000  
 Invoice No. :I0028164  
 P.O. Number :  
 Account :AN

## CERTIFICATE OF ANALYSIS A0028164

SAMPLE	PREP CODE	Au g/t	Pt g/t	Pd g/t	Rh g/t	Cu %	Ni %	Co %	S % (Ieco)	Fe %	As %	Pb %	Zn %		
739101	208 226	0.12	1.82	4.76	0.12	0.135	2.42	0.130	14.70	19.8	0.01	< 0.02	< 0.01		
739102	208 226	0.42	2.52	7.70	0.12	3.53	0.980	0.098	18.80	25.1	< 0.01	< 0.02	< 0.01		
739103	208 226	0.54	3.36	12.75	0.18	4.37	0.500	0.126	26.1	22.2	< 0.01	< 0.02	< 0.01		
739104	208 226	0.09	0.21	0.70	< 0.03	0.870	0.385	0.012	4.66	18.1	< 0.01	< 0.02	< 0.01		
739105	208 226	0.21	0.98	2.80	0.06	1.790	0.475	0.032	6.23	13.0	< 0.01	< 0.02	< 0.01		
739106	208 226	0.48	2.10	5.88	0.18	7.66	0.815	0.056	18.10	22.5	< 0.01	< 0.02	< 0.01		
739107	208 226	0.30	1.96	7.70	0.18	0.855	5.10	0.138	25.3	24.7	< 0.01	< 0.02	0.01		
739108	208 226	0.27	1.05	4.41	0.12	2.77	1.400	0.034	9.42	13.0	< 0.01	< 0.02	0.01		
739109	208 226	0.12	0.84	3.08	0.06	1.030	1.790	0.050	8.85	14.6	< 0.01	< 0.02	0.01		
739110	208 226	0.18	1.26	6.16	0.06	0.915	3.06	0.056	16.20	22.9	0.02	< 0.02	0.01		

CERTIFICATION:



# ALS Chemex

Aurora Laboratory Services Ltd.  
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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number : 1  
 Total Pages : 1  
 Certificate Date: 11-SEP-2000  
 Invoice No. : 10028164  
 P.O. Number :  
 Account : AN

## CERTIFICATE OF ANALYSIS A0028164

SAMPLE	PREP CODE	Au g/t	Pt g/t	Pd g/t	Rh g/t	Cu %	Ni %	Co %	S % (Leco)	Fe %	As %	Pb %	Zn %		
739101	208 226	0.12	1.82	4.76	0.12	0.135	2.42	0.130	14.70	19.8	0.01	< 0.02	< 0.01		
739102	208 226	0.42	2.52	7.70	0.12	3.53	0.980	0.098	18.80	25.1	< 0.01	< 0.02	< 0.01		
739103	208 226	0.54	3.36	12.75	0.18	4.37	0.500	0.126	26.1	22.2	< 0.01	< 0.02	< 0.01		
739104	208 226	0.09	0.21	0.70	< 0.03	0.870	0.385	0.012	4.66	18.1	< 0.01	< 0.02	< 0.01		
739105	208 226	0.21	0.98	2.80	0.06	1.790	0.475	0.032	6.23	13.0	< 0.01	< 0.02	< 0.01		
739106	208 226	0.48	2.10	5.88	0.18	7.66	0.815	0.056	18.10	22.5	< 0.01	< 0.02	< 0.01		
739107	208 226	0.30	1.96	7.70	0.18	0.855	5.10	0.138	25.3	24.7	< 0.01	< 0.02	0.01		
739108	208 226	0.27	1.05	4.41	0.12	2.77	1.400	0.034	9.42	13.0	< 0.01	< 0.02	0.01		
739109	208 226	0.12	0.84	3.08	0.06	1.030	1.790	0.050	8.85	14.6	< 0.01	< 0.02	0.01		
739110	208 226	0.18	1.26	6.16	0.06	0.915	3.06	0.056	16.20	22.9	0.02	< 0.02	0.01		

CERTIFICATION:



# ALS Chemex

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 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

A0028020

Comments: ATTN: ARNE BIRKELAND

**CERTIFICATE**                      **A0028020**

(AN ) - ARNEX RESOURCES LIMITED

Project: DBP  
 P.O. #:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 06-SEP-2000.

SAMPLE PREPARATION		
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212	1	Overlimit pulp, to be found

ANALYTICAL PROCEDURES					
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
301	1	Cu %: Conc. Nitric-HCl dig'n	AAS	0.01	100.0



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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number : 1  
 Total Pages : 1  
 Certificate Date: 06-SEP-2000  
 Invoice No. : I0028020  
 P.O. Number :  
 Account : AN

## CERTIFICATE OF ANALYSIS

A0028020

SAMPLE	PREP CODE		Cu %									
739106	212	--	7.89									

CERTIFICATION: 



# ALS Chemex

Aurora Laboratory Services Ltd.  
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 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

A0029423

Comments: ATTN: ARNE BIRKELAND

**CERTIFICATE** **A0029423**

(AN) - ARNEX RESOURCES LIMITED

Project: DBP  
 P.O. #:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 29-SEP-2000.

SAMPLE PREPARATION		
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	16	Assay ring to approx 150 mesh
226	16	0-3 Kg crush and split
3202	16	Rock - save entire reject
229	16	ICP - AQ Digestion charge

\* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES 1 of 2					
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2538	16	Au g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.03	500
2529	16	Pt g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.07	500
2530	16	Pd g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.07	500
2539	16	Rh g/t - part. cupel. FA-ICP	FA-ICP-ARRAY	0.03	500
2118	16	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	16	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	16	As ppm: 32 element, soil & rock	ICP-AES	2	10000
557	16	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	16	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	16	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	16	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	16	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	16	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	16	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	16	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	16	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	16	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	16	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	16	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	16	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	16	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	16	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	16	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	16	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	16	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	16	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	16	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	16	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
551	16	S %: 32 element, rock & soil	ICP-AES	0.01	5.00
2141	16	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	16	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	16	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	16	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	16	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	16	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	16	V ppm: 32 element, soil & rock	ICP-AES	1	10000





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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

A0029423

Comments: ATTN: ARNE BIRKELAND

CERTIFICATE

A0029423

(AN) - ARNEX RESOURCES LIMITED

Project: DBP  
 P.O. #:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 29-SEP-2000.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	16	Assay ring to approx 150 mesh
226	16	0-3 Kg crush and split
3202	16	Rock - save entire reject
229	16	ICP - AQ Digestion charge

\* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

## ANALYTICAL PROCEDURES 2 of 2

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2148	16	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	16	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000
1056	5	Cu %: Fusion - ICP-AES	Fusion - ICP-AES	0.005	20.0
1057	5	Ni %: Fusion - ICP-AES	Fusion - ICP-AES	0.005	20.0
1058	5	Co %: Fusion - ICP-AES	Fusion - ICP-AES	0.002	10.00
1059	5	S %: Leco furnace	LECO-IR DETECTOR	0.01	40.0
1060	5	Fe %: Fusion - ICP-AES	Fusion - ICP-AES	0.1	60.0
1061	5	As %: Fusion - ICP-AES	Fusion - ICP-AES	0.01	10.00
8068	5	Pb %: Fusion - ICP-AES	Fusion - ICP-AES	0.02	5.00
8069	5	Zn %: Fusion - ICP-AES	Fusion - ICP-AES	0.01	5.00



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number :1-A  
 Total Pages :1  
 Certificate Date: 29-SEP-2000  
 Invoice No. : I0029423  
 P.O. Number :  
 Account : AN

## CERTIFICATE OF ANALYSIS A0029423

SAMPLE	PREP CODE	Au g/t	Pt g/t	Pd g/t	Rh g/t	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm
739111	208 226	0.06	< 0.07	1.05	< 0.03	1.4	1.92	< 2	< 10	< 10	< 0.5	< 2	1.07	< 0.5	104	289	5550	4.94	< 10	< 1
739112	208 226	< 0.06	0.14	0.84	< 0.06	1.0	3.22	< 2	< 10	10	< 0.5	< 2	1.26	< 0.5	95	17	1515	6.40	< 10	< 1
739113	208 226	0.78	0.70	5.74	< 0.06	14.0	2.16	38	< 10	< 10	0.5	< 2	0.14	6.0	225	65	>10000	>15.00	< 10	< 1
739114	208 226	< 0.03	0.21	0.63	< 0.03	1.4	1.48	2	< 10	< 10	< 0.5	< 2	0.56	< 0.5	45	117	2220	4.53	< 10	< 1
739115	208 226	0.12	0.35	1.75	< 0.03	1.4	3.01	32	< 10	< 10	0.5	6	0.11	0.5	141	23	3540	>15.00	10	< 1
739116	208 226	2.46	0.98	3.78	0.06	7.2	1.22	102	< 10	< 10	0.5	4	0.51	2.0	289	35	>10000	14.85	< 10	< 1
739117	208 226	< 0.03	0.14	0.28	< 0.03	0.2	2.01	2	< 10	10	0.5	< 2	0.90	< 0.5	23	18	1080	4.74	< 10	< 1
739118	208 226	< 0.03	< 0.07	< 0.07	< 0.03	0.4	0.80	2	< 10	< 10	< 0.5	< 2	0.17	< 0.5	5	23	583	4.41	< 10	< 1
739119	208 226	3.48	< 0.07	< 0.07	< 0.03	1.6	0.77	106	< 10	20	< 0.5	< 2	0.12	< 0.5	13	48	170	12.70	< 10	< 1
739120	208 226	0.06	< 0.07	< 0.07	< 0.03	0.2	0.24	2	< 10	50	< 0.5	2	4.75	0.5	21	5	91	5.62	< 10	< 1
739121	208 226	< 0.06	< 0.14	< 0.14	< 0.06	< 0.2	2.12	< 2	< 10	40	< 0.5	< 2	0.11	< 0.5	16	44	67	4.49	< 10	< 1
739122	208 226	< 0.06	< 0.14	< 0.14	< 0.06	< 0.2	2.38	< 2	< 10	< 10	0.5	< 2	1.15	< 0.5	19	13	74	5.27	< 10	< 1
739123	208 226	< 0.03	< 0.07	< 0.07	< 0.03	0.6	0.41	14	< 10	130	< 0.5	< 2	4.63	< 0.5	13	9	22	6.20	< 10	< 1
739124	208 226	0.36	< 0.07	< 0.07	< 0.03	0.6	1.05	22	< 10	40	< 0.5	2	0.12	< 0.5	14	45	250	10.15	< 10	< 1
739125	208 226	0.03	< 0.07	< 0.07	< 0.03	0.4	1.01	4	< 10	10	< 0.5	< 2	0.26	< 0.5	5	57	381	6.69	< 10	< 1
739126	208 226	0.99	< 0.07	< 0.07	< 0.03	1.2	1.63	268	< 10	30	0.5	< 2	0.16	< 0.5	18	42	382	14.15	< 10	< 1

CERTIFICATION: 

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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
 Comments: ATTN: ARNE BIRKELAND

Page Number :1-B  
 Total Pages :1  
 Certificate Date: 29-SEP-2000  
 Invoice No. :I0029423  
 P.O. Number :  
 Account :AN

## CERTIFICATE OF ANALYSIS A0029423

SAMPLE	PREP CODE	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
739111	208 226	0.02	< 10	2.35	355	3	0.04	2320	180	4	2.77	< 2	2	13	0.05	< 10	< 10	27	< 10	30
739112	208 226	0.02	< 10	2.97	635	< 1	0.03	3290	140	2	2.24	< 2	< 1	24	0.05	< 10	< 10	10	< 10	46
739113	208 226	0.01	< 10	1.36	540	12	0.01	2210	690	2	>5.00	2	4	6	0.03	< 10	< 10	33	10	218
739114	208 226	0.03	< 10	1.39	465	1	0.03	426	770	< 2	2.05	< 2	2	19	0.09	< 10	< 10	17	< 10	42
739115	208 226	0.01	< 10	0.98	585	2	0.02	5620	210	10	>5.00	< 2	1	5	0.06	< 10	< 10	19	10	30
739116	208 226	0.02	< 10	0.51	295	10	0.05	3370	550	8	>5.00	< 2	1	17	0.04	< 10	< 10	34	10	114
739117	208 226	0.03	< 10	0.97	510	< 1	0.03	1515	540	2	0.69	< 2	7	7	0.12	< 10	< 10	33	< 10	42
739118	208 226	0.03	< 10	0.43	205	4	0.04	25	180	< 2	3.09	< 2	< 1	12	0.04	< 10	< 10	4	< 10	18
739119	208 226	0.08	< 10	0.44	315	18	< 0.01	8	180	2	>5.00	< 2	< 1	16	0.03	< 10	< 10	3	30	20
739120	208 226	< 0.01	< 10	0.18	2900	1	< 0.01	2	10	< 2	0.03	4	< 1	3	< 0.01	< 10	< 10	1	< 10	46
739121	208 226	0.17	< 10	1.13	625	1	0.02	9	320	2	1.20	< 2	8	6	0.05	< 10	< 10	90	< 10	72
739122	208 226	0.03	< 10	1.39	465	3	0.05	3	990	2	1.85	< 2	7	7	0.14	< 10	< 10	135	< 10	34
739123	208 226	0.01	< 10	0.21	6170	1	< 0.01	6	110	2	0.02	2	< 1	10	0.01	< 10	< 10	10	< 10	148
739124	208 226	0.20	< 10	0.21	415	10	< 0.01	5	410	2	>5.00	2	< 1	6	0.03	< 10	< 10	6	10	16
739125	208 226	0.10	< 10	0.49	340	7	0.04	38	470	< 2	>5.00	< 2	1	18	0.05	< 10	< 10	9	10	20
739126	208 226	0.25	< 10	0.25	715	12	< 0.01	5	770	2	>5.00	< 2	1	5	0.03	< 10	< 10	9	20	18

CERTIFICATION: *[Signature]* \*



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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

Project: DBP  
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 Account : AN

## CERTIFICATE OF ANALYSIS

A0029423

SAMPLE	PREP CODE		Cu	Ni	Co	S %	Fe	As	Pb	Zn
			%	%	% (Leco)	%	%	%	%	%
739111	208	226	----	----	----	----	----	----	----	----
739112	208	226	----	----	----	----	----	----	----	----
739113	208	226	7.03	0.280	0.028	21.7	23.1	< 0.01	< 0.02	0.03
739114	208	226	----	----	----	----	----	----	----	----
739115	208	226	----	----	----	----	----	----	----	----
739116	208	226	----	----	----	----	----	----	----	----
739117	208	226	0.125	0.150	0.002	0.69	5.4	< 0.01	< 0.02	< 0.01
739118	208	226	----	----	----	----	----	----	----	----
739119	208	226	----	----	----	----	----	----	----	----
739120	208	226	0.015	< 0.005	0.008	< 0.01	15.7	< 0.01	< 0.02	0.01
739121	208	226	----	----	----	----	----	----	----	----
739122	208	226	----	----	----	----	----	----	----	----
739123	208	226	----	----	----	----	----	----	----	----
739124	208	226	0.035	< 0.005	0.002	9.06	12.0	< 0.01	< 0.02	< 0.01
739125	208	226	----	----	----	----	----	----	----	----
739126	208	226	0.045	< 0.005	< 0.002	11.90	16.2	0.01	< 0.02	< 0.01

CERTIFICATION: \_\_\_\_\_

*[Handwritten signature]*

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To: ARNEX RESOURCES LIMITED

2069 WESTVIEW DR.  
 NORTH VANCOUVER, BC  
 V7M 3B1

A0030092

Comments: ATTN: ARNE BIRKELAND

**CERTIFICATE**

**A0030092**

(AN ) - ARNEX RESOURCES LIMITED

Project: DBP  
 P.O. #:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 03-OCT-2000.

### SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212	1	Overlimit pulp, to be found

### ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
301	1	Cu %: Conc. Nitric-HCl dig'n	AAS	0.01	100.0



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To: ARNEX RESOURCES LIMITED

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NORTH VANCOUVER, BC  
V7M 3B1

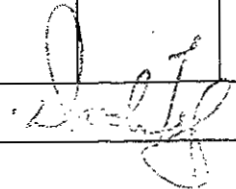
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P.O. Number :  
Account : AN

## CERTIFICATE OF ANALYSIS

A0030092

SAMPLE	PREP CODE	Cu %									
739116	212 --	3.35									

CERTIFICATION: 

# APPENDIX C

## ROCK CHIP GEOCHEMICAL DATA SHEET - DEER BAY PROPERTY - YEAR 2000

PROJECT: DBP

NTS: 092F/04,05

C:\myfiles\dbp\gods2000rx.xls

Sample Number	Location Northing Westing	Rock Type	Sample Type	Width	Alteration	Weathering	Mineralization	Observations Remarks
739101	Main Showing Main Massive Sulphide Zone Trench 1	Amphibolite	Chip Channe	1.2 m	Minor Chlorite	Mod	Disseminated sulphides and 5 cm mass sulphide layers	Millerite, Violarite, minor Chalcopyrite, Pyrite Ni rich layer
739102	Main Showing Main Massive Sulphide Zone Trench 2	Amphibolite	Chip Channe	1.2 m	Black Chlorite Blebs	Mod	Disseminated sulphides and mass sulphide layers	Millerite, Violarite, Chalcopyrite, Pyrite Ni rich layer
739103	Main Showing Main Massive Sulphide Zone Trench 2	Amphibolite	Chip Channe	1.0 m	Black Chlorite Pyritic	Mod Good	Massive sulphides, mass Cpy to 8 cm, mass Py to 15 cm	Chalcopyrite, Pyrite Millerite, Violarite, Cu rich layer 050/-70W
739104	Main Showing Main Massive Sulphide Zone Trench 2	Amphibolite	Chip Channe	0.5 m	Black Chlorite Pyritic	Mod Good	Massive sulphides, disseminated sulphides to 20%	Millerite, Violarite, Chalcopyrite, Pyrite Ni rich layer
739105	Main Showing Main Massive Sulphide Zone Trench 3	Amphibolite	Chip Channe	1.0 m	Black Chlorite	Good	Dessiminated and mass sulphides, 35 cm mass Millerite, Violarite layer, cpy clots to 2 cm,	Millerite, Violarite, Chalcopyrite, Pyrite Ni rich layer 110/-65W
739106	Main Showing Main Massive Sulphide Zone Trench 3	Amphibolite	Chip Channe	0.7 m	Black Chlorite	Good	Dessiminated and mass sulphides, 35 cm mass Chalcopyrite layer	Chalcopyrite, Pyrite Millerite, Violarite, Cu rich layer 075/-55W
739107	Main Showing Main Massive Sulphide Zone Trench 3	Amphibolite	Chip Channe	0.7 m	Black Chlorite, Intense Green Chlorite	Mod	Massive, semi-mass and disseminated sulphides	Millerite, Violarite, Chalcopyrite, Pyrite Ni rich layer
739108	Main Showing Main Massive Sulphide Zone Trench 4	Black Amphibolite with Felsic Gneiss layers	Chip Channe	1.5 m	Intense Black Chlorite, Biotite	Good	Massive, semi-mass and disseminated sulphides	Millerite, Violarite, Chalcopyrite, Pyrite Cu and Ni rich layers
739109	Main Showing Main Massive Sulphide Zone Trench 4	Felsic Gneiss with Black Amphibolite layers	Chip Channe	1.0 m	Chlorite, Biotite	Good	Semi-mass and disseminated sulphides	Millerite, Violarite, Chalcopyrite, Pyrite Ni rich layers

APPENDIX C

ROCK CHIP GEOCHEMICAL DATA SHEET - DEER BAY PROPERTY - YEAR 2000

PROJECT: DBP

NTS: 092F/04,05

C:\myfiles\dbp\gchs2000rx.xls

Sample Number	Location Northing Westing	Rock Type	Sample Type	Width	Alteration	Weathering	Mineralization	Observations Remarks
739110	Main Showing Main Massive Sulphide Zone Trench 5	Black Amphibolite layer hosted in Felsic Gneiss layers	Chip Channel	1.4 m	Intense, massive Black Chlorite - Biotite	Good	Massive and semi- massive Millerite, Violarite layer with disseminated Chalcopyrite - Pyrite layers	Predominantly Ni rich layers
739111	Main Showing Footwall Massive Sulphide Band	Contact between HW Amphibolite and FW Felsic Gneiss	Chip Channel	0.45 m	Muscovite - Sericite minor Black Chlorite, Talc? Clots	Very Poor Rusty rubbly outcrop, leached	Disseminated and massive concordant Pyrite layers with disseminated Chalcopyrite - Millerite - Violarite	Massive Pyrite mineralization underlying Black Amphibolite layer
739112	Main Showing Footwall Massive Sulphide Band	Amphibolite with minor Gneiss	Chip Channel	0.4 m	Propylitic, Epidote, Enstatite Green Chlorite Talc? Clots	Poor, weathered and leached outcrop	Disseminated and massive concordant Pyrite layer with disseminated Chalcopyrite - Millerite - Violarite	Massive Sulphide in contact between Black Amphibolite and Felsic Gneiss layers
739113	Main Showing Footwall Massive Sulphide Band	Black Amphibolite	Chip Channel	0.4 m	Intense Black Chlorite, minor Propylitic, Epidote, Enstatite	Mod- Good	Massive concordant Chalcopyrite - Pyrite layer with disseminated Millerite - Violarite	Massive Sulphide in contact between Black Amphibolite and Felsic Gneiss layers
739114	Main Showing Footwall Massive Sulphide Band	Felsic Gneiss	Chip Channel	0.6 m	Dark Green Chlorite, Sericite - Muscovite, Talc? Clots	Mod	Dessiminated Pyrite locally to 40% over 2 cm	Sulphide Rich Footwall Gneiss
739115	Main Showing Fault Offset of Main Sulphide Band	Black Amphibolite	Chip Channel	0.2 m	Intense, massive Black Chlorite - Biotite	Mod	Massive and Disseminated Sulphide Band	Mineralized Amphibolite Band, Pyrite and minor Cu - Ni Sulphides concordant to contact and foliation
739116	Main Showing Fault Offset of Main Sulphide Band	Felsic Gneiss	Chip Channel	0.9 m	Minor Green Chlorite - Epidote	Poor, leached	Dessiminated Pyrite < 1%	Unmineralized Footwall Gneiss
739117	Main Showing Main Sulphide Zone Trench 6	Black Amphibolite	Chip Channel	1.0 m	Intense, massive Black Chlorite - Biotite, minor Epidote	Poor, leached	Pyrite + Cu - Ni Sulphide Bands + Dessiminated Sulphides	Massive Sulphide Bands >60% sulphide over 2 cm, Sulphides concordant to contact and foliation



## APPENDIX C

### ROCK CHIP GEOCHEMICAL DATA SHEET - DEER BAY PROPERTY - YEAR 2000

PROJECT: DBP

NTS: 092F/04,05

C:\myfiles\dbp\gcds2000rx.xls

Sample Number	Location Northing	Westing	Rock Type	Sample Type	Width	Alteration	Weathering	Mineralization	Observations Remarks
739118	1150N	1380W	Green - Grey Meta-Intrusive Sill	Chip Channel	1.4 m AW	Silicification, Light Green Chlorite	Good except fractures	Massive Pyrite - Disseminated Chalcopyrite Veinites along hairline fractures	Layered Sill with Sulphide Veinlets
739119	1110N	1850W	Light Grey - Green Fine - Med Grained Subhedral Diorite	Chip Channel	1.3 m AW	Moderate - Intense Propylitic, Dark Green Chlorite	Good	Disseminated Pyrite, 5% - 10%, Coarse grained euhedral cubes, Pyrite re-crystallized	Meta Diorite phase of Gabbro Intrusive Complex
739120	1140N	1390W	Layered Dark - Light Green Felsic - Mafic Layered Meta-sill	Angular Float	0.4 m AW	Silicification, Weak Propylitic "Cooked" and Re-crystallized	Good	Massive Pyrite >60% Band, 3 cm thick, Layered coarse and fine grained sulphides	Massive sulphide lamina concordant to contact of mafic - felsic layered sill
739121	1350N Elev	1850W 1580'	Skarn, Dark Green, Euhedral, Very Coarse Grained, Foliated	Sub-angular Float	0.4 m AW	Massive Manganese Garnet Skarn Assemblage	Poor, Leached Boxworks	Pyrolusite - Manganese 50% - 75%	Very altered and re-crystallized Intrusive (Sill?) related Skarn and Wad
739122	1330N Elev	1550W 1290'	Dark Grey, Fine Grained Amphibolite	Angular Float	0.2 m AW	Re-crystallized Dark Chlorite Clots	Mod, Rusty Weathering	Disseminated and laminated Pyrite <5%	Sulphide Mineralized Amphibolite Sill?
739123	1170N Elev	1850W 1040'	Banded Ankerite - Epidote Skarn	Sub-angular Float	0.2 m AW	Intense Skarn - Manganese	Weathered, Leached	Very minor Pyrite	Rod shaped euhedral manganese (Tremolite) crystal intergrowths in Ankerite
739124	910N	1480W	Banded Massive Sulphides in Amphibolite - Olivine "Sheeted" Gabbro Sill?	Angular Float "Near Source"	0.3m AW x 1m	Black Chlorite, Biotite	Good	Pyrite Bands >80%, massive and coarse crystalline	Two 5-8cm Massive Sulphide Bands in large Gabbro - Amphibolite Float Block
739125	800N	1520W	Light Grey Felsic Gneiss Interlayered with Dark Green Pyroxenite Layers	Angular Float in Till, "Near Source"	0.3m AW	Silicification, Pyrite	Good	Concordant Laminated Pyrite and minor Chalcopyrite	Sulphides concentrated in Pyroxenite Layers
739126	820N	1540W	Layered Amphibolite - Pyroxenite	Angular Float in Till, "Near Source"	0.34m AW	Black Chlorite - Amphibole - Biotite	Good	Massive Pyrite - Pyrrhotite Bands to 2 cm, Sulphides = 50% over 34 cm	Sulphides in Layered Amphibolite - Pyroxenite Sill? Complex

## Appendix D

### Magnetometer Survey Deer Bay Property

Operator: A. O. Birkeland  
 Dates: August 9 to September 15, 2000

Page 1 of 5

Co-ordinates	Base Station	Station Reading	Elevation	Time	Notes	
Northing	Westing	(gammas)	(gammas)	(feet)		
1200	1500	55365		960	4:07	Base Line
1210	1500		55275	990	4:13	Base Line
1220	1500		55222	1025	4:16	Base Line
1230	1500		55198	1040	4:19	Base Line
1240	1500		55206	1050	4:23	Base Line
1200	1500	55354		960	4:30	Close Loop
1200	1500	55360		960	4:37	Base Line
1250	1500		55365	1065	4:52	Base Line
1260	1500		55342	1100	4:57	Base Line
1270	1500		55295	1140	5:05	Base Line
1280	1500		55294	1175	5:12	Base Line
1290	1500		55265	1220	5:18	Base Line
1300	1500		55220	1240	5:22	Base Line
1200	1500	55344		960	5:50	Close Loop
1200	1500	55336		960	11:11	Base Line
1190	1500		55370	940	11:14	Base Line
1180	1500		55334	930	11:17	Base Line
1170	1500		55342	905	11:21	Base Line
1160	1500		55339	890	11:25	Base Line
1150	1500		55372	880	11:28	Base Line
1140	1500		55325	865	11:31	Base Line
1130	1500		55301	845	11:34	Base Line
1120	1500		55284	830	11:53	Base Line
1110	1500		55288	820	11:59	Base Line
1100	1500		55284	800	12:03	Base Line
1090	1500		55270	790	12:09	Base Line
1080	1500		55257	780	12:15	Base Line
1200	1500	55341		940	12:29	Close Loop
1200	1500	55429		960	1:42	Line 1200N
1200	1510		55410	955	1:51	Line 1200N
1200	1520		55377	960	1:58	Line 1200N
1200	1530		55370	980	2:01	Line 1200N
1200	1540		55320	980	2:04	Line 1200N
1200	1550		55293	975	2:09	Line 1200N
1200	1560		55284	980	2:14	Line 1200N
1200	1570		55307	950	2:20	Line 1200N
1200	1580		55218	955	2:23	Line 1200N
1200	1590		55191	960	2:29	Line 1200N
1200	1600		55132	980	2:34	Line 1200N
1200	1610		55349	985	2:38	Line 1200N
1200	1620		55347	1005	2:43	Line 1200N
1200	1630		55382	1020	2:55	Line 1200N
1200	1500	55460		1000	3:17	Close Loop

## Appendix D

### Magnetometer Survey Deer Bay Property

Operator: A. O. Birkeland  
Dates: August 9 to September 15, 2000

Page 2 of 5

Co-ordinates		Base Station (gammas)	Station Reading (gammas)	Elevation (feet)	Time	Notes
Northing	Westing					
1200	1500	55330		960	10:20	
1230	1500		55180	1050	10:44	Line 1230N
1230	1510		55261	1050	11:02	Line 1230N
1230	1520		55326	1040	11:10	Line 1230N
1230	1530		55384	1060	11:15	Line 1230N
1230	1540		55415	1060	11:22	Line 1230N
1230	1550		55526	1060	11:28	Line 1230N
1230	1560		55499	1040	11:33	Line 1230N
1230	1570		55413	1060	11:42	Line 1230N
1230	1580		55498	1080	11:50	Line 1230N
1230	1590		55423	1080	11:55	Line 1230N
1230	1600		55356	1080	12:03	Line 1230N
1230	1610		55383	1080	12:10	Line 1230N
1230	1620		55398	1060	12:18	Line 1230N
1230	1630		55411	1080	12:36	Line 1230N
1200	1500	55256		980	1:03	Close Loop
1200	1500	55265			1000 1:20	
1260	1500		55304	1140	1:38	Line 1260N
1260	1510		55363	1155	1:33	Line 1260N
1260	1520		55376	1160	1:42	Line 1260N
1260	1530		55386	1165	1:50	Line 1260N
1260	1540		55375	1160	1:58	Line 1260N
1260	1550		55408	1140	2:10	Line 1260N
1260	1560		55477	1145	2:18	Line 1260N
1260	1570		55403	1140	2:27	Line 1260N
1260	1580		55325	1125	2:36	Line 1260N
1260	1590		55282	1140	2:46	Line 1260N
1260	1600		55358	1160	2:51	Line 1260N
1260	1610		55465	1165	3:00	Line 1260N
1260	1620		55482	1160	3:08	Line 1260N
1260	1630		55440	1175	3:15	Line 1260N
1260	1640		55491	1180	3:22	Line 1260N
1200	1500	55331		960	3:48	Close Loop
1200	1500	55349		960	3:55	Line 1290N
1290	1500		55226	1220	4:25	Line 1290N
1290	1510		55247	1240	4:33	Line 1290N
1290	1520		55223	1255	4:39	Line 1290N
1290	1530		55249	1260	4:46	Line 1290N
1290	1540		55276	1265	4:54	Line 1290N
1290	1550		55361	1280	5:01	Line 1290N
1290	1560		55390	1260	5:10	Line 1290N
1290	1570		55371	1265	5:18	Line 1290N
1290	1580		55389	1285	5:28	Line 1290N
1290	1590		55370	1280	5:33	Line 1290N
1290	1600		55324	1260	5:38	Line 1290N
1290	1610		55276	1280	5:48	Line 1290N
1290	1620		55358	1285	5:55	Line 1290N
1290	1630		55283	1280	5:59	Line 1290N
1290	1640		55270	1280	6:08	Line 1290N
1290	1650		55274	1290	6:14	Line 1290N
1290	1660		55299	1295	6:22	Line 1290N
1290	1670		55304	1280	6:31	Line 1290N
1290	1680		55338	1285	6:37	Line 1290N
1290	1690		55302	1295	6:43	Line 1290N
1290	1700		55259	1290	6:49	Line 1290N
1290	1710		55274	1300	6:56	Line 1290N
1290	1720		55341	1315	7:06	Line 1290N
1290	1730		55330	1320	7:13	Line 1290N
1290	1740		55325	1320	7:18	Line 1290N
1290	1750		55394	1325	7:25	Line 1290N
1290	1760		55414	1320	7:31	Line 1290N
1290	1770		55402	1340	7:41	Line 1290N
1290	1780		55388	1345	7:47	Line 1290N
1290	1790		55319	1325	7:55	Line 1290N
1290	1800		55327	1340	8:03	Line 1290N
1290	1810		55361	1320	8:10	Line 1290N
1200	1500	55372		1000	8:33	Close Loop

# Appendix D

## Magnetometer Survey Deer Bay Property

Operator: A. O. Birkeland  
 Dates: August 9 to September 15, 2000

Page 3 of 5

Co-ordinates	Base Station	Station Reading	Elevation	Time	Notes
Northing	Westing	(gammas)	(gammas)	(feet)	
1200	1500	55246		9:45	
1170	1500	55226	915	9:49	Line 1170N
1170	1510	55322	930	9:55	Line 1170N
1170	1520	55341	935	10:03	Line 1170N
1170	1530	55328	940	10:09	Line 1170N
1170	1540	55306	940	10:15	Line 1170N
1170	1550	55288	945	10:23	Line 1170N
1170	1560	55265	955	10:30	Line 1170N
1170	1570	55229	960	10:37	Line 1170N
1170	1580	55214	970	10:47	Line 1170N
1170	1590	55258	975	10:52	Line 1170N
1170	1600	55275	965	10:58	Line 1170N
1170	1610	55242	985	11:04	Line 1170N
1170	1620	55290	980	11:11	Line 1170N
1200	1500	55225	1000	11:20	Close Loop
1200	1500	55245	990	11:26	
1140	1500	55276	915	11:40	Line 1140N
1140	1510	55314	920	11:49	Line 1140N
1140	1520	55287	935	11:55	Line 1140N
1140	1530	55246	925	12:03	Line 1140N
1140	1540	55232	925	12:10	Line 1140N
1140	1550	55255	920	12:18	Line 1140N
1140	1560	55287	930	12:25	Line 1140N
1140	1570	55361	935	12:32	Line 1140N
1140	1580	55383	935	12:37	Line 1140N
1140	1590	55342	940	12:44	Line 1140N
1140	1600	55338	950	12:52	Line 1140N
1140	1610	55350	970	1:08	Line 1140N
1140	1620	55358	965	1:12	Line 1140N
1140	1630	55283	970	1:18	Line 1140N
1140	1640	55275	965	1:23	Line 1140N
1140	1650	33301	980	1:33	Line 1140N
1140	1660	55327	975	1:39	Line 1140N
1140	1670	55364	980	1:45	Line 1140N
1140	1680	55338	980	1:53	Line 1140N
1140	1690	55302	970	2:00	Line 1140N
1140	1700	55349	990	2:08	Line 1140N
1140	1710	55375	980	2:14	Line 1140N
1200	1500	55248	965	3:00	Close Loop
1200	1500	55245	990	3:05	
1110	1500	55224	835	3:21	Line 1140N
1110	1510	55314	835	3:26	Line 1290N
1110	1520	55287	840	3:34	Line 1290N
1110	1530	55246	850	3:42	Line 1290N
1110	1540	55232	855	3:50	Line 1290N
1110	1550	55255	850	3:54	Line 1290N
1110	1560	55287	845	4:00	Line 1290N
1110	1570	55361	860	4:14	Line 1290N
1110	1580	55383	850	4:20	Line 1290N
1110	1590	55342	855	4:27	Line 1290N
1110	1600	55379	865	4:35	Line 1290N
1110	1610	55343	875	4:44	Line 1290N
1110	1620	55350	880	4:50	Line 1290N
1110	1630	55364	890	5:00	Line 1290N
1110	1640	55348	885	5:07	Line 1290N
1110	1650	55309	895	5:15	Line 1290N
1110	1660	55276	905	5:24	Line 1290N
1110	1670	55283	915	5:29	Line 1290N
1110	1680	55303	910	5:35	Line 1290N
1110	1690	55345	915	5:44	Line 1290N
1110	1700	55326	915	5:50	Line 1290N
1110	1710	55312	905	5:57	Line 1290N
1110	1720	55336	920	6:06	Line 1290N
1110	1730	55316	915	6:14	Line 1290N
1110	1740	55346	920	6:19	Line 1290N
1110	1750	55325	925	6:26	Line 1290N
1110	1760	55312	930	6:35	Line 1290N
1110	1770	55306	935	6:41	Line 1290N
1110	1780	55329	945	6:50	Line 1290N
1110	1790	55354	945	6:55	Line 1290N
1200	1500	55221	1015	7:24	Close Loop

Appendix D

Magnetometer Survey  
Deer Bay Property

Operator: A. O. Birkeland  
Dates: August 9 to September 15, 2000

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Co-ordinates Northing	Westing	Base Station (gammas)	Station Reading (gammas)	Elevation (feet)	Time	Notes
1200	1500	55378		960	9:05	
1200	1490		55369	940	9:09	Line 1200N
1200	1480		55287	960	9:28	Line 1200N
1200	1470		55394	960	9:35	Line 1200N
1200	1460		55303	965	9:41	Line 1200N
1200	1450		55289	960	9:44	Line 1200N
1200	1440		55277	965	9:51	Line 1200N
1200	1430		55341	970	9:59	Line 1200N
1200	1420		55228	975	10:07	Line 1200N
1200	1410		55206	980	10:15	Line 1200N
1200	1400		55202	975	10:21	Line 1200N
1200	1390		55186	990	10:33	Line 1200N
1200	1380		55216	985	10:39	Line 1200N
1200	1370		55235	990	10:45	Line 1200N
1200	1360		55235	990	10:51	Line 1200N
1200	1350		55204	995	10:59	Line 1200N
1200	1340		55234	1000	11:08	Line 1200N
1200	1330		55245	1000	11:15	Line 1200N
1200	1320		55239	1005	11:22	Line 1200N
1200	1310		55222	1010	11:28	Line 1200N
1200	1500	55393			12:22	Close Loop
1200		55378		960	9:05	
1230	1500		55298	940	9:09	Line 1230N
1230	1490		55273	960	9:28	Line 1230N
1230	1480		55345	960	9:35	Line 1230N
1230	1470		55372	965	9:41	Line 1230N
1230	1460		55335	960	9:44	Line 1230N
1230	1450		33302	965	9:51	Line 1230N
1230	1440		55349	970	9:59	Line 1230N
1230	1430		55334	975	10:07	Line 1230N
1230	1420		55298	980	10:15	Line 1230N
1230	1410		55267	975	10:21	Line 1230N
1230	1400		55224	990	10:33	Line 1230N
1230	1390		55259	985	10:39	Line 1230N
1230	1380		55275	990	10:45	Line 1230N
1230	1370		55303	990	10:51	Line 1230N
1230	1360		55324	995	10:59	Line 1230N
1230	1350		55339	1000	11:08	Line 1230N
1230	1340		55313	1000	11:14	Line 1230N
1200	1500	55392		985	11:28	Close Loop
1200	1500	55378		960	11:51	
1290	1500		55344	1225	12:14	Line 1290N
1290	1490		55326	1215	12:20	Line 1290N
1290	1480		55278	1210	12:25	Line 1290N
1290	1470		55265	1230	12:45	Line 1290N
1290	1460		55280	1235	12:51	Line 1290N
1290	1450		55304	1230	12:56	Line 1290N
1290	1440		55278	1235	1:07	Line 1290N
1290	1430		55297	1240	1:15	Line 1290N
1290	1420		55269	1240	1:22	Line 1290N
1290	1410		55309	1235	1:28	Line 1290N
1290	1400		55277	1245	1:38	Line 1290N
1290	1390		55221	1250	1:46	Line 1290N
1290	1380		55258	1255	1:52	Line 1290N
1290	1370		55264	1260	2:00	Line 1290N
1290	1360		55296	1265	2:07	Line 1290N
1290	1350		55276	1270	2:15	Line 1290N
1290	1340		55263	1280	2:25	Line 1290N
1290	1500	55404		985	2:52	Close Loop
1200	1500	55390		960	3:00	
1170	1500		55378	920	3:10	Line 1170N
1170	1490		55359	910	3:15	Line 1170N
1170	1480		55367	900	3:21	Line 1170N
1170	1470		55358	905	3:33	Line 1170N
1170	1460		55394	910	3:45	Line 1170N
1170	1450		55412	910	3:51	Line 1170N
1170	1440		55382	920	3:58	Line 1170N
1170	1430		55367	925	4:05	Line 1170N
1170	1420		55429	930	4:15	Line 1170N
1170	1410		55398	930	4:22	Line 1170N
1170	1400		55375	935	4:29	Line 1170N
1170	1390		55324	945	4:36	Line 1170N
1170	1380		55198	955	4:50	Line 1170N
1170	1500	55414		985	5:18	Close Loop

## Appendix D

### Magnetometer Survey Deer Bay Property

Operator: A. O. Birkeland  
Dates: August 9 to September 15, 2000

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Co-ordinates		Base Station	Station Reading	Elevation	Time	Notes
Northing	Westing	(gammas)	(gammas)	(feet)		
1200		1500 55340		960	9:33	
1140	1500		55302	850	9:47	Line 1140N
1140	1490		55287	845	9:53	Line 1140N
1140	1480		55260	835	10:00	Line 1140N
1140	1470		55234	825	10:10	Line 1140N
1140	1460		55268	835	10:24	Line 1140N
1140	1450		55275	840	10:32	Line 1140N
1140	1440		55316	835	10:40	Line 1140N
1140	1430		55328	830	10:46	Line 1140N
1140	1420		55300	835	10:53	Line 1140N
1140	1410		55296	835	11:00	Line 1140N
1140	1400		55327	845	11:08	Line 1140N
1140	1390		55351	860	11:16	Line 1140N
1140	1380		55383	865	11:25	Line 1140N
1140	1370		55296	860	11:35	Line 1140N
1140	1360		55332	865	11:45	Line 1140N
1140	1350		55310	870	11:52	Line 1140N
1140	1340		55293	865	11:59	Line 1140N
1140	1330		55267	860	12:06	Line 1140N
1140	1320		55275	865	12:13	Line 1140N
1140	1310		55261	875	12:22	Line 1140N
1140	1500	55328		945	12:44	Close Loop
1200	1500	55353		960	1:20	
1110	1500		55259	805	1:42	Line 1110N
1110	1490		55230	795	1:50	Line 1110N
1110	1480		55216	790	1:59	Line 1110N
1110	1470		55206	780	2:08	Line 1110N
1110	1460		55228	765	2:19	Line 1110N
1110	1450		55216	755	2:28	Line 1110N
1110	1440		55251	760	2:34	Line 1110N
1110	1430		55240	770	2:44	Line 1110N
1110	1420		55220	770	2:50	Line 1110N
1110	1410		55247	760	2:59	Line 1110N
1110	1400		55278	765	3:10	Line 1110N
1110	1390		22766	770	3:18	Line 1110N
1110	1380		55280	775	3:24	Line 1110N
1110	1370		55267	775	3:33	Line 1110N
1110	1360		55263	770	3:39	Line 1110N
1110	1350		55290	775	3:52	Line 1110N
1110	1340		55251	785	4:05	Line 1110N
1110	1330		55240	770	4:14	Line 1110N
1110	1320		55267	780	4:20	Line 1110N
1110	1310		55240	785	4:31	Line 1110N
1110	1300		55243	785	4:43	Line 1110N
1110	1500	55394		985	5:24	Close Loop
1200	1500	55339		960	10:25	
1260	1500		55318	1120	10:47	Line 1260N
1260	1490		55294	1105	10:55	Line 1260N
1260	1480		55310	1110	11:05	Line 1260N
1260	1470		55323	1110	11:11	Line 1260N
1260	1460		55291	1115	11:18	Line 1260N
1260	1450		55308	1110	11:24	Line 1260N
1260	1440		55326	1120	11:35	Line 1260N
1260	1430		55339	1125	11:43	Line 1260N
1260	1420		55311	1130	11:50	Line 1260N
1260	1410		55287	1120	11:58	Line 1260N
1260	1400		55260	1135	12:12	Line 1260N
1260	1390		55246	1140	12:20	Line 1260N
1260	1380		55260	1140	12:26	Line 1260N
1260	1370		55298	1150	12:34	Line 1260N
1260	1360		55303	1145	12:41	Line 1260N
1260	1350		55294	1150	12:52	Line 1260N
1260	1340		55318	1155	12:59	Line 1260N
1260	1500	55297		985	1:19	Close Loop