084380

FRY INLET PROJECT
CONTWOYOTO LAKE - FRY INLET, NWT
(Northwest Territories – Nunavut Districts)

REPORT ON EXPLORATION ACTIVITIES

(GEOPHYSICAL SURVEYS, DIAMOND DRILLING AND TILL SAMPLING)

Work completed between February 1999 and June 10th 1999, and July 27th to 28th, 2000.

Mineral Claims
NVR1 TO NVR23 (F66801 & F66772 to F66793)

NTS Sheets
76 E / 01, 02, 08

(Approximate centre of claims: 64° 15' N / 110° 15' W)

Navigator Exploration Corp.

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April 2001

Summary

The Fry Inlet Project consists of twenty-three mineral claims (NVR1 TO NVR23: F66801, and F66772 to F66793) covering 20,225.58 ha (49,976.73 acres). Navigator Exploration Corp. acquired the claims in early 1999. Situated near Contwoyto Lake, and straddling the NWT-Nunavut border, the claims can be accessed by helicopter, or float/ski equipped aircraft, in season.

The Fry Inlet Project lies near the middle of the Slave Structural Province, an Archean aged segment of the North American Craton. Various lithologies of different ages occur within the Slave Province, and the claims are underlain by 2.63 to 2.59 Ga rocks of the Yellowknife Supergroup (YSG) and undifferentiated Archean granitoids. Late Archean granitoid plutons, intruding the YSG, underlie approximately 90 per cent (%) of the property. Migmatitic turbidites of the YSG underlie approximately 10% of the property. The proximity of the DIA 1 kimberlite and a regional geological and tectonic setting similar to the Lac de Gras kimberlite field, suggest that conditions favourable to the formation and preservation of diamonds in the mantle, and their transport to surface, exist at the Fry Inlet Project. Known kimberlite pipes proximal to the property, together with recovered indicator mineral grains and untested airborne geophysical targets, suggest that the Fry Inlet property may host undiscovered kimberlites.

In 1999 ground geophysical surveys (magnetic and limited horizontal loop electromagnetic (HLEM)) were carried out on thirty targets identified from an airborne geophysical survey undertaken by a previous landholder and available in the NWT assessment files. A total of 188.83 km magnetometer and 44.72 km HLEM ground surveys were completed. Five drill targets were identified, and five diamond drill holes for 523m were completed in the spring of 1999. No kimberlite bodies were intersected by any of the drill holes. No follow-up drilling on these specific targets is recommended.

Subsequent follow-up ground checking of other potential drill targets and geophysical anomalies in the summer of 2000 led to additional till sampling. A total of 20 till samples were collected from Fry Inlet property. Several till samples returned modest amounts of kimberlite indicator grains. The results of the ground geophysical surveys, till sampling and ground checking programs suggest that there are nine lower priority geophysical targets that may warrant further investigation. A more rigorous review of the available airborne geophysical data may also generate additional targets for ground geophysical follow-up.

Re-evaluation and compilation of airborne geophysical data and available geochemical results is recommended to establish future priorities. Pending favourable assessments further ground geophysical and geochemical surveys, and ground checking may be required to identify and prioritize potential targets.

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1.0 INTRODUCTION

Navigator Exploration Corporation acquired twenty-three claims covering 49,976.73 acres (920,225.58 ha) in February 1999 in the Contwoyto Lake area (NTS 1:250,000 sheet 76E), straddling the administrative boundary between Nunavut and the Northwest Territories (Figure 1). The purpose of the acquisition was to explore for potential diamondiferous kimberlite bodies. The area is of interest for diamond exploration because of similarities to the geological setting of the diamondiferous Lac de Gras kimberlites, and the discovery of a weakly (non-economic) diamondiferous kimberlite (DIA 1) within approximately three km of the western margin of the Fry Inlet Property. Previous airborne geophysics and work completed by New Dolly Varden Minerals Inc. between 1992 and 1997 were reviewed. Thirty targets were selected for follow-up ground magnetometer and, where warranted, horizontal loop electromagnetic (HLEM) surveys (Grids 1 to 7, 9 to 23 and 25 to 32, see Map 1). A total of 188.83 line km of ground magnetometer and 44.72 line km of HLEM surveys were completed over the 30 grids in April and May 1999. Five targets were selected, on the basis of the ground geophysical results, for diamond drilling in late May and early June 1999. A total of 523m of diamond drilling were completed in five holes. No kimberlite was intersected. A small program of ground checking to follow-up selected geophysical anomalies, acquire till samples and locate some drill holes was conducted in July 2000.

This report documents work completed between February 1999 and July 2000. Contained herein are descriptions of landholdings, including a list of claims, their location, access, physiography and other relevant information. A discussion of diamond potential and the anticipated exploration target follow a description of regional and property scale geology. Details and discussion of ground geophysical surveys, diamond drilling and limited follow-up ground checking and till sampling are provided. Conclusions and recommendations based on the work undertaken to date compete the report.

2.0 DESCRIPTION OF LANDHOLDINGS

2.1 Location and Mineral Claims

The Fry Inlet Project straddles the administrative boundary between Nunavut and the Northwest Territories (NWT), about 350 km north-northeast of Yellowknife. The property consists of four distinct claim blocks (Figure 2) informally referred to as blocks A-D (northeast to southwest). Claims extend over an area that measures approximately 9.6km (north-south) by 7.8km (east-west), centred just south of the middle part of Contwoyto Lake. Three claims (NVR8 (F66778), NVR 10 (F66780) and NVR11 (F66781)) straddle the N.W.T. - Nunavut boundary. The relevant 1:250,000 National Topographic System (NTS) map sheet is 76E (Contwoyto Lake), and more specifically the property is located within 1:50,000 scale NTS map sheets 76E / 01, 02 and 08.

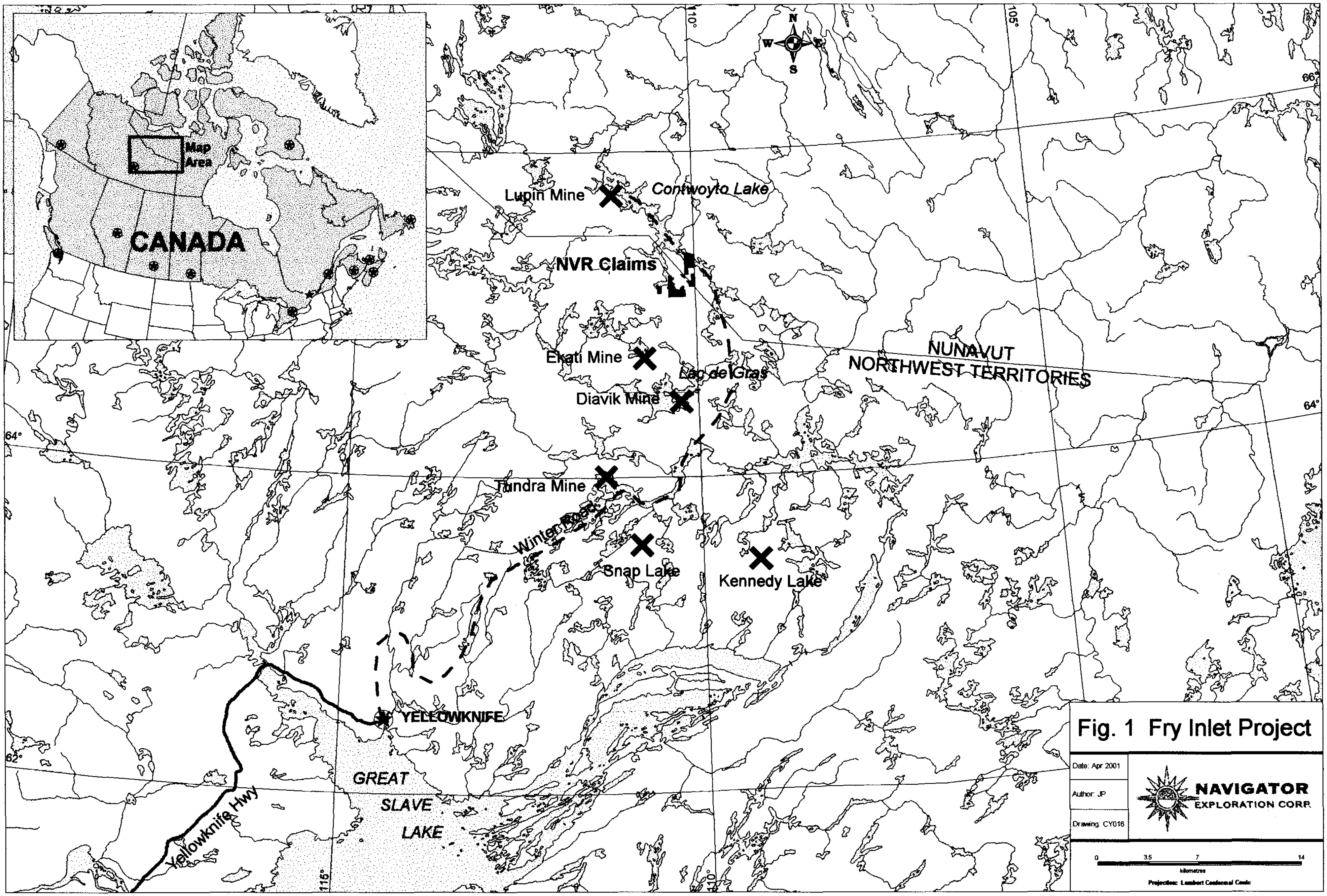
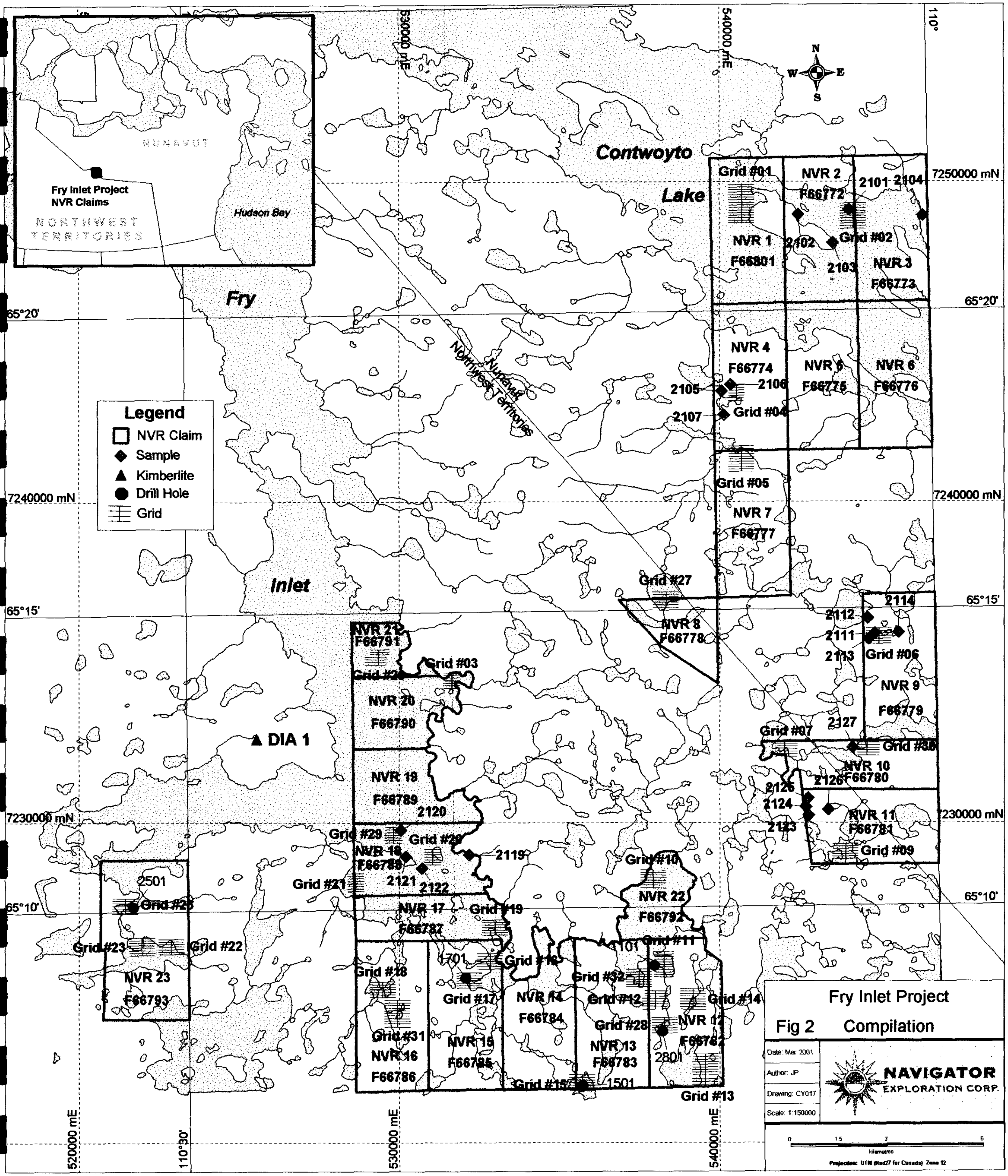


Fig. 1 Fry Inlet Project



Fry Inlet Project
NVR Claims
NUNAVUT
NORTHWEST TERRITORIES
Hudson Bay
Contwoyto
Lake
Fry
Inlet
Nunavut
Northwest Territories
Legend
NVR Claim
Sample
Kimberlite
Drill Hole
Grid
DIA 1
530000 mE
540000 mE
520000 mE
110°
110°30'
7250000 mN
7240000 mN
7230000 mN
65°20'
65°15'
65°10'
NVR 1 F66801
NVR 2 F66772
NVR 3 F66773
NVR 4 F66774
NVR 5 F66775
NVR 6 F66776
NVR 7 F66777
NVR 8 F66778
NVR 9 F66779
NVR 10 F66780
NVR 11 F66781
NVR 12 F66782
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2119
2120
2121
2122
2123
2124
2125
2126
2127
2501
1701
1101
1501
2801
Fry Inlet Project
Fig 2 Compilation
Date: Mar 2001
Author: JP
Drawing: CY017
Scale: 1:150000
NAVIGATOR
EXPLORATION CORP.
0 1.5 3 6
kilometres
Projection: UTM (Nad27 for Canada) Zone 12

The Fry Inlet Property consists of 23 mineral claims NVR 1 (F66801) and NVR 2 to NVR 23 (F66771 to F66793) totalling 49,976.73 acres (20,225.58 ha). Three claims (NVR8 (F66778), NVR 10 (F66780) and NVR11 (F66781)) are actually split by the NWT - Nunavut boundary and others are irregular in shape where claim boundaries follow shorelines. Claims were staked in February 1999 by Covello, Bryan & Associates (CBA) for Navigator Exploration Corp..

2.2 Access

The Fry Inlet Project can be accessed via float or ski equipped fixed wing aircraft using any of the numerous lakes within the area. The nearest improved landing strips available to wheeled aircraft are gravel runways at the Ekati Mine (~55km to the southwest), the Lupin Mine (85km to the northwest), and the proposed Diavik Mine (90km to the south).

Nuna Logistics operates and maintains a winter road, from Yellowknife to Echo Bay's Lupin Mine that crosscuts the northeast margin of the Fry Inlet property. SouthernEra Resources Ltd. maintains an exploration camp on the east side of Yamba Lake (approximately 35km west-southwest of Fry Inlet Project), while DeBeers Canada Exploration Inc. operates an exploration camp at Handy Lake (approximately 35km southeast of Fry Inlet Project)

Fuel, supplies and equipment for fly-camps must be expedited from Yellowknife.

There is no base camp on the property. Accommodation may be available at the Yamba Lake (Circle K) camp, the proposed Diavik Diamonds Project or the Lupin Mine. Freeze-up and break-up of ice on the lakes occurs in mid September and June, respectively, and during this time helicopter access is required. Ice-free seasons average about 3 to 3½ months in duration.

2.3 Physiography, Flora and Fauna

The Fry Inlet Project lies within the Barrenlands of the Bear-Slave-Upland physiographic zone of the Canadian Shield (Dyke and Dredge, 1989) approximately 85km south of the Arctic Circle. Elevation in the immediately vicinity of the Fry Inlet Project varies from 445m above sea level (asl) on Fry Inlet and Contwoyto Lakes to a high spot elevation of 502m asl south of Contwoyto Lake, in the area of claim NVR 10 (F66775). Rolling, rocky ridges separated by low-lying muskeg and numerous shallow lakes of variable size characterize the topography. The property lies northeast of the southern limit of continuous permafrost (Dyke et al., 1989). Average annual temperatures range from -45°C in the winter, not including the effects of intense wind chill factors, to the upper 20's°C in mid-summer. Electrical storms are common during the summer months. Most of the annual average 1.0m snowfall occurs during spring and fall storms. Wildlife is abundant in the region and includes caribou, musk oxen, Arctic wolves, Arctic foxes, Barrenland grizzlies, wolverines, Arctic hares and ptarmigan. In addition, lake trout and grayling are common in many of the lakes and rivers.

2.4 *Property History*

The largest scale published geological map by the Geological Service of Canada (GSC) that covers the Fry Inlet Project (southeast section of NTS 76E) is a compilation map available only at 1:500,000 scale (Fyson, 1999). Adjacent NTS sheets 86E, 86I and 76L (west, northwest and north) areas are represented on a 1:250,000 scale geological compilation map (Gerbert et al, 1996).

Original geological mapping by the GSC at 1:250,000 scale covered the west half of NTS 76E on the Itchen Lake Area, Map 1473A (Bostock, 1980). The area immediately south of the Fry Inlet Project is covered by original GSC one inch to four mile scale mapping on Lac de Gras Map 977A (Folinsbee, 1949). Unfortunately, geological mapping at 1:100,000 scale on the east half of NTS sheet 76E, where the Fry Inlet Project claims occur, remains unpublished (King, unpublished, Contwoyto-Nose Lakes, District of Mackenzie, 1988) and is not represented on any of the available GSC compilations except the 1:500,000 scale compilation map referred to above. Original geological mapping by the GSC in 1964 and 1965 at the 1:50,000 scale in the northwest section of NTS 76E (76E/11 and 76E/14) is represented on Map 1411A Geology, Contwoyto Lake, Mackenzie District (Tremblay, 1976).

Recent surficial geology mapping by the GSC in 1994 and 1996 covering the Fry Inlet area is available at 1:125,000 scale (Kerr et al, 2000). Figure 3 presents a relevant portion of that map (Kerr et al, 2000) with respect to the Fry Inlet claims. Three main ice directions are recognized in the Fry Inlet Project area (2158, 2708 and 3208). Kerr et al (2000) presented a chronological sequence of ice movements and direction that is shown in Figure 4. More detailed discussion of surficial geology is presented in section 3.2.

Diamond exploration in the Slave Province of the Northwest Territories prior to the early 1990s was very limited until Dia Met Minerals Ltd. announced that it had discovered a diamond-bearing kimberlite in the Lac de Gras region in 1991. This announcement sparked one of the largest claim-staking rushes in Canadian history. Since then, well over 200 kimberlites have been discovered in the Lac de Gras region, of which 20% are estimated to be diamondiferous.

There is limited information available on previous diamond exploration in the Fry Inlet Project area. New Dolly Varden Minerals Inc. (NDVM) explored for diamonds in an area encompassing the current Fry Inlet Project area from 1992 to 1997. In 1993 NDVM conducted an airborne geophysical survey along with follow-up till sampling, ground magnetic and horizontal loop electromagnetic (HLEM) surveys over their DIA claim group (Contwoyto Property), which encompasses the current Fry Inlet Project area.

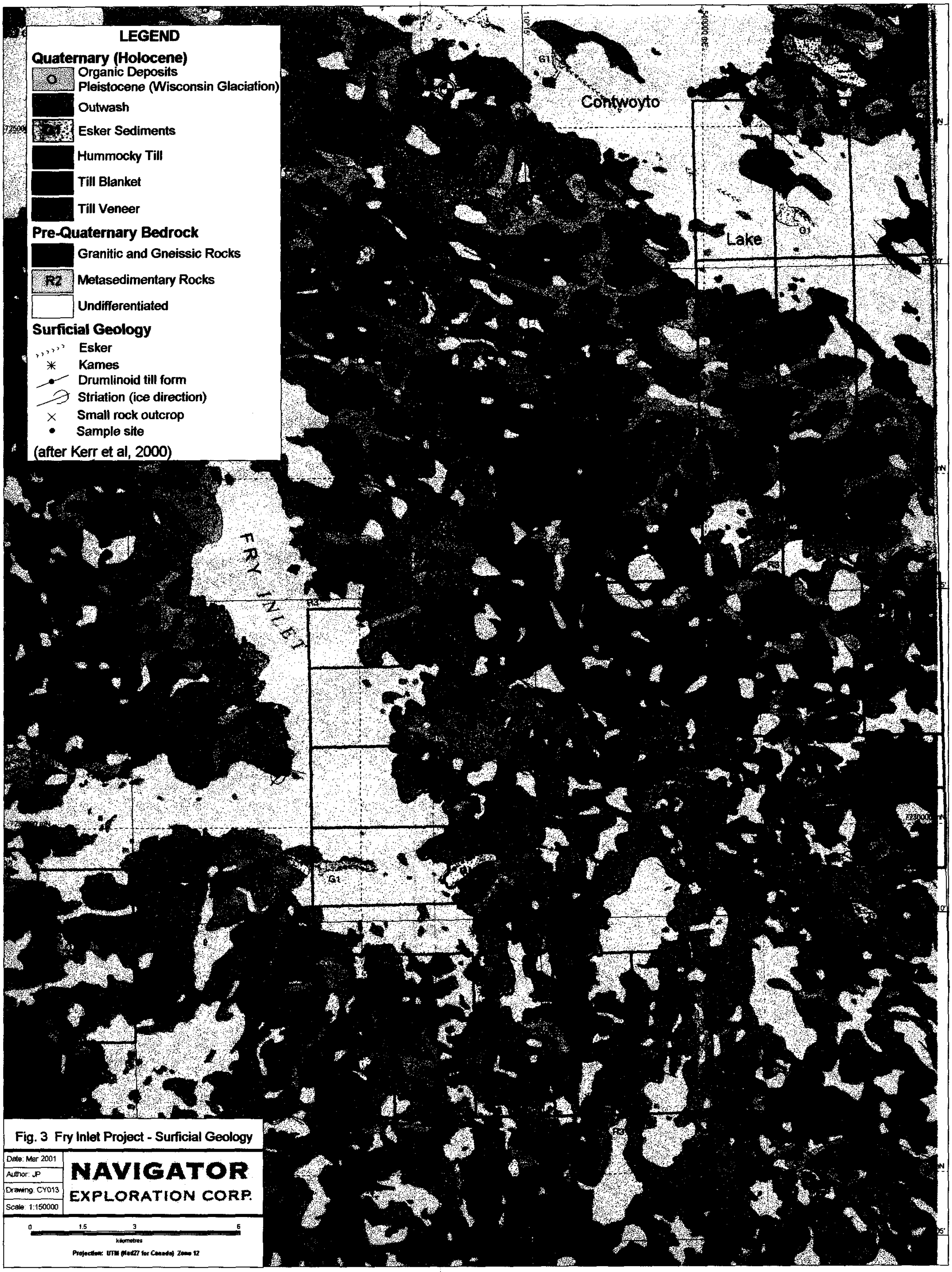
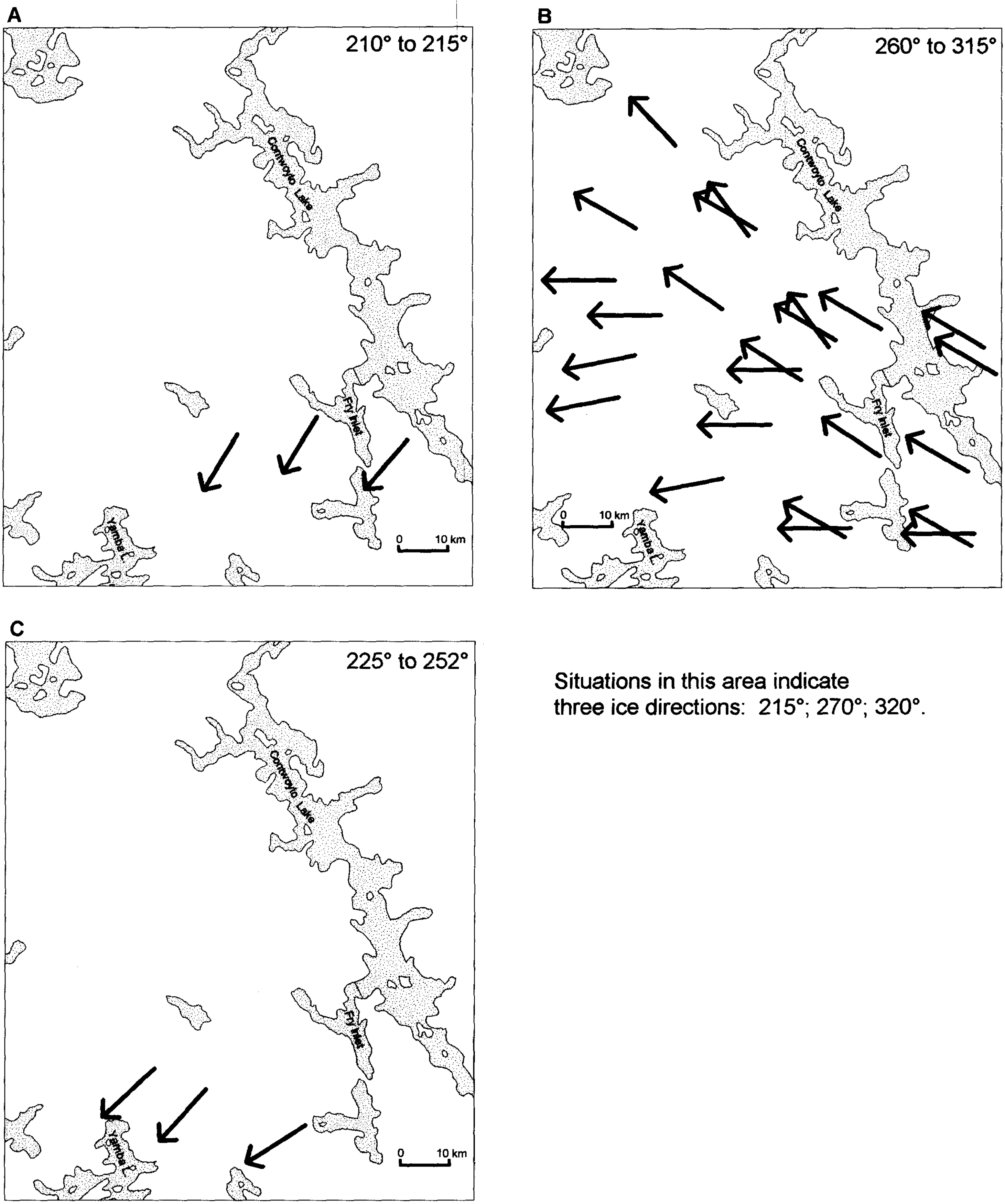


Fig. 3 Fry Inlet Project - Surficial Geology

Date: Mar 2001	**NAVIGATOR** EXPLORATION CORP.
Author: JP	
Drawing: CY013	
Scale: 1:150000	

0 1.5 3 6
Kilometres
Projection: UTM (Nad27 for Canada) Zone 12



Situations in this area indicate three ice directions: 215°; 270°; 320°.

Figure 4: Sequence of ice flows in the Contwoyto Lake area. A is the oldest flow, C is the youngest. (After Kerr et al, 2000)

Paper copies (1:50,000) of the airborne geophysical survey (conducted by Urquhart Dvorak Ltd.- High Sense Geophysics Ltd.) at 200 m line spacing, are publicly available at the assessment office in Yellowknife, however, the original digital data sheet maps at 1:20,000 scale are not. Canamera Geological Limited was contracted by NDVM to conduct ground geochemical till surveys in an effort to identify potential diamond indicator minerals. Follow-up drilling on targets west of the current Fry Inlet Project resulted in the discovery of the weakly diamondiferous but non-economic DIA 1 kimberlite. More details of the work preformed by or for NDVM between 1992 and 1997 are presented in section 4.2.1.

Navigator acquired the current NVR claims through an option agreement with Covello, Bryan & Associates Inc. (CBA) in early 1999. On behalf of Navigator, CBA carried out a geophysical compilation based upon the NDVM airborne survey results, target selection, follow-up ground magnetometer and HLEM surveys, and diamond drilling between April 5th and June 10th, 1999. Navigator conducted a limited follow-up program of ground checking and till sampling in July of 2000, based upon the 1999 geophysical and diamond drill programs.

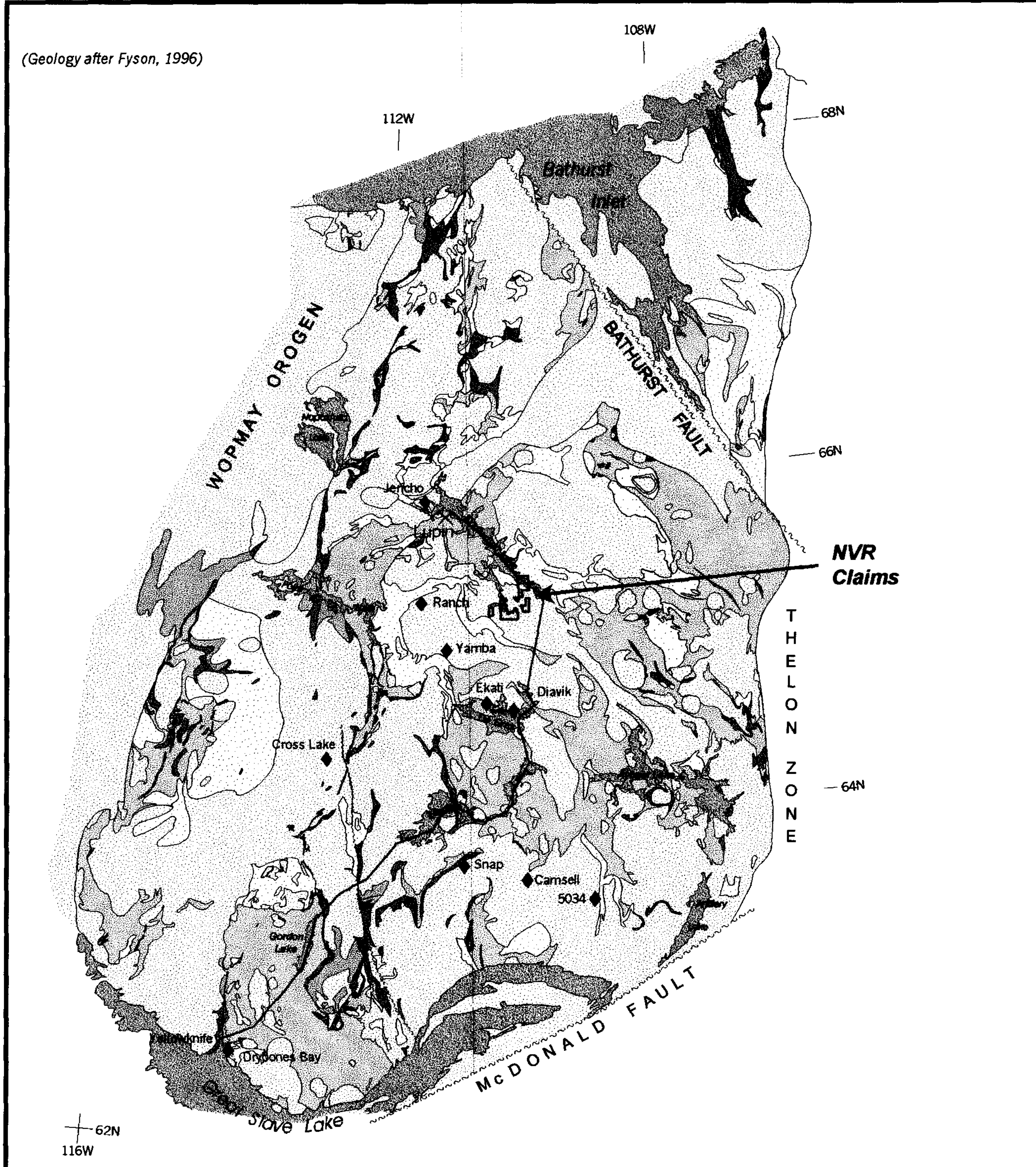
3.0 GEOLOGY AND EXPLORATION TARGET

3.1 Regional Geology

The Fry Inlet Project lies within the middle of the Slave Structural Province, an Archean segment of the North American Craton. Although the Slave Province has been the subject of extensive bedrock mapping and related studies, its overall tectono-magmatic evolution remains controversial. A wide variety of lithologies of different age occur within the Slave Province (Figure 5). At the surface, 65% of the rocks are granitoid and 35% are supracrustal (Fyson and Padgham, 1993) and more than half of the surface area consists of Late Archean granitoids (2.70 to 2.55Ga).

Granitic rocks were emplaced during two separate magmatic events. The first group of plutonic rocks were emplaced between 2.667 and 2.65Ga, and are best represented by the Wishbone monzogranite, a large plutonic body outcropping southwest of the Lupin Mine. The emplacement of the monzogranite has been interpreted as a syn-volcanic intrusion (Relf, 1992a). A second magmatic event occurred between 2.608 and 2.585Ga, emplacing calc-alkaline rocks of diorite to granodiorite composition and peraluminous granites (Relf, 1992a).

Supracrustal rocks, members of the Yellowknife Supergroup (YSG), comprise distinct belts of metavolcanic and metasedimentary rocks ranging in age from 2.71 to 2.58Ga. Metavolcanic units can be divided into two main groups, one dominated by mafic metavolcanic rocks and related intrusive rocks with mid-ocean ridge chemical affinities and the other dominated by volcaniclastic rocks of intermediate composition similar to those found in modern island-arc settings (Relf, 1992a). Metasedimentary belts are comprised of metaturbidites that may contain iron formation, polymictic conglomerates and related clastic sedimentary rocks (Relf, 1992a; Bowie, 1994). Most of the



LEGEND

PROTEROZOIC

- Cover and intrusive rocks

ARCHEAN

- Plutonic rocks / partly >2.8 Ga
- Metasediments / migmatite
- Metavolcanics: intermediate to felsic / mafic and undifferentiated

- Shear zone
- Diamondiferous Kimberlite Pipe
- Gold Mine
- Winter Road
- Mineral permits held by Navigator Exlploration Corp.; Identifier

Navigator Exploration Corp.

NORTHWEST TERRITORIES

REGIONAL GEOLOGY SLAVE PROVINCE

Scale 0 50 100 150 Kilometres

Figure 5

FEBRUARY, 2001

supracrustal rocks have been dated at 2.715 to 2.655Ga, although both older (3.15Ga) and younger (<2.615Ga) supracrustal rocks have been recognized (Kjarsgaard, 1996).

Limited exposures of Proterozoic rocks near Rockinghorse Lake and the northwestern end of Contwoyto Lake, have been correlated with the Goulburn and Epworth groups. They are interpreted to represent cratonic and marginal geosynclinal environments lying unconformably on Archean basement (Bostock, 1980).

Major structural and tectonic features define the borders of the Slave Province (Figure 5), including the Wopmay Orogen (northwest and west edge), the Great Slave Shear Zone - McDonald Fault (south-southeast) and the Thelon Tectonic Zone (eastern border). Thrusting, later polyphase folding and late faulting typify the province. Metamorphism within the Slave Province is up to greenschist and amphibolite grades.

The complex structural evolution of supracrustal domains within the Slave Province is the result of interaction of several generations of plutons with regional stress systems. Early structures of individual domains are overprinted by distinctive directional sets of regional foliations. Regional control of foliation, as indicated by the structural asymmetry of the province, is expressed by the westerly vergence of folds. These westerly convex fold arcs have a preferred easterly dip of later stage foliations (Fyson and Helmstaedt, 1988). Foliations within the metasedimentary units tend to wrap concordantly around syn-kinematic granitoid plutons and are generally confined to areas proximal to the plutons. Further from the plutons, foliations form distinct regional north to north-northwest and northeast striking trends and, along with subsets of more limited regional extent, usually interfere in a limited zone of overlap (Fyson and Helmstaedt, 1988).

Lineaments formed by the volcanic belts and granite margins change in trend north of latitude 66°N from predominantly northwesterly in the eastern portions of the province to north-northwest and northeast. Sharp contrasts within the structural trend of the province are evident in the southwest where volcanic belts and intrusion margins trending approximately northwest, northeast and north are juxtaposed into an angular pattern. This angular pattern suggests that volcanism and structure may have been controlled by an underlying system of crustal-scale fractures (Padgham and Fyson, 1992; Percival, 1996; Balzer and Dufresne, 1999).

3.2 Property Geology

Recent 1:125,000 surficial mapping by Kerr at al (2000) provides good coverage of the Fry Inlet Project area (Figure 3), and identifies five types of surficial deposits within the claims blocks: Till Veneer, Till Blanket, Hummocky Till, Esker Sediments, and Organic Deposits.

Tills derived from Pleistocene Wisconsin glaciation are described as:

T1 – Till Veneer: less than 2 m thick; rock structures generally visible on air photos.
T2 – Till Blanket: greater than 2 m thick, and occurring as till plains or drumlinoids.
T3 – Hummocky Till: greater than 2 m thick but generally greater than 5 m thick, forming irregular rolling terrain with relief up to 15m, hills and ridges up to 3km long. Small meltwater channels and boulder lag concentrations may be present.

Areas of till cover commonly include physiographic features like drumlinloids, eskers, and kame and kettle complexes. Drumlinoids are most common in areas dominated by Till Blanket physiography and can be useful to determine ice direction. Eskers contain stratified to massive glaciofluvial sediments generally oriented in ridges 1 to 20m thick that generally form parallel to regional ice flow directions. Kame and kettle complexes are unoriented mounds and hillocks. Boulder lag deposits or outwash plains may be present along the margins of eskers.

Quaternary organic deposits consist of peat and mud, are generally less than 1m thick and occur in low lying areas that often represent former lakes left behind after deglaciation.

The following interpretation, nomenclature and visual estimates of surficial coverage by type are derived largely by reference to the work of (Kerr et al, 2000), as shown in Figure 3. The stated percentages of area coverage according to surficial geology are visual estimates from that map and are only intended as rough approximations. Note that Navigator has not undertaken detailed mapping of the Fry Inlet Project area.

Till deposits underlie over 90% of the NVR claims (Figure 3). Till blanket is the most prevalent cover, averaging around 60% amongst the four claim blocks but ranging from a maximum of 70 % coverage in the southwest (Block D) to a minimum of approximately 45 % in the northeast (Block A). Till veneer forms the second most abundant surficial cover, averaging approximately 23 % but reaching a maximum of approximately 27% in the southwest (Block D) and a minimum of approximately 18% in the northeast (Block A). Hummocky till is common to the northeast (approximately 35% of Block A) but diminishes to the southwest and is absent in the extreme southwest portion of the property (Block D).

Two eskers are mapped: one in Block A indicates a northwest ice direction and second in Block C indicates a west ice direction. Kames are a common feature in Block C but are rare elsewhere. Drumlinoid features are more common in the eastern and northeastern portion of the Fry Inlet Project where hummocky till is more prevalent.

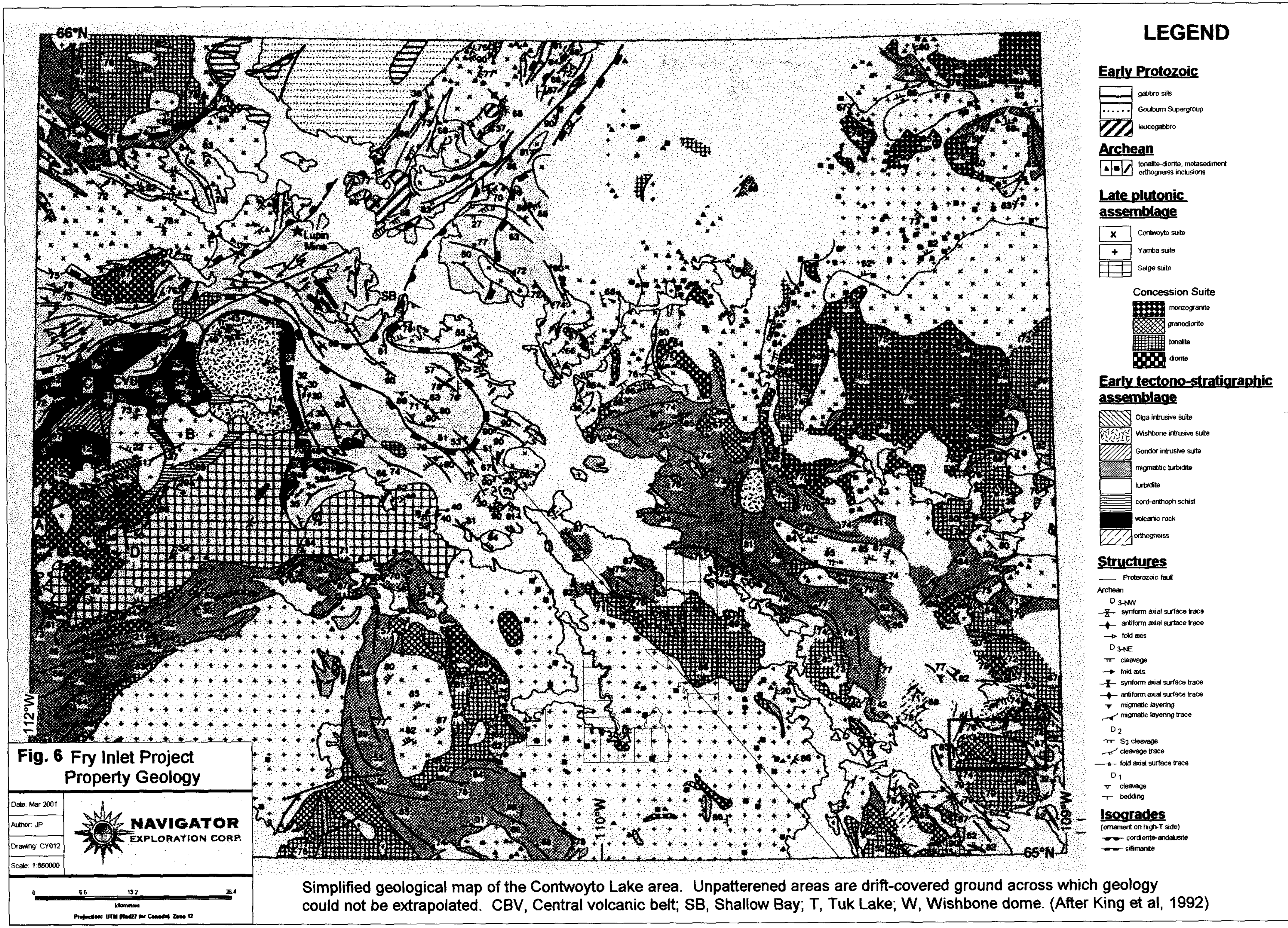
Quaternary organic deposits reach a maximum of approximately 2% coverage within blocks A and B, on the north and east portions of the property, and cover approximately 1% of blocks C and D.

Bedrock exposure averages approximately 3% over the entire property, with the highest percent of exposure naturally occurring in areas where till veneer predominates (an estimated 8% bedrock exposure on Block C). Almost all bedrock occurrences on the map of Kerr et al (2000) are classified as granitic or gneissic except for a few metasedimentary occurrences on the north shore of Contwoyto Lake (Block A). This is consistent with regional geological mapping.

Three main ice directions affect the region: 215°, 270° and 320° (Hart et al, 1989). Kerr et al (2000) present three separate, chronological sequences related to Wisconsin ice advances. The oldest is predominantly a southwest ice advance, and that is followed by a predominantly northwest but including a west advance on the south part of the NVR claims. The most recent glaciation events include northwest to north, west and southwest advances, in areas to the north, west and southwest (Figure 4). The predominant ice direction on Fry Inlet Project claims is northwest to north-northwest (~320°) but a west to west by north advance is noted in glacial striae and esker flow directions across the southern most claims. Southwest ice advances are also noted in lands immediately adjacent to the southwest part of the Fry Inlet Project.

Geological maps covering the Fry Inlet Project at a reasonable scale for exploration purposes are sadly lacking. Reconnaissance mapping (~1:253,440 or 1" to 4 miles scale) was carried out to the west, and south of the Contwoyto Lake in the 1940's and 1960's by the GSC as part of regional NWT studies (Bostock, 1980; Folinsbee, 1949, Fraser, 1969). More detailed mapping (1:125,000 to 1:50,000 scales) to the northwest, south and east of the Fry Inlet Project by the GSC occurred in the 1960's, 1980's and 1990's (Firth, 1982; Kjarsgaard, 1994; Tremblay, 1966).

Although mapping in the Contwoyto Lake area at ~1:100,000 scale (Contwoyto-Nose Lake) was carried out by the GSC in 1988 this data has not been published as a map (King, unpublished). The GSC released a compilation map at 1:500,000 scale (EGS 1998-16) in 1999 which provides the largest scale map available that covers the Fry Inlet Project area, apparently utilizing the unpublished Contwoyto-Nose Lake mapping data by King. However, EGS 1998-16 is an entirely lithological map and contains no structural information. A geological figure at approximately 1:660,000 scale that includes some structural information map in the Fry Inlet Project area is presented as *Figure 2* in *Late Archean tectono-magmatic evolution of the central Slave Province, NWT* (King et al, 1992) but the source of the geological mapping is not stated. Presumably, the geology and structure in this figure includes King's own unpublished mapping of the Contwoyto – Nose Lake area in 1988. However, some details on the unpublished mapping by King in 1988 are contained in *Current Research, 1990, part c, GSC, paper 90-1C, pp.177 – 187* (King et al, 1990). King et al's (1992) *Figure 2* with the Fry Inlet Project claims overlaid is presented as the best available geological property map as Figure 6. A more detailed discussion and breakdown of the geological units in the Contwoyto – Nose lakes map area is presented in *Geology of the Contwoyto- Nose Lakes map area, central Slave Province, district of Mackenzie, N.W.T.* (King et al, 1990).



Simplified geological map of the Contwoyto Lake area. Unpatterened areas are drift-covered ground across which geology could not be extrapolated. CBV, Central volcanic belt; SB, Shallow Bay; T, Tuk Lake; W, Wishbone dome. (After King et al, 1992)

One further note regarding the geological mapping in the Contwoyto – Nose Lake by King et al (unpublished) and subsequent papers (King et al, 1989; King et al, 1992) is necessary. King et al (1989, 1992) do not appear to have mapped or attempted to delineate through geophysical interpretation any of the three main dykes swarms that are present in the Slave Province. Previous mapping in adjacent areas to the west and northwest (Tremblay, 1976; Bostock, 1980) provide ample evidence that northwest dykes (Mackenzie diabase) are common features in the area. This is an unfortunate omission given the association of kimberlite emplacement with weak structural zones that are also associated with dyke swarms. A comprehensive, detailed interpretation of dyke swarms in the Fry Inlet Project is not available.

The majority of the Fry Inlet Project area is underlain by 2585 +/-4 to 2582 +/-4 Ma (monazite) monzogranite (Figure 6). The monzogranite is categorized as part of a range of late Archean plutonic rocks ranging from anorthosite to granite that were emplaced between 2.70 Ga and 2.58 Ga (van Breemen et al. 1992). These late Archean plutonic rocks were emplaced during and after deformation and thermal peak metamorphism (King et al. 1992). Two main plutonic events, represented by the Concession Suite and Yamba Suite granitoids, underlie most of the NVR claims. The Concession Suite (predominantly tonalite) was emplaced during D2 peak thermal metamorphism, around 2610 Ma, while the younger Yamba Suite (predominantly monzogranite) was emplaced during post-thermal peak (syn D-3) retrograde metamorphism circa 2,585 Ma (King et al 1992). The Yamba Suite granitoid that locally underlies most of the Fry Inlet Project is referred to as the Pellatt Lake pluton and consists of predominantly monzogranite that ranges from granodiorite to syenogranite in composition. Peak metamorphism is constrained as high temperature (peak 800^{O} C) and low pressure (1 to 6 kbar) (Relf, 1989, 1992b). Post thermal retrograde metamorphism is thought to be associated with regional scale decompression (Relf, 1992b).

The northern most Fry Inlet claims (Block A, claims NVR 1 to 3) are underlain by one of three, late Archean (circa 2661 Ma), migmatitic turbidite units belonging to the Yellowknife Supergroup (YKG) and probably correlative with the Itchen formation turbidite mapped on the west side of Contwoyto Lake by Tremblay (1976). Migmatized turbidite is one of the most common lithological units in this part of the Slave Province. King et al (1989) note that migmatized turbidite is not a fundamentally different rock from the Contwoyto and Itchen Formation turbidite but is distinguished only on the basis of the percentage of leucosome present (20-30 %). Compositionally, the migmatite consists of varying percentages of biotite schist and granitoid leucosome. Two generations of leucosome are identified. The older leucosome is correlated with the C4 (biotite-hornblende tonalite) component of the Concession Suite granitoid while the younger, and more prevalent leucosome has not been correlated with any of the late Archean plutonic events. Regionally, the provenance of the turbidite is interpreted as intermediate to felsic plutonic and volcanic rocks while the biotite schist-turbidite protolith on the northeast part of the Fry Inlet Project is interpreted as mudstone and metagreywacke (Henderson, 1981; King et al, 1989).

Relf (1990) describes four Archean structural events in the Contwoyto – Nose Lake area.

1. D1 – prethermal peak isoclinal folding, faulting and cleavage development
2. D2 - synthermal peak isoclinal folding, faulting and cleavage development
3. & 4. D_{NE} and D_{NW} – post thermal peak NE and NW striking upright cross folding and crenulation cleavage development that are probably coeval.

Very little structural deformation or information is available for the area underlying the NVR claims, in part due to the small scale of the published figures and in part due to the predominantly plutonic geology. Some general observations concerning the structural setting of the Fry Inlet Project follow.

The northeast trending S-2 cleavage (D1 event) occurs around the eastern margins of the Yamba Suite and in the older Concession Suite while northwest trending S-2 cleavage is apparent only in the older Concession Suite units northeast and west of the Yamba Suite units. The YSG migmatitic turbidite wraps around the Yamba and Concession Suite plutons and the contacts with the granitoid units are bounded by northwest trending-southwest dipping reverse faults both to the northeast and southwest of the Fry Inlet Project. The northwest fault trend may be significant to airborne or ground geophysical interpretations because of the similar orientation of predominant regional trend of diabase dykes. The closest regional scale structure to the Fry Inlet Project is a northeast trending dextral transcurrent fault, cutting across the Wolverine monzogranite, some 40 km west of the Fry Inlet Project (not shown on Figure 4, see King et al, 1992). A northeast verging fold axis (late D-3 event) is noted in migmatitic turbidite a few kilometres west of NVR Block A. The northeast trend of the Wolverine monzogranite (Yamba suite) is consistent with the supposition by Relf (1990) that C6 type plutonism (e.g. Wolverine and Yamba Suite monzogranite) overlapped with the D_{NE} event, however no such relationship is evident in the shape or trend of the Yamba Suite monzogranite.

The Pellat Lake monzogranite (Yamba Lake Suite in Figure 6 and in this report) ranges in composition from biotite tonalite to biotite syenogranite but is predominantly characterized by K-feldspar porphyritic, coarse-grained biotite monzogranite (King et al, 1989). Zenoliths and enclaves of hornblende-biotite diorite, biotite tonalite and metasedimentary rocks, ranging from metres to several km in size, are also present. The pluton is typically non-foliated but is affected by F3 and F4 folding events which gives rise to local S3 and S4 foliations evident in the alignment biotite and flattened quartz (King et al, 1989). All of Blocks C and D and the south half of Block B lie within the Pellat Lake monzogranite. A small elliptical enclave (~2 km long) of biotite-hornblende (quartz) diorite occurs within the younger Pellat Lake monzogranite and straddles the north end of claims NVR13 and NVR14. King et al (1989, 1992) categorize the enclave as part of C4 chunky tonalite intrusive suite dated at 2608 +5/-3 Ma (zircon) and characterize the C4 tonalite as sheet-like or oval in map view with the long axis parallel to the structural grain of the host rocks. The northwest long axis of the intrusive underlying claims NVR 13 and 14 strikes west-northwest, approximately subparallel to the regional trend.

The north half of Block B and nearly all of Block A overlie a large (~25 km long) C4 suite biotite (hornblende) tonalite of the Concession Suite on the northeast flank of the Pellatt Lake monzogranite. The strike of this pluton is northwest and clearly parallels the regional trend. King et al (1989) state that C4 plutons typically display a very weakly to moderately developed foliation evident in alignment of ferromagnesian minerals and occasionally the shape of plagioclase and quartz. King et al (1992) also note that Concession Suite plutons were intruded along the S-2 fabric.

Regionally extensive diabase dykes that may be Paleoproterozic to Proterozoic in age are prevalent in and around the Fry Inlet Project. The three primary Paleoproterozic dyke swarms are identified in the Slave Province: the Malley, MacKay and Lac de Gras dykes. The Malley diabase dykes strike northeast and were emplaced around 2.23Ga. The MacKay diabase dikes form a widely spaced east-striking swarm emplaced around 2.21Ga. The third swarm, the Lac de Gras dykes, strikes 010°, converges north of the Lac de Gras area and were emplaced around 2.03Ga. These dyke swarms may be related to rifting and break-up along the eastern and southern borders of the Slave Province (LeCheminant et al., 1996). Dykes have higher relief in areas where they intersect less competent material (metaturbidites) and form depressions in regions of more competent material (granites and gneisses).

Based upon a visual inspection of the Urquhart Dvorak Ltd./High Sense Geophysics Limited airborne magnetic survey flown in 1993 (Hicks, 1994), the Fry Inlet Project appears to be dominated by Proterozoic dykes of the northwest striking Mackenzie dyke swarm, probably emplaced during a regional 1.27Ga rifting event that affected the entire Slave Province (LeCheminant et al., 1996). The dykes are coarse-grained and dark grey to green in colour with thickness up to 150m (Bostock, 1980). A few north by east trends are also apparent suggesting the presence of Lac de Gras dykes (010° trend). A major example of the 010° trend cuts across the east most margin of claim NVR12 and extends north to cross cut the east margin of block A (claims NVR 5, 6 and 3) (Map 1).

3.3 Discussion of Diamond Potential

Diamond exploration in the Northwest Territories prior to the early 1990's was conducted by a small group of companies and yielded only a few barren kimberlites, primarily in the Arctic Islands. A concerted effort by Chuck Fipke and others to study and trace the glacial dispersal patterns of kimberlitic indicator minerals in the western Slave Province eventually led to the 1991 discovery of diamondiferous kimberlite pipes in the Lac de Gras region. Since then, well over 200 kimberlites have been discovered in the Lac de Gras region, of which more than 20% are reported to be diamond-bearing (Kjarsgaard and Wyllie, 1993, 1994; Kjarsgaard, 1996; J. Armstrong, pers. comm., 1998). In October 1998, Canada's first diamond mine, Ekati, officially opened for production. The Diavik Diamonds Project, situated 30km southeast of Ekati, is currently undergoing feasibility studies and has submitted environmental reports required by the Canadian Environmental Assessment Act (Diavik Diamond Mines Inc., 1998).

There are at least five kimberlite emplacement ages known at present in the Slave Province including Ordovician, Jurassic, Middle and Upper Cretaceous, and Eocene. Kimberlites in the Lac de Gras area belong to the Cretaceous (73 to 75 Ma) and Eocene (52 +/- 1.2 Ma) periods, based on palaeontology of fossils and uranium-lead and rubidium-strontium dating of radiogenic minerals found in kimberlite pipes (Kjarsgaard, 1996; Nassichuk and McIntyre, 1996; Balzer and Dufresne, 1999). These Early Tertiary pipes are typically small, carrot shaped pipes that can be highly diamondiferous. The majority of the pipes have surface areas less than 10 ha, with many less than 2 ha. Although very small, several of the Ekati and Diavik pipes are high grade, up to 4.5 carats per tonne.

The distribution of known kimberlites in the central Slave Province follows a north-northwest orientation, with pipe clusters aligned orthogonal to the main trend (north-northeast and east-northeast). The Fry Inlet Project lies approximately 55km northeast of the Ekati mine. To date the closest documented kimberlite pipe is the DIA 1 kimberlite, which lies less than three km west of claim NVR20 (F66790) (Figure 2, Map 1). Although DIA 1 is diamondiferous (but non-economic) so far it represents only a single, isolated kimberlite occurrence. Exploration in this area is targeted at the discovery of a of kimberlite field, possibly related to the DIA 1 kimberlite. Two kimberlites are also located on the Kennecott/Tahera property, approximately 10km west of the Contwoyto Project. At least seven more kimberlites are known to occur approximately 20 to 25 km west and southwest on property held by Tanquery/Southern Era/Mill City/Cypango (Enersource, 2001). Exploration for diamonds by Diamondex Resources Ltd. is also ongoing on adjoining land, to the immediate south of the Fry Inlet Project, although no discovery of kimberlite in that area has been announced.

The regional geological and tectonic setting for the Fry Inlet Project is similar to that of the Lac de Gras kimberlite field, and favourable for the formation, preservation and transport to surface of diamonds. The presence of a diamondiferous (albeit non-economic) kimberlite pipe (DIA1) approximately three km to the west of the property, multiple kimberlite discoveries further to the west and south, and active diamond exploration south of the Fry Inlet Project suggests that the Fry Inlet Project area is a favourable region for new kimberlite pipe discoveries.

3.4 Exploration Target

3.4.1 Geological Characteristics

Diatremes tend to occur in groups or 'clusters' that may consist of as few as two (but more typically five) to in excess of forty individual bodies covering an area up to 50km in diameter. A series of clusters comprise a 'province'. Emplacement of kimberlites, lamproites and other related diatremes are controlled by deep seated regional fractures, and as such bear little relationship to the host geology. Host rocks can vary from heavily metamorphosed Archean aged granites, gneisses and migmatites to relatively undeformed, flat lying platform sediments.

Diatremes have been emplaced into the surrounding country rock from mantle derived magma intruded along deep fractures. At depth this magma forms a series of dykes and sills that are the 'root' zone of the diatreme. The actual diatreme is explosively emplaced at the intersection point of the deep fractures with cross features (fractures, dykes, etc.), possibly due to the process of gas fluidization or interaction with ground water. Enlargement of the vent and transport of deep (100 to 150km) mantle derived xenoliths contaminates the diatreme with a mixture of exotic fragments. Transport time from the mantle depths to surface occurs in debatable, but may be less than 10 hours. Turbulence in the vent causes brecciation of dense material, and ejection of finer fragments. As pressure drops, near surface olivine is serpentinized and blocks of country rock settle into the magma, reaching depths far below their original stratigraphic location. Tuffaceous material and less explosive magma may be emplaced during cooling, and the pipe can be re-intruded at any time by material with a significantly different composition. This multiphase process results in a non-uniform, heterogeneous diatreme.

Kimberlite pipes are generally oval or elliptical in plan view with long axes parallel to local structural lineaments and ranging from less than 50m, to more than 1500m in diameter. A steep sided (80-85°), carrot shaped extension narrows at depth, where the root zone is associated with dykes and sills. Small lobes or apophyses may branch off from the larger pipe. The crater formed at surface is commonly ringed by ejecta and infilled by epiclastic material. Contacts of the crater with the country rock are shallower than those within the pipe zone, often dipping at an angle of less the 50°. Sedimentation may completely bury all traces of the crater. Erosion can expose the diatreme to any level, from the crater to the pipe and even down to the root zone. Most economic kimberlites range in age from Jurassic (190 to 135Ma) to Cretaceous (135 to 65Ma) although exceptions are common (e.g. the Premier Pipe is estimated to be 1.2Ga).

Lamproites tend to be less explosive in nature (pyroclastic), more variable in age, and hosted by Proterozoic rocks that rim the Archean craton (referred to as the 'proton' in some classification schemes). Lamproite vents are commonly at a shallower angle than those of kimberlite, and the crater is more extensive.

3.4.2 Geochemical Characteristics

In a good grade gold deposit of 0.6 ounces per tonne, gold occurs in concentrations of around 200 parts per million. By contrast, a good grade diamond deposit of 35 carats per 100 tonnes contains diamond in concentrations of less than 0.06 parts per million. In diamond exploration it therefore becomes more practical to explore for other, more common, minerals that have known associations with diamondiferous host bodies (i.e. pyrope garnets, chrome diopsides, ilmenites and chromites). These minerals are commonly present in concentrations several orders of magnitude greater than the diamonds. Their range of composition reflects the composition of the source rock as well as the pressure and temperature under which it equilibrated. However, the compositions of these minerals when in equilibrium with diamond are relatively restricted and they serve as characteristic indicator minerals for diamond bearing source rocks.

Geochemical sampling programs target indicator minerals derived from the erosion of the host body. The exploration program, in theory, searches for a broad dispersion train created by the erosion and transport by glaciation and fluvial processes, rather than a small discrete target. Unfortunately the dispersion process also decreases the concentration of indicators, to the point where one or two grains in a 20kg sample may be significant.

The primary agent for both erosion and dispersion of indicators from a kimberlitic source body in Canada is glaciation. The distribution or dispersion train of mineral grains will vary laterally, vertically and directionally. Lateral distribution refers to the shape of the down-ice spread of mineral grains (i.e. a linear or fan shaped trail). Vertical dispersion relates to the fact that material scoured by a glacier must climb through the till profile along gently dipping shear planes. The distance down-ice from the source at which they become exposed depends on the thickness of the till and the angle of the internal shear planes. The direction of glacial transport is defined by the ice flow direction, and complicated by multiple ice advances.

3.4.3 Geophysical Characteristics

As with all geophysical techniques, the identification of diatremes depends on the recognition of a characteristic signature or response. The nature and size of the response depends not only on the internal character of the diatreme (magnetite content, alteration, etc.), but also on the relative contrast with its host rock. Geophysical responses vary from 'province' to 'province', cluster to cluster, pipe to pipe and even within individual diatremes. The two most cost effective geophysical parameters to collect at an exploration stage are magnetics and electromagnetics. An isolated magnetic anomaly, either positive or negative, is a target by definition. Coincident magnetic and EM anomalies are a priority, while an EM conductor without a magnetic anomaly may simply indicate lake bottom sediments or an area slightly less resistive than background.

The collection of total magnetic field data is affected by fluctuations in the field as a result of natural variations (diurnals, magnetic storms, etc.). Most erroneous data and diurnal fluctuations can be mitigated by using base station information, micro-levelling techniques and other strategies, but false anomalies may still be induced in the data. These are not likely to be confused with diatremes but may distort the map.

Magnetic anomalies are due to the presence of magnetite and/or magnetic ilmenite, and fresh kimberlites can contain up to 5 or 10% of these iron oxides. Such anomalies are nearly always present, even though in some situations they may be very weak (due to weathering effects, remanence, or variations in magnetite content) and difficult to detect. Unweathered kimberlites and lamproites may have a strong magnetic signature. Magnetic anomalies are not 'masked' by overburden, but merely become broader and more diffuse as the sensor to source distance increases. Lithological or mineralogical variations (multiphase magma emplacement, internal magnetite content, xenoliths, etc.) within the diatreme will also complicate the picture. Glacial dispersion of magnetite rich boulders does not usually create significant magnetic anomalies.

Due to a relatively high porosity and permeability, diatreme material weathers rapidly. The uppermost part of the pipe breaks down into a disc shaped, lower density, highly conductive, clay rich horizon depleted in iron, calcium and magnesium, and readily detectable by EM techniques. A more modest, but still measurable, conductivity anomaly in fresh kimberlites is due to the serpentinization of olivine during initial diatreme emplacement. Edge effects should be evident, subject to the presence of a vertical discontinuity between the pipe and the host rock. Conductive overburden, clay rich lake sediments, organic deposits (peat, etc.) and the active layer associated with permafrost terrains will tend to mask or complicate any conductivity response.

Ideally, in plan view a diatreme target would show a circular to elliptical conductivity response coincident with a strong magnetic anomaly (positive or negative) of slightly smaller diameter - due to the convergent shape of the pipe and the depth of weathering. A similar pattern would be evident on profile data. However, since geological models are usually simplified, and geophysical responses vary for any number of reasons, real life signatures may be significantly different.

The geological scenario anticipated on this property comprises a diatreme emplaced into Archean rocks without overlying platform sediments, or subjected to subsequent erosion of the sediments and the upper part of the vent (e.g. crater facies) by glaciation. This example is the most difficult geophysical situation and typical of what would be expected over much of the Canadian Shield. Development of a weathering profile would be variable, and partially dependant on the depth to which the pipe had been eroded (the root zone is relatively resistant to weathering). The host rock also contains variable amounts of magnetite, resulting in a complex series of responses. Magnetic data may need to be enhanced to unambiguously detect the diatreme. Since both diatreme and host are relatively resistive, there may not be a strong conductivity contrast. Geophysical data must be collected, processed and interpreted with care.

4.0 EXPLORATION TO DATE

4.1 Introduction

Exploration work in the Contwoyto Lake area prior to 1992 targeted gold and base metals, is not particularly relevant to the current claims and will not be described further. As discussed above, geological mapping by the GSC in the vicinity of the Fry Inlet Project area has been undertaken (King et al, 1989, 1990, 1992) but no usable map was ever produced. Geological mapping of the current Fry Inlet claims was not undertaken by the previous operators or Navigator. The following sections describe exploration programs undertaken since 1992, including a brief history of previous diamond exploration, review of the existing airborne geophysical data, ground geophysical surveys, diamond drilling and till sampling.

4.2 Previous Diamond Exploration

In early 1992 New Dolly Varden Minerals (NDVM) acquired 102 claims covering 227,327 acres (94,022.9 ha) in the Contwoyto / Pellat Lake area, including ground covered by the current Fry Inlet Project. These claims were co-held with Benachee Resources Inc. A regional till sampling program for kimberlite indicator minerals was undertaken by Canamera Geological Ltd. in 1993 on behalf of NDVM. A total of nine out of 182 samples collected returned small populations of kimberlite indicator minerals. Also in 1993, Urquhart Dvorak Ltd. (later High-Sense Geophysics Ltd.), on behalf of NDVM, conducted low level helicopter borne magnetic, electromagnetic and apparent resistivity surveys. The survey was conducted at a 200 m east –west line spacing and 60 m aircraft height (with the magnetic sensor 15m below the helicopter and the electromagnetic sensor 30m below the helicopter). Ground location control utilized a tracking camera, radar altimeter and GPS. A total of 4,825 line km of data were recorded and compiled. Forty-one potential diatreme targets (including eight 1st priority, eleven 2nd priority and nineteen 3rd priority targets) were identified (Hicks, 1994). The geophysical portion of the assessment report (Hicks, 1994) and paper maps of the airborne survey at 1:50,000 scale are available at the NWT Mining Recorders office in Yellowknife.

In 1994, another 1,145 bulk till samples were taken by Canamera Geological Ltd (Canamera) on behalf of NDVM to follow up previously identified anomalies. Canamera reported that numerous kimberlite indicator mineral anomalies were confirmed and numerous kimberlite indicator mineral dispersion trains were identified (Hicks, 1994; Jones, 1997).

By 1995 NDVM had reduced the DIA property to 28 claims in two non-contiguous blocks of 64,113.9 acres (25,946.9 ha) held jointly by Lytton Minerals Ltd., New Dolly Varden Minerals and Benachee Resources. In 1995 Canamera Geological Ltd., on behalf of Lytton Minerals and New Dolly Varden, reprocessed 79 previously collected regional till samples. Kimberlite indicator mineral grains were recovered from some samples that were previously believed to be barren. On the basis of this and previous results three drill targets were selected, DIA-1, DIA-2 and DIA-3 (Jones, 1997).

In 1996 Canamera, on behalf of Lytton Minerals and New Dolly Varden, supervised a program of four diamond drill holes for a total of 3,591.1 ft. (1,094.6 m) completed on the three DIA targets. Two drill holes on the DIA-1 target intersected a weakly diamondiferous (non-economic) kimberlite. A total of 48 diamonds with a total weight of 0.0085 carats were collected from a total sample weight of 174.1kg of drill core. Granitoids and diabase were intersected on the DIA-2 and DIA-3 targets (Jones, 1997).

Covello, Bryan and Associates (CBA), on behalf of Navigator, carried out ground geophysical surveys and diamond drilling between April 4th and June 10th 1999. This work is presented and reviewed below in sections 4.2.1 to 4.2.3. Details of a limited ground checking program on July 27th and July 28th 2000 are presented in section 4.2.4. A general disscussion of results in presented in section 4.2.5. A project cost schedule and a list of contractors and project personnel are provided in Appendices II and III, respectively.

4.3 Review of Airborne Geophysical Survey

Covello, Bryan & Associates Ltd. (CBA), on behalf of Navigator Exploration Corp., (NVR) reviewed the airborne geophysical survey data available from assessment work filed by new Dolly Varden Minerals in 1994 (Hicks, 1994). The objective was to identify possible kimberlite targets for ground geophysical follow-up in the spring of 1999. The airborne data reviewed and included in the assessment file includes composite 1:50,000 scale paper maps of total field magnetics, EM anomalies, and apparent resistivity (35,619 Hz). The original 1:20,000 scale map sheets from this survey are not in the assessment file. The survey was flown and processed by Urquhart Dvorak Ltd. in 1993. No report on the airborne data review and target selection process by CBA is available, but thirty-two possible kimberlite targets were identified for acquisition and ground follow-up. CBA produced a line drawing interpretation of potential diabase dykes in the Fry Inlet Project area (included on Map 1).

Later review and ground follow-up of the original thirty-two selected targets led to the exclusion of two targets. Topographic highs were interpreted to cause anomalies on grid targets 8 and 24. No ground geophysical surveys were carried out on these two targets, and their location was not recorded on any map provided by CBA. Subsequent review of the project data determined that anomaly 8 was probably located on the northwest corner of claim NVR 11 and anomaly 24 was probably located on the western most portion of claim NVR 23. Only the thirty ground targets on which ground geophysical surveys were actually undertaken are shown on Map 1.

4.4 1999 Ground Geophysical Surveys

CBA conducted ground geophysical surveys over thirty targets in the spring of 1999. The grid locations and targets are shown on Map 1. Magnetometer surveys were completed on all thirty grids (1 to 7, 9 to 23, and 25 to 32) for a total of 188.83 line km. In addition, horizontal loop electromagnetic (HLEM) surveys were carried out over twelve grids (2, 3, 11, 14, 15, 17, 20, and 25 to 29) for a total of 44.72 line km (Table 1). All of the grids were surveyed using east-west oriented traverse lines at 80m line spacing and 20m stations. A few of the more interesting ground anomalies were subsequently infilled with more detailed surveys at 40m line spacing.

Colour contoured maps of the ground magnetometer (total field) geophysical surveys are presented as Maps 2 to 35 in a separate appended Map Folio. Most ground geophysical maps are at 1:2,000 scale, however, Maps 3 and 4 are at 1:2,500 scale. Where available, HLEM line profile plots of in-phase and quadrature data are overlaid on the colour contoured magnetic maps. Usually only the 28160 Hz HLEM frequency profile is plotted although in a few instances (Grids 2, 11, and 20) the 14080 Hz frequency data is also plotted. A contoured best fit conductivity plan is overlaid on the contoured total magnetic field for Grid 25 (Map 28).

A summary of all the targets identified by CBA and the results of the ground geophysical surveys is tabulated and presented in Appendix IV. Included in this summary are brief descriptions of size, shape, quality, location of anomalies, ground checks, geology, comments and recommendations. A detailed description of all higher interest targets follows in this section. Section 4.5 will discuss the targets selected for drilling and drill results. The ground geophysical survey digital data is provided on diskette in ASCII file format (*.xyz) in Appendix V.

Ground geophysical survey results led to the identification of four high priority targets (Grids 11, 17, 25 and 29), two medium priority targets (Grids 15 and 28) and three low priority targets (Grids 27, 14 and 26). The remaining twenty-two surveyed grids (1 to 7, 9, 10, 12 to 14, 18 to 23, 26, and 30 to 32) did not have geophysical signatures suggestive of kimberlite pipes. Targets identified by CBA were reviewed by Navigator who selected Grids 11, 15, 17, 25 and 28 for follow up diamond drilling. CBA priority grid target 29 occurred in area of complex dyke patterns and consequently was of lower priority. A brief description of the geophysical characteristics of the targets selected for drilling follows.

The Grid 11 target is an approximately 310 by 140m magnetic low (~170nT) that lies under a lake (Maps 1, 12 and 13). The magnetic low has linear trend (northwest) and extends over three lines (L320, L400N and L480N). Weak HLEM quadrature responses were noted on the northern edge of the anomaly (L480N) but no significant EM response occurs directly over the magnetic low target.

TABLE 1
GROUND GEOPHYSICAL SURVEYS - LINE Km per CLAIM

CLAIM				MAG (line km/claim)	MAG (line km-Off Claim)	HLEM (line km/claim)	HLEM (line km-Off Claim)	TOTAL LINE KM (within claims)		TOTAL LINE KM (outside of claims)		TOTAL LINE KM SURVEYED (within & outside of claims)	
Name	#	GRID #	GRID (line km)					MAG	HLEM	MAG	HLEM	MAG	HLEM
NVR1	F66801	1	11.94	11.94	0.00	0.00	0.00	11.94	0.00	0.00	0.00	11.94	0.00
NVR 2	F66772	2	8.80	4.95	0.00	2.40	0.00	4.95	2.40	0.00	0.00	4.95	2.40
NVR 3	F66773	2	8.80	3.85	0.00	1.80	0.00	3.85	1.80	0.00	0.00	3.85	1.80
NVR 4	F66774	4	4.16	4.16	0.00	0.00	0.00						
NVR 4	F66774	5	7.48	1.36	0.00	0.00	0.00	5.52	0.00	0.00	0.00	5.52	0.00
NVR5	F66775	(none)										0.00	0.00
NVR6	F66776	(none)										0.00	0.00
NVR7	F66777	5	7.48	6.12	0.00	0.00	0.00	6.12	0.00	0.00	0.00	6.12	0.00
NVR 8	F66778	27	5.96	3.32	2.64	2.22	2.22	3.32	2.22	2.64	2.22	5.96	4.44
NVR 9	F66779	6	5.60	5.60	0.00	0.00	0.00	5.60	0.00	0.00	0.00	5.60	0.00
NVR 10	F66780	7	4.90	4.60	0.30	0.00	0.00	4.60	0.00	0.30	0.00	4.90	0.00
NVR 10	F66780	30	4.90	4.90	0.00	0.00	0.00	4.90	0.00	0.00	0.00	4.90	0.00
NVR 11	F66781	9	5.60	5.60	0.00	0.00	0.00	5.60	0.00	0.00	0.00	5.60	0.00
NVR 12	F66782	11	7.75	7.75	0.00	2.80	0.00						
NVR 12	F66782	12	5.90	4.78	0.00	0.00	0.00						
NVR 12	F66782	13	8.89	8.90	0.00	0.00	0.00						
NVR 12	F66782	14	6.14	6.14	0.00	4.56	0.00						
NVR 12	F66782	28	4.77	4.77	0.00	1.62	0.00						
NVR 12	F66782	32	6.40	1.60	0.00	0.00	0.00	33.94	8.98	0.00	0.00	33.94	8.98
NVR 13	F66783	12	5.90	1.12	0.00	0.00	0.00						
NVR 13	F66783	15	4.76	3.24	0.54	2.94	0.58						
NVR 13	F66783	32	6.40	4.80	0.00	0.00	0.00	9.16	2.94	0.54	0.58	9.70	3.52
NVR 14	F66784	15	4.76	0.84	0.14	0.54	0.00	0.84	0.54	0.14	0.00	0.98	0.54
NVR 15	F66785	16	6.12	5.29	0.83	0.00	0.00						
NVR 15	F66785	17	4.76	4.76	0.00	4.76	0.00	10.05	4.76	0.83	0.00	10.88	4.76
NVR 16	F66786	18	4.79	4.79	0.00	0.00	0.00						
NVR 16	F66786	31	12.00	12.00	0.00	0.00	0.00	16.79	0.00	0.00	0.00	16.79	0.00
NVR 17	F66787	19	4.76	4.76	0.00	0.00	0.00	4.76	0.00	0.00	0.00	4.76	0.00
NVR 18	F66788	20	4.67	4.67	0.00	4.68	0.00						
NVR 18	F66788	21	4.16	2.56	1.60	0.00	0.00						
NVR 18	F66788	29	6.14	6.14	0.00	1.80	0.00	13.37	6.48	1.60	0.00	14.97	6.48
NVR 19	F66789	(none)										0.00	0.00
NVR 20	F66790	3	4.20	3.60	0.60	3.57	0.63	3.60	3.57	0.60	0.63	4.20	4.20
NVR 21	F66791	26	6.02	6.02	0.00	6.02	0.00	6.02	6.02	0.00	0.00	6.02	6.02
NVR 22	F66792	10	6.45	5.60	0.85	0.00	0.00	5.60	0.00	0.85	0.00	6.45	0.00
NVR 23	F66793	22	5.60	5.60	0.00	0.00	0.00						
NVR 23	F66793	23	6.40	6.40	0.00	0.00	0.00						
NVR 23	F66793	25	8.80	8.80	0.00	1.58	0.00	20.80	1.58	0.00	0.00	20.80	1.58
TOTALS			**188.83**	**181.33**	**7.50**	**41.29**	**3.43**	**181.33**	**41.29**	**7.50**	**3.43**	**188.83**	**44.72**

Grid 15 is an approximately 200 by 75m magnetic low that occurs over three lines (L160N, L240N and L320N) along a northeast trend and lies under a lake (Maps 1 and 17). Weak HLEM quadrature responses are coincident with the magnetic low on L240N and L320N. The coincident HLEM anomaly and magnetic low was selected as the drill target instead of the strongest portion of the magnetic low.

The grid 17 target is a double lobed, magnetic low, approximately 250 (east-west) by 130 m (north south) in diameter (Maps 1, 19 and 20). The majority of the anomaly lies on land but a small portion at the southeast end extends under a lake. No significant HLEM response occurs over the magnetic low. The eastern lobe of the magnetic low is the stronger (lower) part of the anomaly and was selected as the drill target.

The grid 25 target is a pear to oval shaped magnetic low, trending east-west on lines L240N and L320N at the widest portion (Maps 1, 27 and 28). The centre of the magnetic low occurs almost exactly over the shoreline of a lake while the western tail extends across a narrow strip of land between two lakes. A strong, north-south magnetic high, interpreted as a diabase dyke, sharply brackets the eastern margin of the anomaly under the lake. Weak HLEM responses are coincident with the magnetic low (L240N) and the contact with the dyke (L280N).

The grid 28 target is a curvilinear magnetic low, aligned along a roughly west-northwest trend, that is embayed by a moderate magnetic signature on the north side (Maps 1 and 31). The main anomaly extends over two lines (L160N and L240N) and lies mostly beneath a small lake. No significant HLEM response was recorded over the magnetic low. The strongest part of the magnetic low, selected as the drill target, is centred over the lake shoreline and is approximately 65 (east) by 50m (north) in size.

There are seven grids (2, 4, 6, 14, 27, 30 and 32) that were not drill tested but retain some interesting features and deserve additional comment. At this time they are lower priority targets. CBA originally assigned low ratings to grids 14 and 27 and did not identify a target on Grids 2, 4, 6, 30 and 32. Additional work, including further review and interpretation of the airborne geophysics, additional ground geophysical and/or geochemical compilation may upgrade these targets.

On grid 2 there is there is a doubly lobed feature with a magnetic high underlying a lake that barely extends over lines L160N and L240N (Maps 1, 3 and 4). The west lobe of the magnetic high is approximately 160 by 130m (north by east) while the stronger east lobe (~-160nT) is approximately 160 by 80m (north by east). There is no significant HLEM response over the magnetic low. Regionally, a northwest diabase dyke cross cuts the eastern margin of the airborne anomaly. Grid 2 is one of only two grids on the Fry Inlet property that appears to be within the domain of the YSG migmatitic turbidite rather than late Archean granitoid. Pending further review, grid 2 may represent a valid drill target.

The target on Grid 4 consists of a series of at least three spot magnetic highs on an east-west linear trend (Maps 1 and 6). This target is coincident with a Canamera second priority geophysical anomaly (B3/17) shown on the 1:50,000 DIA Property Compilation Map available in the assessment files (Hicks, 1994), however, the anomaly is not described in the accompanying geophysical report. Ground checking of the grid in 2000 determined that there was not enough outcrop in the area to account for the magnetic high and that the boulders and outcrop in the area (granodiorite) generally displayed low magnetic susceptibility. Grid 4 remains as an unexplained anomaly and potential drill target.

Ground geophysical surveys on grid target 6 did not replicate the circular magnetic low evident in the original airborne survey, but there are small magnetic lows on the eastern margin of the grid (L240N/300E and L320N/360E) that suggest a target could lie east of the surveyed grid (Maps 1 and 8). Pending further review, additional ground geophysics may be warranted.

Ground magnetic survey results for grid target 14 do not correspond well with the targeted airborne anomaly (Maps 1 and 16). The best target on this grid is a moderately strong magnetic low, aligned north-south on the northeast corner of the grid. The targeted airborne magnetic low is not strong and the linear trend in the ground magnetics are not favourable features, however, the magnetic low on the northeast portion of the grid may warrant further ground checking and ground geophysics.

Grid 20 contains a multi-lobed, magnetic high over a broad area, predominantly beneath a small lake (Maps 1 and 23). A distinct double lobed, strong magnetic high aligned along a northeast trend forms the core of the anomaly. Ground checking revealed no outcrop on the adjacent land that might account for the magnetic high (see section 4.2.5). The anomaly may be associated with an east-northeast diabase dyke that is apparent on the airborne magnetic data (Hicks, 1994) but not delineated in the CBA diabase interpretation shown on maps in this report. The ground survey coverage appears to be insufficient and surveying over a larger area is required to determine the context of the magnetic highs.

Grid 27 contains a broad east-west trending magnetic low approximately 150 by 500m in size and located under a lake (Maps 1, 30 and 31). Approximately half of the anomaly is north of NVR 8. This anomaly is coincident with Canamera anomaly A13/15 (Hicks, 1994), described as the central portion of a large (2.8 km diameter) airborne anomaly, where the outer margin might be indicative of diatreme ejecta (Hicks, 1994). Additional land acquisition may be necessary to fully evaluate this feature.

A magnetic high on grid 30 consists of several spot magnetic highs, including two small double lobed features, along an east-northeast trend (Maps 1 and 33). Brockman (2000) did not see any outcrop or subcrop that might explain the magnetic highs. The best target is a circular magnetic high (~100nT), some 60m in diameter, located on the northeast corner of the grid (L400N/350E) adjacent to the lake shoreline. Further ground checking and possibly an extension of the geophysical grid to the north and east may be required to put this anomaly in context.

Ground geophysics on grid 32 outlined a broad, horseshoe shaped magnetic low anomaly (opening to the south) that consists of a string of small, single line lows mostly under a lake and encircling a small point of land (Maps 1 and 35). The central part of the horseshoe (on land) contains a moderately high magnetic signature. The unusual shape and setting of the anomaly warranted ground checking (see section 4.2.5). Brockman (2000) identified outcrop near the centre of the magnetic high and subcrop along the shoreline (granodiorite and pegmatite) with high magnetic susceptibilities (average 4.63 and 5.61nT respectively). Brockman postulated that the magnetic low was the result of the central magnetic high on a hillside location. The unusual shape and setting of the anomaly warrants a further review of the airborne geophysical data.

Two proposed grid targets (8 and 24) were discarded by CBA during field operations as due to topographic highs and were not surveyed. Originally, these anomaly locations were excluded from the database. Subsequent investigations suggest that the grid 8 target is located on the northwest part of claim NVR 11. Brockman (2000) ground checked this area and described the location as lowlands, an observation supported by 1:50,000 scale topographic map (76E/1). Similarly, the location of grid 24 target on the western portion of claim NVR 23, appears to lie in an area with no significant topographic relief on the 1:50,000 scale NTS map 76E/8. The target from Grid 8 warrants follow-up ground geophysical surveys. Pending ground checking, the grid 24 target may be a valid target for follow-up ground geophysical surveys.

A more rigorous review of the existing airborne data might generate additional targets for ground follow-up.

4.5 1999 Diamond Drill Program

CBA undertook a drill program on behalf of NVR between May 28 and June 10th 1999. Operations were supervised by Navigator personnel. Five diamond drill holes (NQ core) for a total of 523m were completed on grid targets 11, 15, 17, 25 and 28 (Table 2, Maps). All of the targets were chosen on the basis of results from the ground geophysical surveys described above. Note that the drill hole nomenclature is a composite of year, grid and hole, for example, 99-11-01 refers to drill hole #1 on grid target 11 drilled in 1999. A brief description of the drill holes follows. A summary section through the geophysical anomaly is also provided. Refer to Appendix VI for drill logs.

Drill hole 99-11-01 tested a magnetic low under a lake (Maps 1, 12 and 13). The hole was collared on land at L360N/150E and drilled at an azimuth of 034° and dip of -45° in order to intersect the centre magnetic low (Figure 7). Brockman (2000) visited the site in July 2000 and found the drill core stored on site beside the lake. The drill hole intersected altered granite to the end of the hole at approximately 108 m and is considered to have adequately tested the target. No magnetic susceptibility information was collected.

Drill hole 99-15-01 tested a weak magnetic low underlying a lake that is partially coincident with a weak HLEM quadrature response (Maps 1 and 17). The hole was

TABLE 2
DIAMOND DRILL HOLE SUMMARY

DRILL HOLE	CLAIM	TARGET	UTM COLLAR LOCATION (m)[1.] Easting (m)	Northing (m)	AZ	DIP	GRID COLLAR LOCATION[2.] X (m)	Y (m)	Z (m)[3.]	OB (m)	TOTAL LENGTH[4.] (m)	TRUE X (Horz.) (m)	TRUE Z (Depth) (m)	RESULTS	COMMENTS
99-11-01	NVR 12	Co-incident NW trending linear mag low and weak HLEM quadrature low under lake.	538142	7225420	34	-45	150W	360N	468	7.1	108	42.3	90.6	Altered granite.	Drill log included in appendix. Ground check by S. Brockman in July 2000. Drill core stored on site. Two drill core rep samples taken by S. Brockman and altered granite reported.
99-15-01	NVR 13	Co-incident NE trending weak mag low and HLEM anomaly under lake.	535722	7221790	129	-45	70E	265N	475	12.2	110	50.8	97.6	Granodiorite.	Drill log included in appendix. Anomaly explained.
99-17-01	NVR 15	Moderately strong mag low-consists of two distinct lobes. Eastern lobe was targeted.	532065	7225127	235	-45	20E	320N	450	13.40	104	73.5	73.5	Granodiorite with ~5% amphibole.	Drill log included in appendix. Anomaly explained.
99-25-01	NVR 23	Coincident small mag low and weak HLEM quadrature low under lake-approximately 50m west of NNW dyke (interpreted from airborne data).	521702	7227357	270	-45	200E	240N	445	14.20	101	71.4	71.4	Diabase, syenite and granodiorite intersected.	Drill log included in appendix. Fault zone may explain weak HLEM quadrature anomaly. Porphyritic syenite between diabase and granite might explain mag low.
99-28-01	NVR 12	Southeast lobe of WNW trending mag low under a lake.	538380	7223488	351	-45	60E	100N	470	13.7	100	70.7	70.7	Granitic pegmatite with amphibole.	Drill log included in appendix. Ground check by S. Brockman in July 2000 located two drill collars one metre apart (hole re-started). Drill core stored on site. Four drill core rep. samples taken. Anomaly explained.
							TOTAL DRILLED (m) =				523				

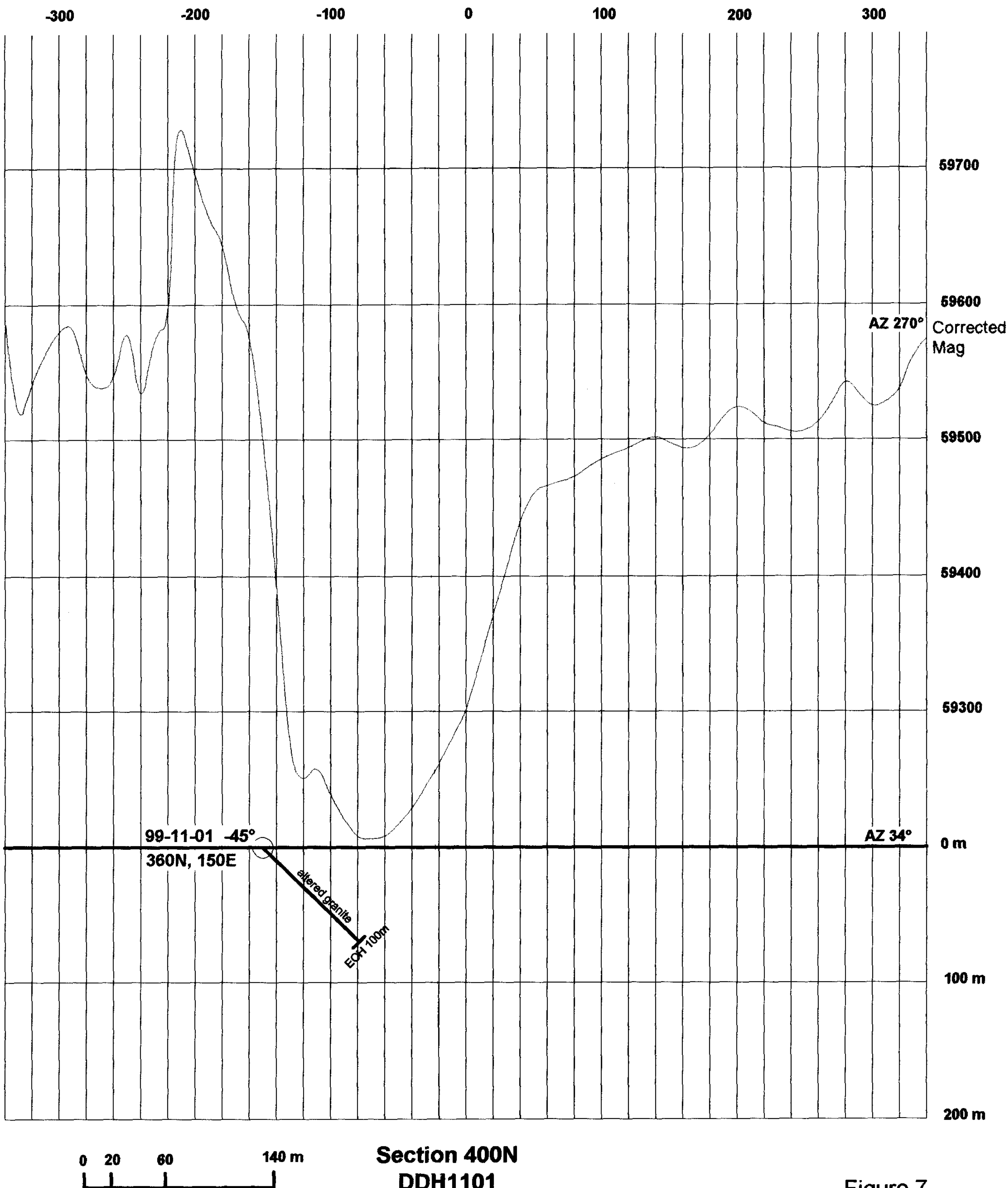
1. UTM locations for drill holes 99-11-01 and 99-28-01 from ground check of locations by S. Brockman in July 2000
2. Grid collar location X and Y values shown on corresponding ground geophysical maps.
3. Z (elevation above sea level) estimated from approximate drill hole locations on 1:50,000 topographic map.

collared on the lake at 265N/70E and drilled at an azimuth of 129° and dip of –45° (Figure 8). The target was on a weaker portion of the magnetic low in order to test the magnetic low coincident with the HLEM quadrature response. Granodiorite was intersected to the end of the hole at 110 m. The drill hole is considered to have adequately tested the magnetic low target, but no magnetic susceptibility measurements were taken on the drill core. Lake bottom sediments might be the cause of the HLEM quadrature response.

Drill hole 99-17-01 tested the east lobe of a double lobed magnetic low, predominantly onland with a small southeast portion under a lake (Maps 1, 19 and 20). The drill hole was collared on land at 320N/20E with an azimuth of 235° and dip of –45° (Figure 9). An intersection of 13.4m of overburden was followed by massive granodiorite with approximately 5% amphibole to the end of the hole at 110m. The eastern lobe of the target is considered to have been adequately tested. In light of the negative results no follow-up is required to test the weaker western lobe of the anomaly. No magnetic susceptibility measurements were made on the drill core.

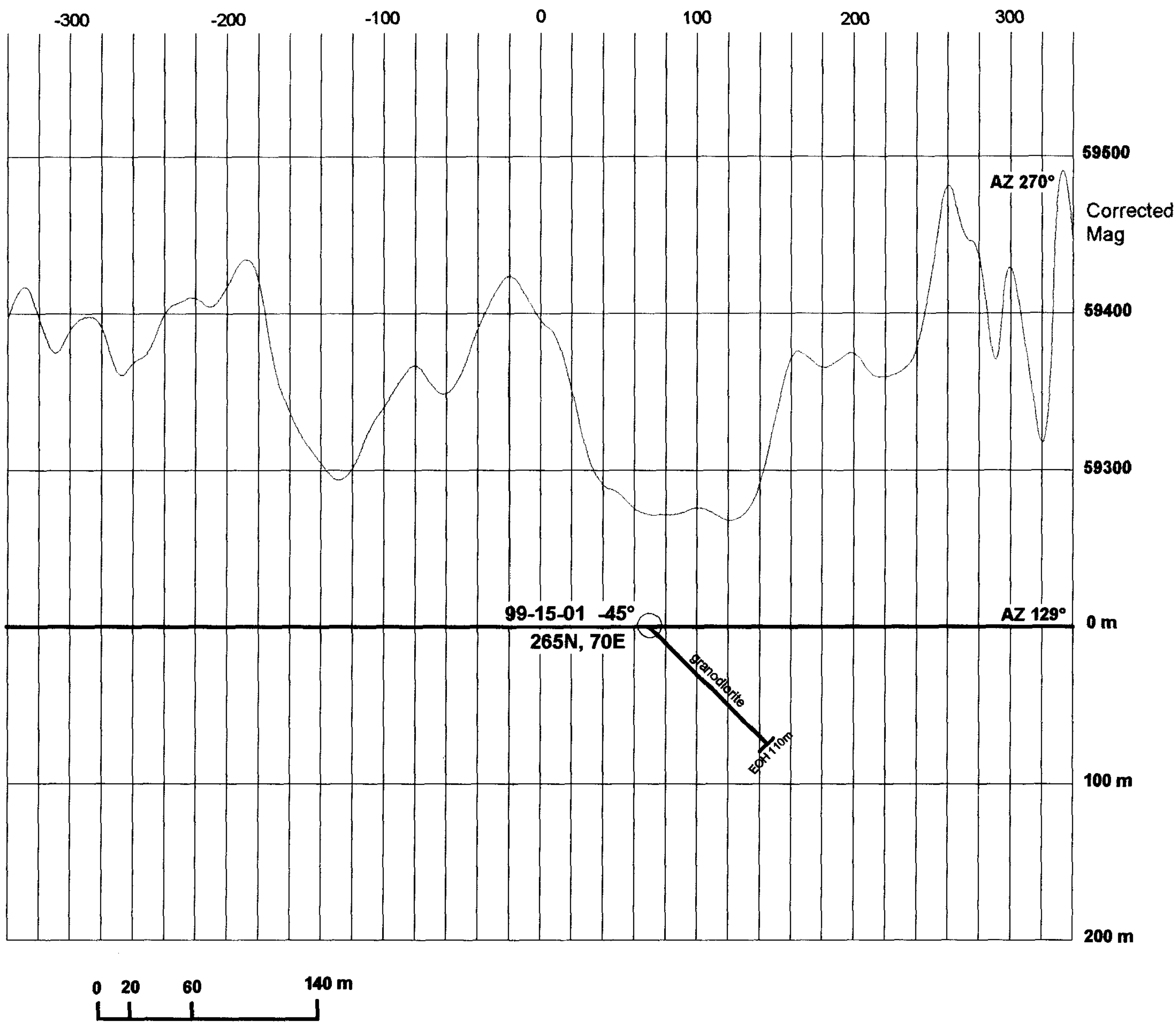
Drill Hole 99-25-01 tested a small magnetic low within a generally east-west trend and a coincident weak HLEM quadrature response (low) whose eastern portion lies under a lake (Maps 1, 27 and 28). A linear north-south magnetic high, indicative of a diabase dyke, sharply brackets the eastern margin of the magnetic low. The drill hole was collared on the lake at 240N/200E at an azimuth of 270° and dip of –45° (Figure 10). 99-25-01 intersected 14.2 m of lake/overburden, 23.5 m of diabase, 36.3m of porphyritic syenite and 27.0 m of massive granodiorite to the end of the hole at 101m. The diabase dyke intersected at the top of the hole is consistent with the ground magnetic survey data. A fault zone (61.5 to 74.0m), consisting of broken core and fault gouge, occurs at the lower contact between the porphyritic syenite and granodiorite. The porphyritic syenite was interpreted as the most likely cause of the magnetic low and the fault zone as the cause of the weak HLEM quadrature response. The target is considered to have been adequately tested.

Drill hole 99-28-01 tested a small magnetic low at on the southeast part of linear west-northwest trend (Maps 1 and 31). Brockman (2000) visited the site in July 2000 and found the drill core stored on site beside the lake. The drill core was collared from L100N/60E at an azimuth of 351° and dip of –45° (Figure 11). Core was described as granitic pegmatite with amphibole to the end of the hole at approximately 100m. It is likely that the unit is similar or the same as the massive granodiorite described in logs for drill holes 99-17-01 and 99-25-01. The target is considered to have been adequately tested.



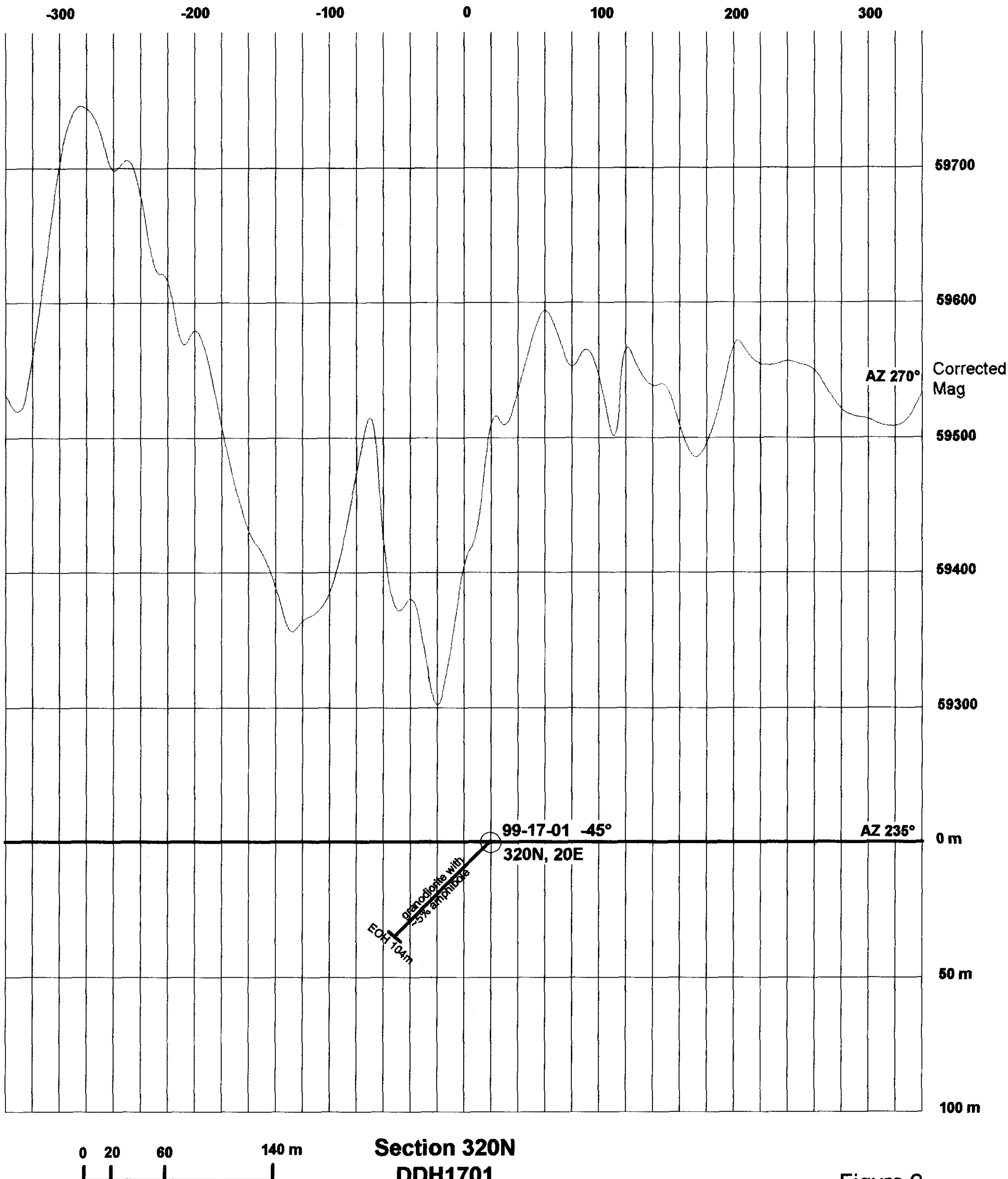
Section 400N
DDH1101

Figure 7



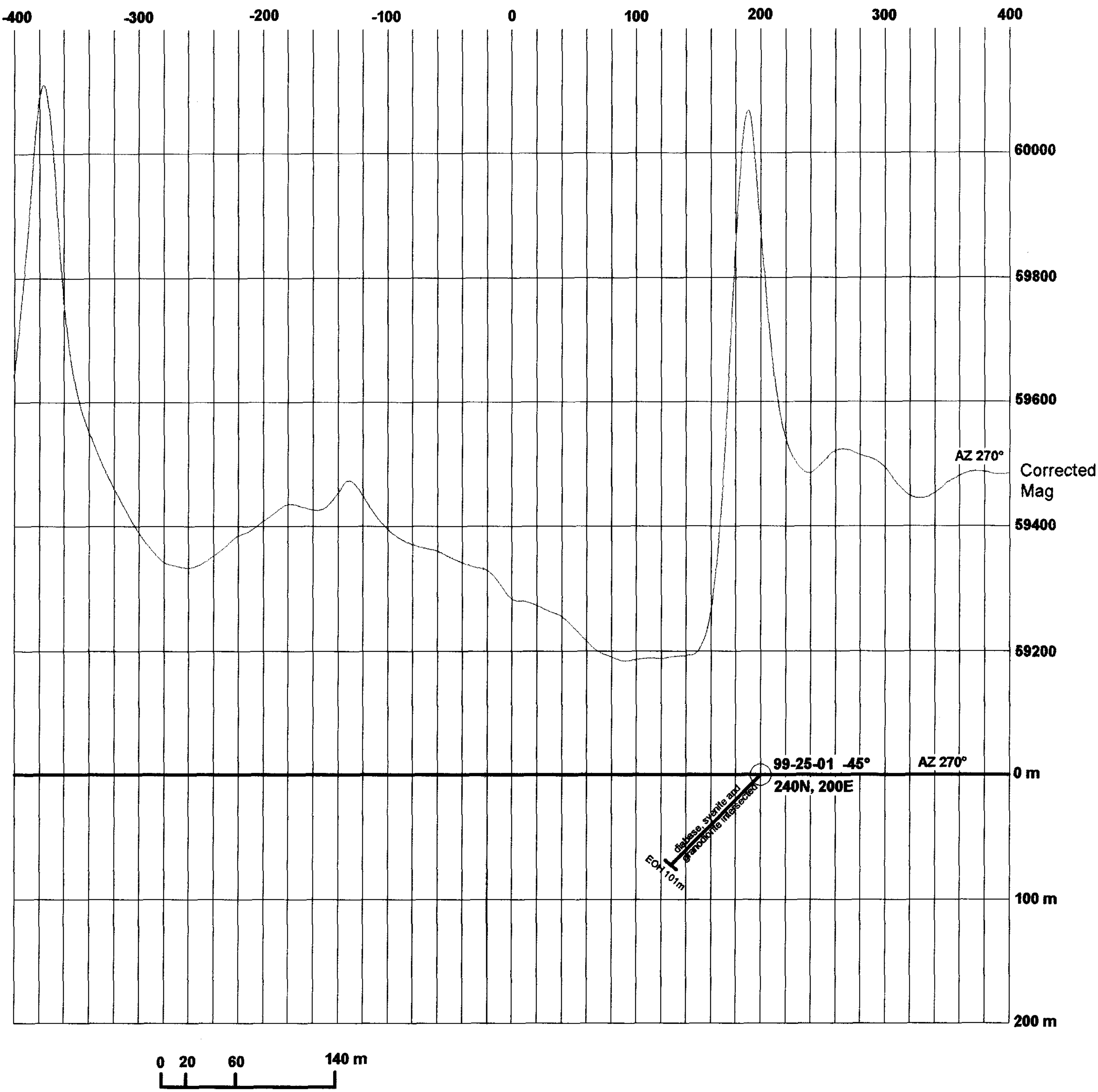
Section 240N
DDH1501

Figure 8



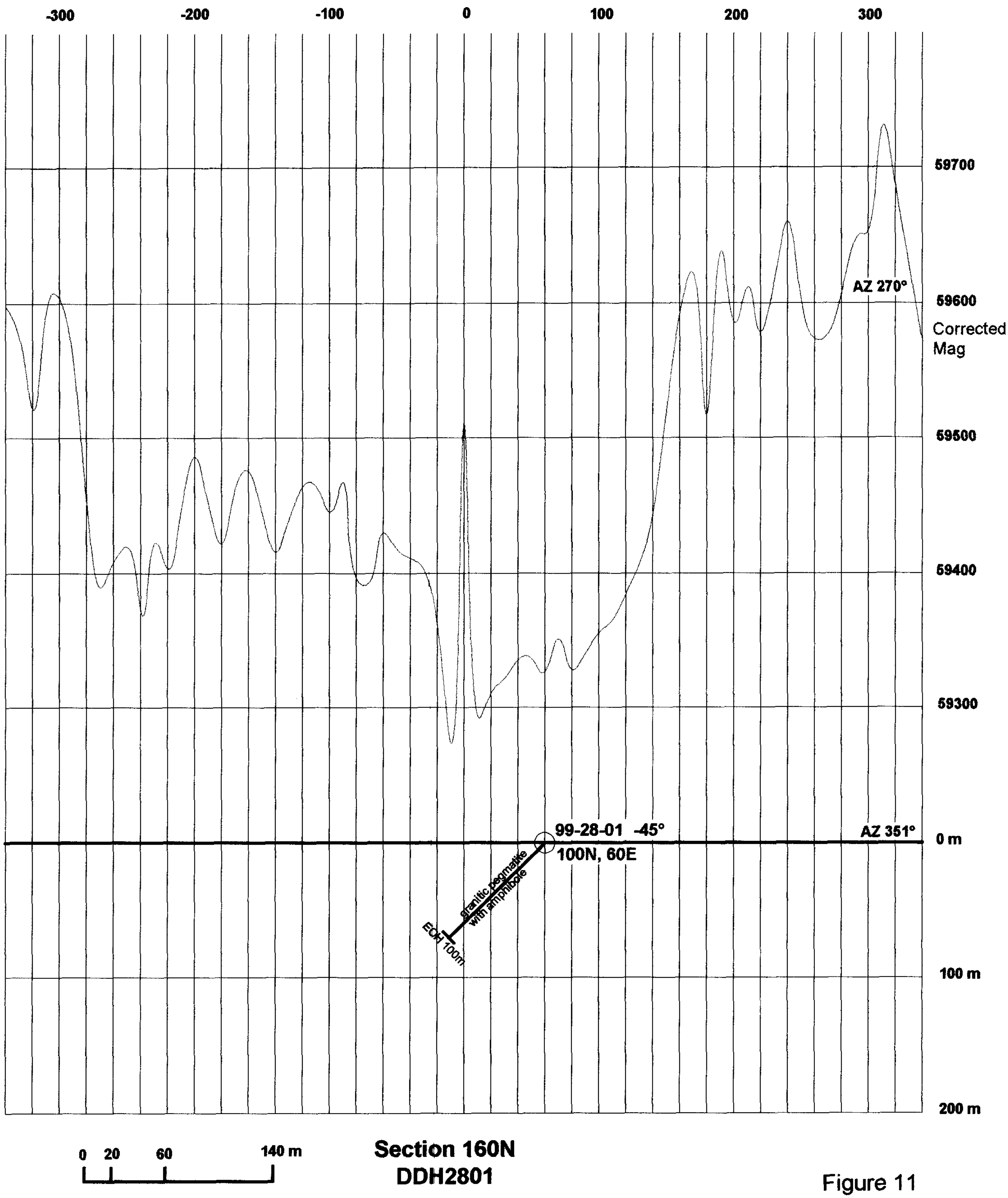
Section 320N
DDH1701

Figure 9



Section 240N
DDH2501

Figure 10



Section 160N
DDH2801

Figure 11

4.6 *2000 Geochemical Sampling and Ground Checks*

On July 27th and 28th, 2000, a follow-up ground check on selected target areas and limited geochemical till sampling was carried out by Navigator (Brockman, 2000). Ground checking included looking for outcrop or topographic features that could explain magnetic anomalies, magnetic susceptibility measurements on outcrop and subcrop, location of drill collars and drill core, and collection of till samples. A brief summary of the ground checks are provided below in numerical order, and more detailed observations are included in Appendix VII. Till sample processing, picking and probing information is included as Appendix VIII. Till sample locations and picking results are shown on Figure 12 and Figure 13 respectively.

A total of twenty till samples were collected from the Fry Inlet Project on claims NVR2 and 3 (grid 2 target), NVR4 (grid 4 target), NVR6 (grid 6 target), NVR18 (grid 20 target) and NVR11 (rediscovered grid 8 and grid 30 targets). Samples taken down ice from the anomalies were orientated in three different directions from the anomaly (215°, 270° and 320°) based on known ice directions. Good frostboils for till sampling were found throughout the property. Samples were approximately 20 kg each, and were submitted for processing to Cominco Ltd.'s Exploration Research Laboratory in Vancouver.

Visual picking results from the till sample processing (potential kimberlite indicator grain totals) are tabulated in Table 3, and shown graphically in Figures 12 and 13. A total of 65 indicator grains were picked from the 20 till samples by I&M Geological Services of Delta, BC. Eclogite (20) and chrome diopside grains (16) were the most common grains picked. The remaining grains consisted of chromite (10), olivine (10), ilmenite (7), and zircon (2). There were no pyrope grains found in any of the samples.

Potential kimberlitic indicator mineral grains were subjected to electron microprobe analyses by RLB Barnett Geological Services of Lambeth, Ontario. Electron microprobing often results in the rejection or reclassification of visually identified mineral grains. Consequently the final number of probed grains is usually lower than the visual picking results. The eclogitic garnet grains (7) all contained less than 0.05% Na_2O and are therefore do not plot within the area of interest on standard TiO_2 vs Na_2O graphs (see Appendix VIII). Clinopyroxenes (a total of 4 chrome diopsides) tend to be greater than 22% CaO and low in Cr_2O_3, although a few of the grains do plot within the diamond inclusion field (see Appendix VIII). None of the visually identified potential chromite or ilmenite grains were probe confirmed to be kimberlitic in origin. Negative or poor microprobe results do not necessarily mean that visually identified grains cannot be derived from a kimberlitic source, only that the probablility is lower. Both Figure 13 and the following discussion refer to visual picking results.

The magnetic high on grid 2 could not be explained since the target is under a lake. Four till samples (2101 to 2104) were taken from land areas surrounding the target, both up-ice

TABLE 3
SUMMARY OF TILL SAMPLE PICKING RESULTS

GRID TARGET AREA	CLAIM	TILL SAMPLE	PYROPE	ECLOGITE	ILMENITE	CHROMITE	CHROME DIOPSIDE	ZIRCON	OLIVINE	SAMPLE TOTAL
2	NVR 2	2101	0	5	0	0	2	0	0	7
2	NVR 2	2102	0	2	0	0		0	0	2
2	NVR 2	2103	0	0	0	1	0	2	0	3
2	NVR 3	2104	0	5	0	0	1	0	3	9
4	NVR 4	2105	0	3	0	0	2	0	2	7
4	NVR 4	2106	0	2	0	3	1	0	3	9
4	NVR 4	2107	0	0	0	1	1	0	0	2
6	NVR 9	2111	0	0	0	0	0	0	0	0
6	NVR 9	2112	0	0	0	1	1	0	0	2
6	NVR 9	2113	0	0	0	1	2	0	0	3
6	NVR 9	2114	0	0	0	0	2	0	0	2
20	NVR 18	2119	0	3	0	0	1	0	0	4
20	NVR 18	2120	0	0	2	0	0	0	0	2
20	NVR 18	2121	0	0	1	0	0	0	0	1
20	NVR 18	2122	0	0	0	2	0	0	0	2
8	NVR 11	2123	0	0	0	0	1	0	0	1
8	NVR 11	2124	0	0	1	0	0	0	0	1
8	NVR 11	2125	0	0	2	1	0	0	0	3
8	NVR 11	2126	0	0	0	0	0	0	2	2
30	NVR 11	2127	0	0	1	0	2	0	0	3
		GRAND TOTALS	0	20	7	10	16	2	10	65

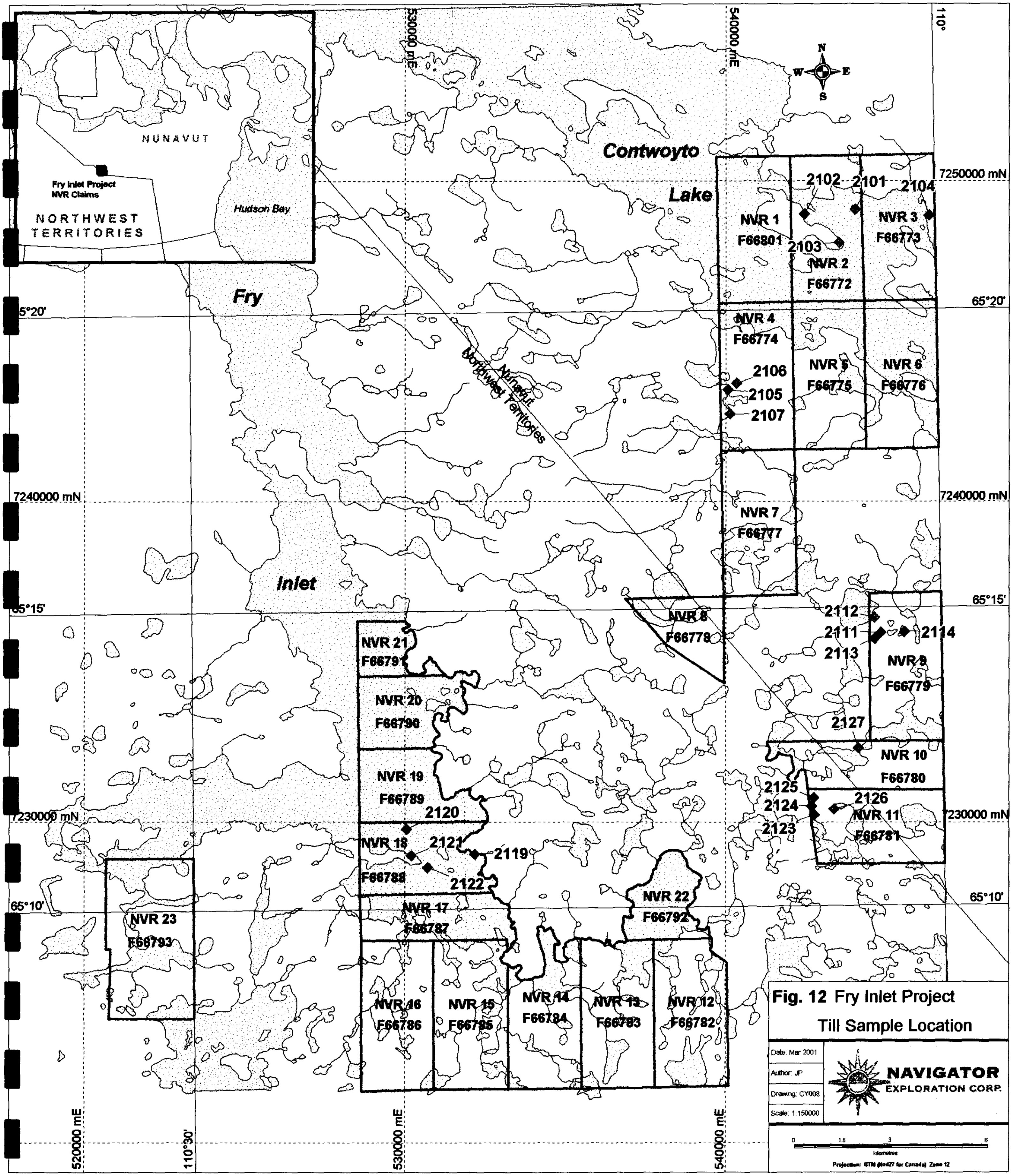
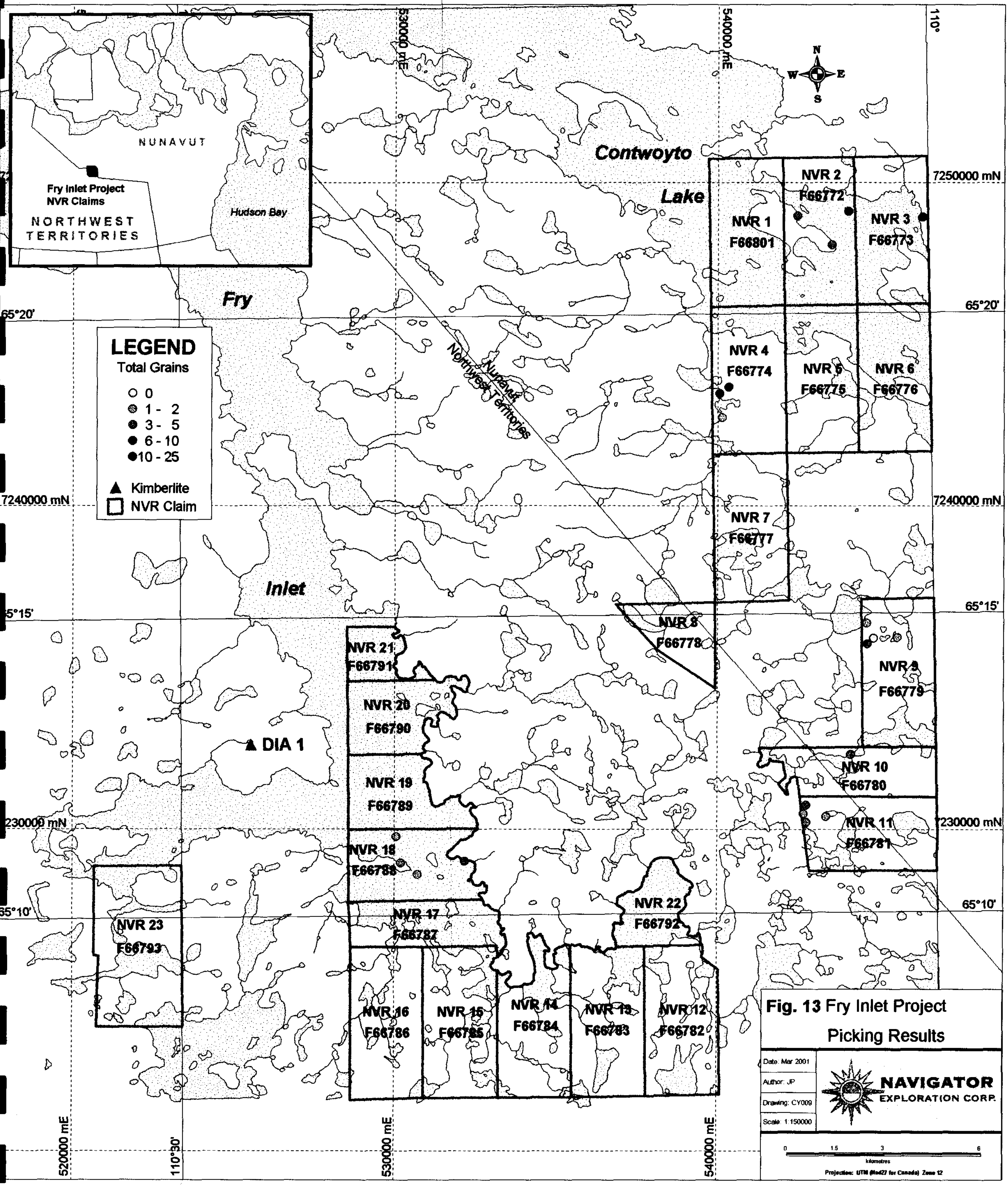


Fig. 12 Fry Inlet Project

Till Sample Location



NUNAVUT
Fry Inlet Project
NVR Claims
NORTHWEST TERRITORIES
Hudson Bay
Contwoyto
Lake
Fry
Inlet
Nunavut
Northwest Territories
LEGEND
Total Grains
0
1 - 2
3 - 5
6 - 10
10 - 25
Kimberlite
NVR Claim
DIA 1
NVR 1 F66801
NVR 2 F66772
NVR 3 F66773
NVR 4 F66774
NVR 5 F66775
NVR 6 F66776
NVR 7 F66777
NVR 8 F66778
NVR 9 F66779
NVR 10 F66780
NVR 11 F66781
NVR 12 F66782
NVR 13 F66783
NVR 14 F66784
NVR 15 F66785
NVR 16 F66786
NVR 17 F66787
NVR 18 F66788
NVR 19 F66789
NVR 20 F66790
NVR 21 F66791
NVR 22 F66792
NVR 23 F66793
7250000 mN
7240000 mN
7230000 mN
65°20'
65°15'
65°10'
110°
110°30'
520000 mE
530000 mE
540000 mE
N
S
E
W
Fig. 13 Fry Inlet Project
Picking Results
Date: Mar 2001
Author: JP
Drawing: CY009
Scale: 1:150000
NAVIGATOR
EXPLORATION CORP.
0
1.5
3
6
kilometres
Projection: UTM (Nad27 for Canada) Zone 12

and down-ice (see Figure 12). Modest amounts of potential kimberlite indicator grains were returned from the samples including two samples with 3-5 and two samples with 6-10 grains, one of which is from the up-ice direction (see Figure 13).

The magnetic high on grid 4 could not be explained from outcrop exposure in the area. Magnetic susceptibility readings of frost heaved boulders were generally low (range=0 to 5.15, average=1.1.7, n=9). Three till samples (2105 to 2107) were collected down ice of the target. Modest to low numbers of potential kimberlite indicator grains were returned from the samples (two samples with 7-8 grains and one sample with 2 grains).

No outcrop or subcrop was located in the area of grid target 6 and the cause of the magnetic low anomaly was not determined. Four till samples (2111 to 2114) were taken (three down ice and one up ice) and all returned low amounts of potential kimberlite indicator mineral grains (0 to 3 grains down ice and 2 grains up ice).

The drill hole collar and drill core were located on the grid 11 target and confirmed to be in the correct position with regard to the topography and target. A UTM position for the collar was measured using GPS (recorded in Table 2).

The magnetic high target on grid 16 was found to correspond to area covered predominantly by frostboils but including a granodiorite subcrop at the anomaly centre. High magnetic susceptibility readings over the subcrop (range of 1.75 to 91.4, average= 4.58, n=7) account for the magnetic high target.

In the area of grid 20 no outcrop or subcrop was found on the island underlying about 20% of the magnetic high (the remainder of the anomaly lies under a lake). Consequently, the cause of the anomaly could not be established. One up-ice sample (2119) and three down-ice till samples (2120 to 2122) were taken. The up-ice sample returned four potential kimberlite indicator grains, while the down ice samples returned low numbers of potential kimberlite indicator grains (1-2).

Two drill hole collar positions, one metre apart, and drill core from hole 99-28-01 were located on grid 28. A UTM position from GPS for the collar location was recorded (Table 2). Drill collar location was established to be correct with respect to anomaly location, topography and drill logs.

Insufficient time was available to visit grid 30 on the ground, but a low level overflight did not observe any areas of potential outcrop or subcrop to account for the magnetic high (Brockman, 2000; Appendix VII).

On grid 32 the horseshoe shaped magnetic low anomaly, of which 80% lies under a lake, encircles an outcrop of granodiorite and pegmatite with high magnetic susceptibility (range=1.79 to 8.6, average=4.63, n=4). Granite boulders along west side of the anomaly have low magnetic susceptibility readings (range=0.00 to 5.18, average=0.77, n=7). Subcrop of altered granite, exposed along the lakeshore also had high magnetic susceptibility readings (range=3.36 to 6.16, average=4.68, n=5). Brockman suggested that the magnetic low might be the result of the central magnetic high location on a hillside above the lake. No till sampling was deemed necessary because the anomaly was explained.

On claim NVR 11 a topographic lowland was identified from a ground check of a magnetic low. This area may be the original grid target 8 anomaly, in contradiction of CBA's assertion that the target was explained by a topographic high and therefore not subjected to ground geophysical surveys. Granitic gneiss, subcropping south of the anomaly displays low magnetic susceptibility (range=0.01 to 0.14, average=0.23, n=4). No explanation for the target was found. Four down ice till samples (2123 to 2125) were taken and returned low amounts of potential kimberlite indicator grains (1-3). One up-ice till sample (2126) was taken and returned three potential kimberlite indicator grains.

In summary, ground checking provided an explanation for geophysical anomalies on grids 16 and 32 but grids 2, 4, 6, 8, 20 and 30 may still be valid targets.

4.7 Discussion of Results

CBA originally identified 32 possible targets on the Fry Inlet Project from a review of previous airborne data. Two of these targets (8 and 24) were discarded as topographic highs but this assessment is now in question. Ground magnetometer surveys over the 30 remaining anomalies, and HLEM surveys over 12 of those grids, were completed.

Magnetometer survey data was instrumental in the identification of the potential kimberlite targets ultimately tested by five diamond drill holes. In general, the HLEM survey data added very little additional information that was useful in the selection of drill targets. The HLEM response generally consisted of very flat in-phase data but weak quadrature lows coincident with the magnetic lows were noted on drill targets 11, 15 and 25.

The drilling results for all five targets were negative, no kimberlite pipes or indications of nearby kimberlite bodies were found. At this time, each of the drill targets must be considered adequately tested and no further drilling of those specific targets is required. However, most of the geophysical anomalies were not explained by the drill results. It is noteworthy that all five drill targets intersected similar granitic units, consistent with the regional geology (Yamba Suite granitoid), and all five of the geophysical targets were magnetic lows.

A further review of the available information from the previous geophysical airborne survey is warranted.

Ground checking in 2000 proved useful in explaining magnetic anomalies on grids 16 and 32. Modest to low numbers of potential kimberlite indicator grains were returned from most of the 20 till samples. A more comprehensive till sampling program may be warranted. Till sample results from 2000 need to be reviewed in detail and incorporated into a compilation and interpretation of all the available geochemical data for the region with the objective of identifying potential dispersion trains of kimberlite indicator minerals. The compilation should include data compiled by DIAND (Kidd, 2001) and any available assessment data from nearby ground held by NDVM/Lytton, Diamondex, Kennecott Canada Exploration Inc. (KCEI)/Tahera Corp and Tanquery/Southern Era (Enersource, 2001). Interpretation of the geochemical anomalies should incorporate known surficial geology (e.g. Kerr et al, 2000), ground checking where possible, and careful attention to the ice direction variations (215°, 270° and 320°) across the property.

Magnetic susceptibility measurements on rock and core samples should be a standard tool for explaining ground magnetic survey anomalies and establishing geophysical characteristics.

There remain nine potential targets for additional work (ground geophysics and possibly drilling) on the current claims as well as seven other lower priority, already surveyed, grid targets (2, 4, 6, 14, 20, 27, 30) that might be upgraded pending further review and interpretation of the airborne geophysics, additional ground geophysical and geochemical compilation. Original grid targets 8 and 24 that were discounted based on an apparently erroneous identification of topographic highs, warrant further review.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The regional geological and tectonic setting for the Fry Inlet Project shows some similarities to that of the Lac de Gras kimberlite field and therefore may be favourable for the formation and preservation of diamonds in the mantle, and their transport to surface. The close proximity of the DIA 1 kimberlite pipe to the western margin of the Fry Inlet property suggests good potential for the discovery of other kimberlite bodies, which in turn may be diamondiferous.

A review of airborne magnetic data revealed thirty-two potential drill targets of which thirty were selected for ground geophysical surveys (magnetometer and HLEM). Five drill targets were selected from the ground geophysical results. All five drill holes adequately tested the geophysical anomaly but did not intersect kimberlite. Most of the geophysical targets are located over the Yamba and Concession Suite granitoids but the magnetic susceptibility of these units was not established during the drill program. Any future work should include magnetic susceptibility measurements on the drill core as a matter of course.

The nine lower priority (unsurveyed) grid targets, might be upgraded through further geophysical and geochemical review and compilation, and ground checking (2, 4, 6, 8, 14, 20, 24, 27, 30). Ongoing interest and exploration by other companies in the immediate area of the Fry Inlet Project further supports additional review of potential targets.

Preliminary encouraging results were obtained from the limited till sampling carried out in 2000. Pending detailed review of all sampling results and a geochemical compilation, further detailed or infill till sampling may be warranted. The possibility of multiple till sheets means that an older till may effectively seal the top of a kimberlite and prevent the release of indicator minerals. Careful attention should be paid to the three ice directions (215°, 270° and 320°) in any interpretation of possible dispersion trains.

R. Hopkins

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APPENDICES

Appendix I

Mineral Claims and Expenditure Schedule

List of Claims (1 page)
Expenditures per claim (1 page)
Claim Status (1 page)

The list of mineral claims documents claim name and tag number, the NTS sheet(s) in which the claim is situated, acreage and recording/anniversary dates. A list of the original landholdings is followed by a revised list following acceptance of this report.

Expenditures per claim are represented by a spreadsheet tied to claim specific work and the expenditure allocations and cost calculations documented in Appendix II.

Claim status describes the application of the expenditures on each claim, and the effect of grouping. Claims in bold are those that will be retained beyond the second anniversary (February 27, 2001).

NAVIGATOR EXPLORATION CORP.
NVR (FRY INLET) CLAIMS

ORIGINAL LANDHOLDINGS

	Claim	*Number*	*Acreage*	*NTS Sheet*	*Recording Date*	*Anniv. Date*	*Mining District*
1	NVR1	F66771	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
2	NVR2	F66772	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
3	NVR3	F66773	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
4	NVR4	F66774	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
5	NVR5	F66775	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
6	NVR6	F66776	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
7	NVR7	F66777	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
8	NVR8	F66778	1096.29	76 E/01,08	Feb. 27, 1999	Feb. 27, 2001	NT/Nunavut
9	NVR9	F66779	2582.50	76 E/01,08	Feb. 27, 1999	Feb. 27, 2001	Nunavut
10	NVR10	F66780	1748.50	76 E/01	Feb. 27, 1999	Feb. 27, 2001	NT/Nunavut
11	NVR11	F66781	2321.44	76 E/01	Feb. 27, 1999	Feb. 27, 2001	NT/Nunavut
12	NVR12	F66782	2510.62	76 E/01	Feb. 27, 1999	Feb. 27, 2001	NT
13	NVR13	F66783	2582.50	76 E/01	Feb. 27, 1999	Feb. 27, 2001	NT
14	NVR14	F66784	2339.66	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
15	NVR15	F66785	2582.50	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
16	NVR16	F66786	2582.50	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
17	NVR17	F66787	1746.08	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
18	NVR18	F66788	2126.69	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
19	NVR19	F66789	1709.55	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
20	NVR20	F66790	1682.14	76 E/01	Feb. 28, 1999	Feb. 28, 2001	NT
21	NVR21	F66791	954.22	76 E/01,08	Feb. 28, 1999	Feb. 28, 2001	NT
22	NVR22	F66792	1209.54	76 E/01	Feb. 27, 1999	Feb. 27, 2001	NT
23	NVR23	F66793	2124.50	76 E/02	Feb. 27, 1999	Feb. 27, 2001	NT
			49976.73 acres				

LANDHOLDINGS AFTER ACCEPTANCE OF REPORT

	Claim	*Number*	*Acreage*	*NTS Sheet*	*Recording Date*	*Anniv. Date*	*Mining District*
1	NVR1	F66771	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2002	Nunavut
2	NVR2	F66772	2582.50	76 E/08	Feb. 27, 1999	Feb. 27, 2002	Nunavut
3	NVR8	F66778	1096.29	76 E/01,08	Feb. 27, 1999	Feb. 27, 2004	NT/Nunavut
4	NVR9	F66779	2582.50	76 E/01,08	Feb. 27, 1999	Feb. 27, 2002	Nunavut
5	NVR10	F66780	1748.50	76 E/01	Feb. 27, 1999	Feb. 27, 2002	NT/Nunavut
6	NVR11	F66781	2321.44	76 E/01	Feb. 27, 1999	Feb. 27, 2003	NT/Nunavut
7	NVR12	F66782	2510.62	76 E/01	Feb. 27, 1999	Feb. 27, 2009	NT
8	NVR13	F66783	2582.50	76 E/01	Feb. 27, 1999	Feb. 27, 2005	NT
9	NVR15	F66785	2582.50	76 E/01	Feb. 28, 1999	Feb. 28, 2004	NT
10	NVR16	F66786	2582.50	76 E/01	Feb. 28, 1999	Feb. 28, 2003	NT
11	NVR17	F66787	1746.08	76 E/01	Feb. 28, 1999	Feb. 28, 2004	NT
12	NVR18	F66788	2126.69	76 E/01	Feb. 28, 1999	Feb. 28, 2006	NT
13	NVR20	F66790	1682.14	76 E/01	Feb. 28, 1999	Feb. 28, 2002	NT
14	NVR21	F66791	954.22	76 E/01,08	Feb. 28, 1999	Feb. 28, 2006	NT
15	NVR22	F66792	1209.54	76 E/01	Feb. 27, 1999	Feb. 27, 2009	NT
16	NVR23	F66793	2124.50	76 E/02	Feb. 27, 1999	Feb. 27, 2009	NT
			33015.02 acres				

NAVIGATOR EXPLORATION CORP.
NVR CLAIMS

Claim Name	Claim Number	Acreage	Total Gridding (km)	Total Magnetics (km)	Total HLEM (km)	Value of Gridding	Value of Magnetics	Value of HLEM	Total value of geophysics	Number of till samples	Value of till samples	Total Drilling (m)	Value drilling	Total expenditures per claim
NVR1	F66801	2582.5	11.94	11.94	0	$ 9,223.96	$ 4,611.98	$ -	$ 13,835.94	0	$ -	0	$ -	$ 13,835.94
NVR 2	F66772	2582.5	4.95	4.95	2.4	$ 3,824.00	$ 1,912.00	$ 1,854.06	$ 7,590.07	3	$ 3,233.97	0	$ -	$ 10,824.03
NVR 3	F66773	2582.5	3.85	3.85	1.8	$ 2,974.22	$ 1,487.11	$ 1,390.55	$ 5,851.88	1	$ 1,077.99	0	$ -	$ 6,929.87
NVR 4	F66774	2582.5	5.52	5.52	0	$ 4,264.34	$ 2,132.17	$ -	$ 6,396.51	3	$ 3,233.97	0	$ -	$ 9,630.48
NVR 5	F66775	2582.5	0	0	0	$ -	$ -	$ -	$ -	0	$ -	0	$ -	$ -
NVR 6	F66776	2582.5	0	0	0	$ -	$ -	$ -	$ -	0	$ -	0	$ -	$ -
NVR 7	F66777	2582.5	6.12	6.12	0	$ 4,727.86	$ 2,363.93	$ -	$ 7,091.79	0	$ -	0	$ -	$ 7,091.79
NVR 8	F66778	1096.29	5.96	5.96	4.44	$ 4,604.25	$ 2,302.13	$ 3,430.01	$ 10,336.39	0	$ -	0	$ -	$ 10,336.39
NVR 9	F66779	2582.5	5.6	5.6	0	$ 4,326.14	$ 2,163.07	$ -	$ 6,489.22	4	$ 4,311.95	0	$ -	$ 10,801.17
NVR 10	F66780	1748.5	9.8	9.8	0	$ 7,570.75	$ 3,785.38	$ -	$ 11,356.13	1	$ 1,077.99	0	$ -	$ 12,434.12
NVR 11	F66781	2321.44	5.6	5.6	0	$ 4,326.14	$ 2,163.07	$ -	$ 6,489.22	4	$ 4,311.95	0	$ -	$ 10,801.17
NVR 12	F66782	2510.62	33.94	33.94	8.98	$ 26,219.52	$ 13,109.76	$ 6,937.28	$ 46,266.57	0	$ -	208	$ 30,304.55	$ 76,571.11
NVR 13	F66783	2582.5	9.7	9.7	3.52	$ 7,493.50	$ 3,746.75	$ 2,719.29	$ 13,959.54	0	$ -	110	$ 16,026.44	$ 29,985.98
NVR 14	F66784	2339.66	0.98	0.98	0.54	$ 757.08	$ 378.54	$ 417.16	$ 1,552.78	0	$ -	0	$ -	$ 1,552.78
NVR 15	F66785	2582.5	10.88	10.88	4.76	$ 8,405.08	$ 4,202.54	$ 3,677.22	$ 16,284.84	0	$ -	104	$ 15,152.27	$ 31,437.12
NVR 16	F66786	2582.5	16.79	16.79	0	$ 12,970.71	$ 6,485.35	$ -	$ 19,456.06	0	$ -	0	$ -	$ 19,456.06
NVR 17	F66787	1746.08	4.76	4.76	0	$ 3,677.22	$ 1,838.61	$ -	$ 5,515.83	0	$ -	0	$ -	$ 5,515.83
NVR 18	F66788	2126.69	14.97	14.97	6.48	$ 11,564.71	$ 5,782.36	$ 5,005.97	$ 22,353.03	4	$ 4,311.95	0	$ -	$ 26,664.99
NVR 19	F66789	1709.55	0	0	0	$ -	$ -	$ -	$ -	0	$ -	0	$ -	$ -
NVR 20	F66790	1682.14	4.2	4.2	4.2	$ 3,244.61	$ 1,622.30	$ 3,244.61	$ 8,111.52	0	$ -	0	$ -	$ 8,111.52
NVR 21	F66791	954.22	6.02	6.02	6.02	$ 4,650.60	$ 2,325.30	$ 4,650.60	$ 11,626.51	0	$ -	0	$ -	$ 11,626.51
NVR 22	F66792	1209.54	6.45	6.45	0	$ 4,982.79	$ 2,491.40	$ -	$ 7,474.19	0	$ -	0	$ -	$ 7,474.19
NVR 23	F66793	2124.5	20.8	20.8	1.58	$ 16,068.54	$ 8,034.27	$ 1,220.59	$ 25,323.39	0	$ -	101	$ 14,715.19	$ 40,038.58
	totals	*49976.73*	*188.83*	*188.83*	*44.72*				*$ 253,361.40*	*20*		*523*	*$ 76,198.45*	*$ 351,119.62*

nvr-exp
5/10/01

NAVIGATOR EXPLORATION CORP.
NVR CLAIMS

Claim Name	Claim Number	Acreage	Total expenditures per claim	Shifted Monies (Grouping)	New Total Expend.	Excess after first 2 year period ($4/ac)	Excess after first 1 year period (Feb 27, 2002)	Excess after 2nd 1 year period (Feb 27, 2003)	Excess after 3rd 1 year period (Feb 27, 2004)	Excess after 4th 1 year period (Feb 27, 2005)	Excess after 5th 1 year period (Feb 27, 2006)	Excess after 6th 1 year period (Feb 27, 2007)	Excess after 7th 1 year period (Feb 27, 2008)	Excess after 8th 1 year period (Feb 27, 2009)
NVR 1	**F66801**	2582.50	$ 13,835.94			$ 3,505.94	-$ 1,659.06							
NVR 2	**F66772**	2582.50	$ 10,824.03			$ 494.03	-$ 4,670.97							
NVR 3	F66773	2582.50	$ 6,929.87			-$ 3,400.13								
NVR 4	F66774	2582.50	$ 9,630.48			-$ 699.52								
NVR 5	F66775	2582.50	$ -			-$ 10,330.00								
NVR 6	F66776	2582.50	$ -			-$ 10,330.00								
NVR 7	F66777	2582.50	$ 7,091.79			-$ 3,238.21								
NVR 8	**F66778**	1096.29	$ 10,336.39			$ 5,951.23	$ 3,758.65	$ 1,566.07	-$ 626.51					
NVR 9	**F66779**	2582.50	$ 10,801.17			$ 471.17	-$ 4,693.83							
NVR 10	**F66780**	1748.50	$ 12,434.12	-$ 5,200.00	$ 7,234.12	$ 240.12	-$ 3,256.88	-$ 6,753.88						
NVR 11	**F66781**	2321.44	$ 10,801.17	$ 5,200.00	$ 16,001.17	$ 6,715.41	$ 2,072.53	-$ 2,570.35						
NVR 12	**F66782**	2510.62	$ 76,571.11	-$ 20,000.00	$ 56,571.11	$ 46,528.63	$ 41,507.39	$ 36,486.15	$ 31,464.91	$ 26,443.67	$ 21,422.43	$ 16,401.19	$ 11,379.95	$ 6,358.71
NVR 13	**F66783**	2582.50	$ 29,985.98		$ 29,985.98	$ 19,655.98	$ 14,490.98	$ 9,325.98	$ 4,160.98	-$ 1,004.02				
NVR 14	F66784	2339.66	$ 1,552.78		$ 1,552.78	-$ 7,805.86								
NVR 15	**F66785**	2582.50	$ 31,437.12	-$ 9,000.00	$ 22,437.12	$ 12,107.12	$ 6,942.12	$ 1,777.12	-$ 3,387.88					
NVR 16	**F66786**	2582.50	$ 19,456.06			$ 9,126.06	$ 3,961.06	-$ 1,203.94						
NVR 17	**F66787**	1746.08	$ 5,515.83	$ 9,000.00	$ 14,515.83	$ 7,531.51	$ 4,039.35	$ 547.19	-$ 2,944.97					
NVR 18	**F66788**	2126.69	$ 26,664.99			$ 18,158.23	$ 13,904.85	$ 9,651.47	$ 5,398.09	$ 1,144.71	-$ 3,108.67			
NVR 19	F66789	1709.55	$ -			-$ 6,838.20								
NVR 20	**F66790**	1682.14	$ 8,111.52			$ 1,382.96	-$ 1,981.32							
NVR 21	**F66791**	954.22	$ 11,626.51			$ 7,809.63	$ 5,901.19	$ 3,992.75	$ 2,084.31	$ 175.87	-$ 1,732.57			
NVR 22	**F66792**	1209.54	$ 7,474.19	$ 20,000.00	$ 27,474.19	$ 22,636.03	$ 20,216.95	$ 17,797.87	$ 15,378.79	$ 12,959.71	$ 10,540.63	$ 8,121.55	$ 5,702.47	$ 3,283.39
NVR 23	**F66793**	2124.50	$ 40,038.58			$ 31,540.58	$ 27,291.58	$ 23,042.58	$ 18,793.58	$ 14,544.58	$ 10,295.58	$ 6,046.58	$ 1,797.58	-$ 2,451.42
	totals	*49976.73*	*$ 351,119.62*											

Note 1: Claims in **bold text** are those that will be retained past their second anniversary date (February 27, 2001).

Note 2: Values shown as negatives (e.g. -$ 1,981.32) and shaded represent the expenditure required to carry the claims forward to the next anniversary.

Appendix II

Project Cost Schedule

Statement of Expenditures (2 pages)
Supporting Schedules (1 page)
Expenditure Allocations and Cost Calculations (1 page)

The following statement of expenditures covers costs incurred on the Fry Inlet Project between February 27, 1999 and February 27, 2001. The majority of costs are associated with ground geophysical surveys and diamond drilling, and till sampling. There is a small portion allocated to general expenditures (misc. support, plotting, reporting, etc.). The latter has been divided among the former based on a proportion of expenditures. Total project expenditures are $ 351,119.62.

Cost breakdown by program is as follows (includes allocation of general expenditures):

Ground Geophysical Survey Program	$253,361.40
Diamond Drill Program and Support	$ 76,198.45
Till Sampling Program	$ 21,559.77

All costs are considered to be claim specific in nature and have been apportioned on the basis of claim coverage. Gridding and geophysical surveys have used a weighting factor where magnetometer surveys are assigned a value of 1 and both gridding and HLEM surveys are assigned a value of 2 (or twice as costly as the magnetic surveys based on the requirement for two persons and estimated production rates).

Costs for these activities are therefore:

Gridding	$772.53/km
Magnetic Surveying	$386.26/km
HLEM Surveying	$772.53/km
Diamond Drilling	$ 145.69/m
Till Sampling	$1,077.99/e

These figures have been applied in Appendix I and on the relevant Form 9's.

FRY INLET PROJECT

Statement of Expenditures Incurred between February 27, 1999 and February 27, 2001

Description	Reference		Amount		
Geochemical Data Collection and Interpretation (till sampling, support, transport)					
Accomodations	Echo Bay Mines		1,000.00		
Communications	Globalstar		65.53		
Expediting Services	G & G Expediting		300.00		
Charters - helicopter	Arctic Sunwest		5,979.04		
Field Supplies	Deakin Equipment Ltd.		29.55		
Field Supplies	Deakin Equipment		32.85		
Travel (apportioned to project)	Carlson Wagonlit		126.59		
Travel (apportioned to project)	Carlson Wagonlit		100.47		
Shipping Charges	Canadian Airlines Int'l		31.43		
Field Supplies	Deakin Equipment		17.57		
Expenses	Shannon Brockman		46.22		
Shipping Charges	Canadian Airlines Int'l		4.21		
Expenses	Shannon Brockman		21.54		
Shipping Charges	Canadian Airlines Int'l		69.70		
Shipping Charges	Canadian Airlines Int'l		86.37		
Expenses	Shannon Brockman		132.88		
Expenses	Shannon Brockman		56.05		
Expediting Services	G & G Expediting		129.60		
Expenses	Shannon Brockman		7.53		
Shipping Charges	Canadian Airlines Int'l		60.30		
Shipping Charges	Canadian Airlines Int'l		60.30		
Map Copies	Receiver General		14.15		
		Total	**$ 8,371.88**	**$**	**8,371.88**
Till Sample Processing (processing, picking, microprobing)					
Shipping Charges	Arctic Sunwest		718.68		
Shipping Charges	Echo Bay Mines		1,016.00		
Shipping Charges	Canadian Airlines Int'l		124.38		
Mineral Picking	I & M Morrison		1,323.25		
Mineral Picking	I & M Morrison		1,765.25		
Mineral Processing	Cominco		6,000.00		
Mineral Probing	R. L. Barnett Geological Consulting Inc		516.87		
		Total	**$ 11,464.43**	**$**	**11,464.43**
Ground Geophysical Survey Program (data collection, analyses and support)					
Inclusive costs	Covello, Bryan and Associates Ltd.		65,000.00		
Inclusive costs	Covello, Bryan and Associates Ltd.		48,475.49		
Inclusive costs	Covello, Bryan and Associates Ltd.		112,769.05		
Inclusive costs	Covello, Bryan and Associates Ltd.		6,508.69		
Map Copies	Copy Time		14.40		

Expenses	R. Hopkins		40.40	
Map Copies	Plotter Usage		120.00	
Map Copies	Plotter Usage		180.00	
		Total	**$ 233,108.03**	**$ 233,108.03**

Diamond Drill Program (meterage, support, etc.)

Meterage and consumables	Midwest Drilling		12,009.00	
Meterage and consumables	Midwest Drilling		41,235.25	
support	Covello, Bryan and Associates Ltd.		10,317.49	
support	Covello, Bryan and Associates Ltd.		6,545.51	
		Total	**$ 70,107.25**	**$ 70,107.25**

General salaries, property support and reporting

Data compilation/evaluation	Elu Consultants Inc.		940.60	
Data compilation/evaluation	Patti Beales		297.00	
Data compilation/evaluation	Patti Beales		86.43	
Exploration staff	[Schedule A]		24,479.00	
		Total	**$ 25,803.03**	**$ 25,803.03**

Other

In House Maps	[Schedule B]		2,015.00	
Office supplies, etc.	February 27 1999 - February 27, 2001		250.00	
		Total	**$ 2,265.00**	**$ 2,265.00**

Total NVR assessment costs: **$ 351,119.62**

FRY INLET PROJECT

Statement of Expenditures Incurred between February 27, 1999 and February 27, 2001
Support/Interpretation/Reporting

Schedule A

Exploration Staff	*Mandays*	*Cost/manday*	*Totals*	
Robin Hopkins	16.2	$ 600.00	$ 9,720.00	
Mark Cannuli	18.0	$ 450.00	$ 8,100.00	
Shannon Brockman	3.5	$ 350.00	$ 1,225.00	
Robert Campbell	7.0	$ 250.00	$ 1,750.00	
Julie Paillard	7.4	$ 300.00	$ 2,205.00	
Janet Miller	1.6	$ 165.00	$ 264.00	
Felicia Chang	4.8	$ 175.00	$ 840.00	
Michelle Jackson	1.5	$ 250.00	$ 375.00	
			$ 24,479.00	**$ 24,479.00**

Schedule B

# of maps produced in-house	*Size*	*Cost per map*	*Totals*	
46	small	$5	$ 230.00	
119	medium	$15	$ 1,785.00	
			$ 2,015.00	**$ 2,015.00**
				$ 26,494.00

NAVIGATOR EXPLORATION CORP.
NVR CLAIMS

EXPENDITURE ALLOCATIONS			Proportion of total exp.	Proportion of exp. excluding general costs	Cost with proportion of general exp. included	No. of samples, km, m, etc.	Cost per sample, km, m, etc.
Total Property Expenditures	$	351,119.62	100	100	$ 351,119.62		
Diamond Drill Program and Support	$	70,107.25	20.0	21.7	$ 76,198.45	523	**$ 145.69**
Ground Geophysical Survey Program	$	233,108.03	66.4	72.2	$ 253,361.40	655.93	**$ 386.26**
Till Sampling Program	$	19,836.31	5.6	6.1	$ 21,559.77	20	**$ 1,077.99**
General Expenditures	$	28,068.03	8.0	n/a	n/a	n/a	n/a

	weight. factor	survey kms	weight. value	total cost	**cost/km**
gridding has weighting factor of	2	188.83	377.66	$ 145,876.03	**$ 772.53**
mag has weighting factor of	1	188.83	188.83	$ 72,938.02	**$ 386.26**
HLEM has weighting factor of	2	44.72	89.44	$ 34,547.35	**$ 772.53**
			total	*$ 253,361.40*	

Appendix III

List of Contractors and Project Personnel

List of Contractors and Consultants

Arctic Sunwest Charters (171817 Canada Inc.)
P.O. Box 1807
Yellowknife, NT
X1A 2P4
Phone: (867) 873-4464
Fax: (867) 873-9334

Covello, Bryan and Associates Ltd.
3502 Raccine Road
W&D, R.P.O. #2
Yellowknife, NT
X1A 2S9
Phone: (867) 920-2729
Fax: (867) 873-3816

Cominco Ltd. / Exploration Research Laboratory
1486 East Pender Street
Vancouver, B.C.
V5L 1V8
Phone: (604) 685-3032
Fax: (604) 844-2686

G&G Expediting
Sub P.O. Box 1
Yellowknife, NT
X1A 2S9
Phone: (867) 669-9705
Fax: (604) 669-9706

I.&M. Morrison Geological Services Ltd.
11109 Prospect Drive
Delta B.C.
V4E 2R4
Phone: (604) 590-2153
Fax: (604) 590-2731

R.L. Barnett Geological Consulting Inc.
9684 Longwoods Road
RR 32, London, ON
N6P 1P2
Phone: (519) 652-1498
Fax: (519) 652-1475

Midwest Drilling
180 Cree Crescent
Winnipeg, MB
R3J 3W1
Phone: (204) 885-7532
Fax : (204) 888-4767

List of Project Personnel

The following personnel were involved in the acquisition, processing, interpretation and presentation of data relating to work performed on the Fry Inlet Property, Contwyoto Lake, NT. Duties were performed at various times between February 27, 1999 and February 27, 2001. Contact addresses are those given in the List of Contractors (above). Inquires can be addressed to:

Navigator Exploration Corp.
Suite 1300
409 Granville Street
Vancouver, BC
V6C 1T2

Phone: (604) 668-8355
Fax: (604) 668-8366

Company	Name	Position/duties
Arctic Sunwest	Don Michaud	Pilot
Cominco Ltd.	Jim McLeod	E.R.L. Manager
Cominco Ltd.	Susie Woo	E.R.L. Administrator
Covello, Bryan and Assoc.	Lou Covello	Geologist
Covello, Bryan and Assoc.	Gary Vivian	Geologist
Covello, Bryan and Assoc.	Gord Clarke	Geologist
Covello, Bryan and Assoc.	Uwe Naeher	Geologist
Covello, Bryan and Assoc.	Richard Shushack	Camp Man
Covello, Bryan and Assoc.	Dave Hambly	Geophysical Technician
Covello, Bryan and Assoc.	Ron Joly	Geophysical Technician
Covello, Bryan and Assoc.	Nigel Cozens	Geophysical Technician
Covello, Bryan and Assoc.	Roland Conrad	Geophysical Technician
Covello, Bryan and Assoc.	Tom Snow	Geophysical Technician
Covello, Bryan and Assoc.	Bryon Jones	Expeditor
I.&M. Morrison	Maureen Morrison	Project Manager
I.&M. Morrison	Stacey Saukko	Lab Technician
I.&M. Morrison	Colleen Wishart	Lab Technician
I.&M. Morrison	Wendy Hertz	Lab Technician
I.&M. Morrison	Rosemary MacDonald	Lab Technician
I.&M. Morrison	Tracey Hannah	Lab Technician
I.&M. Morrison	Kelly Owsnett	Lab Technician
Midwest Drilling	S. Cochrane	Driller
Midwest Drilling	B. Fradsham	Driller
Midwest Drilling	F. Larkin	Driller
Midwest Drilling	J. Rocher	Driller

Navigator Explor. Corp.	Robin Hopkins	Geologist
Navigator Explor. Corp.	Mark Cannuli	Contract Geologist
Navigator Explor. Corp.	Shannon Brockman	Contract Geologist
Navigator Explor. Corp.	Robert Campbell	Contract Geologist
Navigator Explor. Corp.	Julie Paillard	GIS/IT Tech. Support
Navigator Explor. Corp.	Felicia Chang	Geology Student
Navigator Explor. Corp.	Janet Miller	Geology Student
R.L. Barnett Geological	Robert Barnett	Project Manager and Probe Operator
R.L. Barnett Geological	John Sheen	Data Management
R.L. Barnett Geological	John Forth	Grain Preparation and Mounting
R.L. Barnett Geological	Gordon Wood	Grain Preparation and Mounting

Appendix IV

Summary of Geophysical Targets and Results

(5 pages total)

APPENDIX IV
GEOPHYSICAL TARGETS AND RESULTS

CLAIM	GRID	AIRBORNE TARGET	PROXIMITY TO INTERPRETED DYKE	GROUND GEOPHYSICAL SURVEYS							GROUND CHECK	REGIONAL GEOLOGY	PRIOR.	COMMENTS	RECOMMENDATION
		(CBA Picks)[1.]	(CBA Interp.)	MAG	LINE	STA.	SIZE	HLEM	LINE	STA.	(Brockman, 2000)		(CBA)		
NVR 1	1	Simple polygon; N-Smag low, 1.0 by 0.5 km under Contwoyto Lake, west of island.	NW dyke cross cuts grid 550m SW of mag low centre.	N-S linear and diffuse mag low. Spot low over 1 line (960N) (<59,180 nt)	960N	90E		n/a	n/a	n/a	none (lake)	Migmatitic turbidite (no Fe Fm).; near (north of) contact to Concession Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR 2, NVR 3	2	E-W simple polygon, oval shape, 1.1 by 0.7 km, under Contwoyto Lake.	NW dyke cross cuts grid 200 m NE of mag low centre.	Double ear-shaped mag high lobes, ~N-S orientation across lines 160N to 240N. East ear lobe strong (~+160 nt), west loben is weaker.	240N	0	East lobe ~160 by 80 m. West lobe ~160 by 130 m.	No significant response.	n/a	n/a	Checked but anomaly in lake. Fiour till samples taken from nearby islands.	Migmatitic turbidite (no Fe Fm.); near (north of) contact to Concession Suite granitoid.	n/a	Ground check does not explain anomaly.	Should be reviewed as potential drill target.
NVR 2	3	Simple polygon, small circular shape, ~300m diameter, under lake (Fry Inlet).	NNW dyke cross cuts grid 50m E of mag low centre.	NE broken linear trend of 3 one line weak mag lows, possibly due to poor line spacing (on L160, 240 & 320N). Circular. Best spot mag low to NE of original target but still a weak target.	320N (best low)	300E	NE linear trend ofspot lows is 270 by 70m. Spot mag low on L 320N is 100 by 60m.	No significant responses.	n/a	n/a	none (lake)	Yamba Suite granitoid.	n/a	Spotty mag log and linear NE trend of weak spot lows - no good target defined.	No follow-up recommended.
NVR 4	4	Spot target on east part of previous Canamera B3/17 target-an east west linear mag high.	1.2 km NE of NW dyke	E-W trend of three 1 line spot highs. Very strong spot mag high anomaly (~400 nT) at L160N/200E.	160N	200E	n/a	n/a	n/a	n/a	Not enough outcrop to explain mag high. Mag sus. in area generally low (averages 0.97 but includes maximum of 5.15). Boulders/subcrop predominantly granodiorite. Three till samples taken.	Concession Suite granitoid, near (~1 km north) contact to migmatitic turbidite.	n/a	Coincident with Canamera B3/17 target (2nd priority geophysical target) No description of this anomaly in assessment report (Hicks, 1994).	Should be reviewed as potential drill target.
NVR 7, NVR 4	5	Simple polygon, oval shape, N-S trend, mag low 450 by 300m	300 m E of NNW to NW trending dyke.	Weak diffuse mag low, linear NNE trend on 2 lines (400N & 480 N) and continuing NNE but weakening. Located in broad moderately low mag area. Appears coincident with N by E airborne mag linear lows.	n/a	n/a	(100 by 30m)	n/a	n/a	n/a	none	Concession Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR 9	6	Simple polygon, circular shape, mag low 250m diameter.	1.5 km E of NNE dyke.	Very weak, diffuse broad mag low, irregular shapes near centre of grid (just E). Better mag low, but irregular shape, between L160N & 240N near east edge of grid. Circular spot mag highs around L240 N/300E and L320N/360E	200N	350E	120 by 60m	n/a	n/a	n/a	Frostboil covered with a few boulders. Four till samples taken.	Concession Suite granitoid.	n/a	No target. Spot mag highs near east edge of grid, L240N and 320N, may be of some interest pending further review.	Pending further review of geophysics - possibly extend ground geophysics.

APPENDIX IV
GEOPHYSICAL TARGETS AND RESULTS

CLAIM	GRID	AIRBORNE TARGET (CBA Picks)[1.]	PROXIMITY TO INTERPRETED DYKE (CBA Interp.)	GROUND GEOPHYSICAL SURVEYS MAG	LINE	STA.	SIZE	HLEM	LINE	STA.	GROUND CHECK (Brockman, 2000)	REGIONAL GEOLOGY	PRIOR. (CBA)	COMMENTS	RECOMMENDATION
NVR 10	7	Simple polygon, oval shape, ENE trend, mag low 350m long.	300m west of NNE dyke, and 700m west of NW dyke. The two dykes intersect 800m NE of the centre of the mag low.	Broad and irregular shaped moderate to very weak magnetic signature. No correspondence shape or magntiude of airborne anomaly is apparent.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yamba Lake Suite granitoid near contact with Concession Suite granitoid (to north).	n/a	No target.	No follow-up recommended.
NVR 11	8	(circular magnetic low, ~250m diameter. Discarded as target by CBA-see Comment)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Four till samples taken in general area.	n/a	n/a	Discarded as topo-high by CBA and not surveyed. However, location was ground checked by Brockman (2000) who described the area as lowland. Also, 1;50,000 topo map does not show any signifiant topo high in this area.	Pending ground checking may be a valid target for ground geophysical surveys.
NVR 11	9	Simple polygon, elongate NNW trend, mag low 350 by 150m. Linear, mag highs, probably dykes, NNE and NNW trends, bracket mag low target. Under lake.	1.6km E of NNE dyke and 1.8km E of NW dyke.	Broad moderately low mag signature. No distinct target corresponding to airborne anomaly.	n/a	n/a	n/a	n/a	n/a	n/a	none	Yamba Lake Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR 22	10	Simple polygon, oval-pear shaped, 400m diameter, mag low. Under lake.	200m SW of NW dyke.	Broad moderately low mag, no distinct target. NW dyke reflected by strong mag high linear on east part of grid.	n/a	n/a	n/a	n/a	n/a	n/a	none	Yamba Lake Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR 12	11 (drilled)	Simple polygon, elongate NNW trend, mag low 300 by 200m. Under lake.	900m W of N to NNW dyke.	NW mag low on three lines (320N, 400N and 480N), ~`170nT anomaly.	420N	70W	310 by 140m, NW linear trend.	Weak quadrature anomalies coincident with mag low: ~`11% contrast on L420N, ~5% on L420N and 320N	480N	105W	Yes.	Yamba Lake Suite granitoid.	High	Drill target defined. Drill hole 99-11-01 intersected altered granite which might account for mag low (?). Quadrature low might be due to lake sediments.	No follow-up recommended. Magnetic susceptibility measurements on drill core would be of interest if property is revisited.
NVR 12, NVR 13	12	Simple polygon, oval to circular mag low, NW trend, 400 m diameter.	1.6km W of NNW dyke.	Four single line spot mag lows on lines 80N, 160N, 240N, and 320N aligned along ENE trend.	n/a	n/a	n/a	n/a	n/a	n/a	none	Yamba Lake Suite granitoid.	n/a	No target. (spot mag lows aligned along linear ENE trend)	No follow-up recommended.
NVR 12	13	Two simple polygon, oval shapes, N-S trend, mag lows, 250m (N) and 350m (S) long.	250 to 200m west, and sub-parallel to NNE dyke.	Target mag low not delineated. NNE mag high appears to correspond to NNE dyke. No mag low west of dyke. Weak, linear mag low parallel to east contact of dyke.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite granitoid.	n/a	No target.	No follow-up recommended.

APPENDIX IV
GEOPHYSICAL TARGETS AND RESULTS

CLAIM	GRID	AIRBORNE TARGET (CBA Picks)[1]	PROXIMITY TO INTERPRETED DYKE (CBA Interp.)	GROUND GEOPHYSICAL SURVEYS: MAG	LINE	STA.	SIZE	HLEM	LINE	STA.	GROUND CHECK (Brockman, 2000)	REGIONAL GEOLOGY	PRIOR. (CBA)	COMMENTS	RECOMMENDATION
NVR 12	14	Simple polygon, elongate NNE trend, 600 by 200 to 300m, mag low. Strongest portion is south half which is under lake.	NE end of air mag low is within 100 m of NNW dyke.	Weak, spot mag low under lake (L160N) forms part of weak linear, NW trend of spot mag low anomalies in contrast to the NE trend of airborne anomaly. The strongest mag low occurs as NS trend, over two line on the NE corner of grid (L560N and 640N) and remains open to the north.	160N	20W	(single line, spot anomaly)	Weak quadrature low coincident with weak mag low under lake (strongest contrast on L240N, weaker on L160N)	240N	30W	None.	Yamba Lake Suite granitoid.	Low	No target corresponding to airborne mag low but two line N-S low on NE corner of grid suggest grid extension to the north may be warranted.	Further review of geophysics is warranted to account for lack of correspondence. between airborne and ground survey results.
NVR 13, NVR 14	15 (drilled)	Simple polygon, oval shape, E-W trend, 350 by 250m mag low. Under lake.	900m NE of NW dyke.	Quite weak NE elongate mag low over 3 lines (L160N, to 320N) but occurs as discrete mag low within moderately high mag background. Also note linear, E-W mag low on south most grid line (off property) and open to south (L0N).	160N and 240N	50E and 100E	200 by 75m	Coincident quadrature low (~13% contrast) with mag low on L240N (weaker portion of mag low).	320N	105E	None.	Yamba Lake Suite granitoid.	Medium	Drilled target on mag low coincident with HLEM anomaly: Intersected granodiorite but no kimberlite. Target remains unexplained.	No follow-up recommended.
NVR 15	16	Simple polygon, oval shape, NE trend, mag high. Under lake.	400m west of N-S dyke.	Several small spot moderate-high mag anomalies that form a broad, irregular area of moderately high mag. Strongest spot mag highs occur on land west of airborne target under lake.	n/a	n/a	n/a	n/a	n/a	n/a	Ganodiorite outcrop in centre of mag high. High mag susceptibility readings on outcrop (average 4.58) explains cause of high. One soil sample taken.	Yamba Lake Suite granitoid.	n/a	High magnetic susceptibility readings over granodiorite outcrop explains mag high.	No follow-up recommended.
NVR 15	17 (drilled)	Simple polygon, roughly circular, mag low, 300m in diameter. On land but partially overlaps lake.	900m east of NNW dyke and 1.0km west of N-S dyke.	Double lobe shape with two 'eyes' as main mag lows on L320N. Forms fairly well-defined mag low extending partially over lake and two lines.	320N	20W	250 (E-W) by 130m (N-S)	No significant responses over mag low. Very weak quadrature (low) and in-phase responses under lake to SE of mag low.	n/a	n/a	None.	Yamba Lake Suite granitoid.	High	Tested target with drill hole 99-17-01 on eastern lobe of mag low. Massive granodiorite intersected. Target was not explained but no magnetic susceptibility measurements were taken on drill core..	No follow-up recommended. Magnetic susceptibility measurements on drill core would be of interest if property is revisited.
NVR 16	18	Simple polygon, elongate lobe, N-S trend, 400 by 150m, mag low. Sandwiched between two lakes	500m east of a NNW dyke intersected by N-S dyke and 700 m W of NNW dyke.	No distinct mag low target found.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR 17	19	Simple polygon, circular, 150m diameter, mag low. Under lake.	180m W of NNW dyke.	Very small and very weak spot mag low on one line.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite granitoid.	Low	No target.	No follow-up recommended.
NVR 18	20	Simply polygon, circular shape, 300m diameter, mag high. Partially under lake and to lesser extend over island (NE part)	1.6km west of NNW to N dyke.	Multi-lobed mag high in broad area under lake. Distinct double lobed strong mag high, NE trend, occurs on two lines as well as isolated spot mag high two lines to north of double lobe mag high.	40N	95W	Double lobed high: 160 by 75m.	n/a	n/a	n/a	No exposed outcrop or subcrop. No outcrop noted on peninsula to east. Four till samples taken.	Yamba Lake Suite granitoid.	Low	Double lobed mag high might be result of NE to ENE dyke suggested in airborne mag data. Possible target pending extension of ground geophysics.	Review geophysics with view fof possible extension of ground geophysical surveys.

APPENDIX IV
GEOPHYSICAL TARGETS AND RESULTS

CLAIM	GRID	AIRBORNE TARGET (CBA Picks)[1]	PROXIMITY TO INTERPRETED DYKE (CBA Interp.)	GROUND GEOPHYSICAL SURVEYS MAG	LINE	STA.	SIZE	HLEM	LINE	STA.	GROUND CHECK (Brockman, 2000)	REGIONAL GEOLOGY	PRIOR. (CBA)	COMMENTS	RECOMMENDATION
NVR 18	21	Simple polygon, oval shape embayed on NE edge, N-S trend, 600 by 400m, mag low. Under lake.	500m W of NNW to N dyke and NE dyke south of target.	No distinct mag low target found.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite granitoid.	Low	No target.	No follow-up recommended.
NVR 23	22	Simple polygon, linear E-W trend, 550 by 200m, mag low. Mostly under lake (eastern third onlaps land).	400m west of NNW dyke.	No corresponding mag low target found.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR 23	23	Simple polygon, circular, 300m diameter. Mostly under lake - northwest third onlaps land.	200m of NW dyke (not marked on CBA interpretation).	Broad area of moderately low mag but no distinct mag low target.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite, ~1.0 km west of contact with migmatitic turbidite and Concession Suite granitoid	n/a	No target.	No follow-up recommended.
NVR 23	24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Discarded as topo-high and not staked. Location unknown.	Pending ground checking may be a valid target for ground geophysical surveys.
NVR 23	25 (drilled)	Simple polygon, oval shape, E-W trend, 400 by 300m, mag low. Mostly under lake.	NNW dyke cross cuts grid ~50m E of mag low centre.	Roughly oval shaped (~NE) mag low over two lines. Bounded by N-S immediately east of mag high.	260N	130W	100 by 75m	Weak quadrature lows coincident with mag low (L240N) and immediately east, at contact to dyke (L280N).	240N and 280N	150W and 190W	None (drilled).	Yamba Lake Suite, near (~1.0 km) west of contact with migmatitic turbidite and Concession Suite granitoid	High	Drill hole 99-25-01and intersected diabase and granitoid. Fault zone may explain EM quadrature response. Porphyritic Syenite overlying granodiorite may explain mag low but no mag susceptibility readings taken on drill core.	No follow-up recommended. Magnetic susceptibility measurements on drill core would be of interest if property is revisited.
NVR 21	26	Simple polygon, circular shape, 300m diameter, mag low. Under lake.	N dyke cross-cuts east margin of mag low.	No corresponding distinct mag low target found (Broad moderately low mag region west of dyke).	n/a	n/a	n/a	n/a	n/a	n/a	None	Yamba Lake Suite granitoid.	Low	No target.	No follow-up recommended.
NVR 8	27	Simple polygon, elongate lobe, ENE trend, 400 by 200 m, mag low. Under lake, near shore.	~2km E and W of NNW dykes.	Broad elongate to amorphous, E-W lobe, ~500 by 150m, moderately low but diffuse mag zone. Two weak, spot mag lows on L320N	320N	90E, 340E	n/a	n/a	n/a	n/a	None.	Contact between Concession and Yamba Lake suite granitoid.	Low	Lacks good distinct target on grid but targeted anomaly (Canamera A13/15) extends north off of claim.	Additional ground surveys (& land acquisition) north of claim NVR 8 required to fully evaluate target.
NVR 12	28 (drilled)	Simple polygon, circular shape, 300m diameter, mag low in NNE linear trend. Under lake.	1.5 km W of NNW dyke.	Curvilinear mag low trend. Small distinct mag low on L160N between 10E and 75E at lake shore line. Note appears to be data spike at 160N/00E.	160N	20E	65 by 50m	No significant EM response.	n/a	n/a	Drill core and two collar locations, 1m apart located on lakeshore.	Yamba Lake Suite, near (~1.0 km) west of contact with migmatitic turbidite and Concession Suite granitoid	Medium	Drill hole 99-28-01intersected granitic to pegmatitic unit.	No follow-up recommended. Magnetic susceptibility measurements on drill core would be of interest if property is revisited.
NVR 18	29	Simple polygon, oval shape, 250 by 100m, mag low. Under lake.	NNW dyke appears to deflect around east margin of mag low, and coincide or interrupt NNE dyke.	Small mag low over 2 lines 40m apart	30S	150W	90 by 60m	No significant EM response.	n/a	n/a	None.	Yamba Lake Suite granitoid.	High.	Potential drill target. Complex dyke pattern in airborne mag warrants review.	No follow-up recommended at this time

APPENDIX IV
GEOPHYSICAL TARGETS AND RESULTS

CLAIM	GRID	AIRBORNE TARGET	PROXIMITY TO INTERPRETED DYKE	GROUND GEOPHYSICAL SURVEYS							GROUND CHECK	REGIONAL GEOLOGY	PRIOR.	COMMENTS	RECOMMENDATION
		(CBA Picks)[1]	(CBA Interp.)	MAG	LINE	STA.	SIZE	HLEM	LINE	STA.	(Brockman, 2000)		(CBA)		
NVR 10	30	Simple polygon, circular shape, 300 m diameter, mag high.	500m east of NNW dyke.	Long, ENE linear but broadly amorphous mag high trend. Liner trend consists of several spot mag highs including two double lobed but single line mag highs. Best mag high (~100nT) is circular spot anomaly on NE corner of grid.	n/a	n/a	n/a	n/a	n/a	n/a	No outcrop or subcrop exposure noted in fly over.	Yamba Lake Suite granitoid.	n/a	Irregular mag high, possibly related to ENE feature.	Further ground checking and possible extension of ground geophysics to delienate mag high on NE corner of grid.
NVR 15	31	Simple polygons cluster of three, oval to circular (max. 300m diameter), mag lows. Two lows form WNW linear trend, One underlies small lake. Not a strong target.	NNW dykes bound either side of grid and are within 100 to 500 m of mag lows.	Long, linear mag low dominantly W-E trend with NW flex in middle. No distinct target.	n/a	n/a	n/a	n/a	n/a	n/a	None.	Yamba Lake Suite granitoid.	n/a	No target.	No follow-up recommended.
NVR12, NVR 13	32	No polygon on CBA map, airborne anomaly is oval shaped, N-S trend, 300m long, mag low. Under lake near shore.	1.9km west of NNW dyke.	Broad horseshoe shape (open side south) consisting of several strong but single line mag lows. Strongest low consists of 2 line, NNE oval under lake on L160N to 240N	230N	20E	150 by 85m	n/a	n/a	n/a	Mag high at centre of horseshoe shaped low is coincident with granodiorite-pegmatite with high mag susceptibility (4.63 avg.). Subcrop along lakeshore,adjacent to mag low also has high mag susceptibility is high (4.68 avg). Two rep rock samples and 1 soil sample taken.	Yamba Lake Suite granitoid.	n/a	Topographic position of mag high on hillside in centre of horseshoe shaped mag low may explain mag low. Unusual shape/trend of mag low warrants review of air and ground geophysics.	Further review of geophysics and ground check to explain horseshoe shaped mag low.

Appendix V

Digital Data – Ground Geophysical Surveys

The data is presented as ASCII *.xyz files on 1 diskette. The file naming convention is as follows: *survey type – grid##* -.xyz file extension:

> e.g. the file name 'mgrid25.xyz' refers to the file of magnetic data for grid 25 while 'hgrid25.xyz' refers to the horizontal loop electromagnetic data for grid 25

Appendix VI

Diamond Drill Hole Logs

DDH 99-11-01
DDH 99-15-01
DDH 99-17-01
DDH 99-25-01
DDH 99-28-01

NAVIGATOR EXPLORATION CORP.

FRY INLET DRILLING PROGRAMME

DIAMOND DRILL RECORD

SECTION : 360N

DDH : 99-11-01

Northing	:	360.00
Easting	:	150.00
Elevation	:	.00
Azimuth	:	348 x True
Inclination	:	-45.0
Direction	:	Grid N
Grid	:	ANOM 11
Length (m)	:	108.00
Casing (m)	:	7.1
Purpose	:	Test mag low under lake

Drill Type : 25A

Core Size : NQ

Contractor : MIDWEST

Dip Tests

Method : Acid Etch

Depth	Grid Azimuth	Dip
Collar	348.0	-45.0

Property	:	FRY INLET
NTS	:	76 E/1
DIST. OF MACKENZIE NWT		
Claim	:	NVR12
Tag Number	:	
Date Started	:	99/MY/27
Date Complete	:	99/MY/28
Logged by	:	MC
Date Logged	:	99/MY/28

from (m)	to (m)	------------------ Description ------------------	Sample No.	Width (m)	Cu %	Zn %	Pb %	Au (g/t)	Ag (g/t)
.00	7.1	CASING							
12.10	108.00	GRANODIORITE White to greyish white, medium grained, equigranular. Massive to moderately jointed. 60-70% greyish white feldspar, 10-20% quartz with scattered biotite and hornblende. Minor sericitization (?) of feldspar more readily evident on joint surfaces. Relatively homogenous.							
108.00		END OF HOLE : CASING RETRIEVED							

NAVIGATOR EXPLORATION CORP.

SECTION : 265N

DDH : 99-15-01

FRY INLET DRILLING PROGRAMME

DIAMOND DRILL RECORD

Northing : 265.00
Easting : 70.00
Elevation : .00
Azimuth : 129 x True
Inclination : -45.0
Direction : Grid S
Grid : ANOM 15
Length (m) : 110.00
Casing (m) : 12.2
Purpose : Test mag low/weak EM quadrature under lake

Drill Type : 25A

Core Size : NQ

Contractor : MIDWEST

Dip Tests
Method : Acid Etch

Depth	Grid Azimuth	Dip
Collar	129.0	-45.0

Property : FRY INLET
NTS : 76 E/1
DIST. OF MACKENZIE NWT
Claim : NVR13
Tag Number :
Date Started : 99/JN/03
Date Complete : 99/JN/04
Logged by : MC
Date Logged : 99/JN/04

from (m)	to (m)	------------------ Description ------------------	Sample No.	Width (m)	Cu %	Zn %	Pb %	Au (g/t)	Ag (g/t)
.00	12.20	CASING Water depth 3m- lake sediments may be source of HLEM response							
12.20	110.00	GRANODIORITE Grey to pale pink, medium grained, equigranular. Consists of 80% grey white feldspar, 15% small equigranular quartz phenocrysts and minor dark green hornblende and/or chlorite. Homogenous throughout. Moderately jointed (15-30cm intervals).							
110.00		END OF HOLE : CASING RETRIEVED							

NAVIGATOR EXPLORATION CORP.

SECTION : 320N

DDH : 99-17-01

FRY INLET DRILLING PROGRAMME

DIAMOND DRILL RECORD

Northing : 320.00
Easting : 20.00
Elevation : .00
Azimuth : 235 x True
Inclination : -45.0
Direction : Grid W
Grid : ANOM 17
Length (m) : 104.00
Casing (m) : 13.4
Purpose : Test east lobe of mag low

Drill Type : 25A

Core Size : NQ

Contractor : MIDWEST

Dip Tests
Method : Acid Etch

Depth	Grid Azimuth	Dip
Collar	235.0	-45.0

Property : FRY INLET
NTS : 76 E/1
DIST. OF MACKENZIE NWT
Claim : NVR15
Tag Number :
Date Started : 99/JN/01
Date Complete : 99/JN/02
Logged by : LC
Date Logged : 99/JN/02

from (m)	to (m)	------------------ Description ------------------	Sample No.	Width (m)	Cu %	Zn %	Pb %	Au (g/t)	Ag (g/t)
.00	13.4	CASING							
13.40	104.00	GRANODIORITE Grey to grey white, medium grained, massive, equigranular. Consists of 85% subhedial plagioclase, 10% 1 to 2 mm clear quartz phenocrysts and 5% 1 to 3 mm aggregates of shiny black hornblende. Unit is homogenous throughout.							
104.00		END OF HOLE : CASING RETRIEVED							

NAVIGATOR EXPLORATION CORP.

SECTION : 240N

DDH : 99-25-01

FRY INLET DRILLING PROGRAMME

DIAMOND DRILL RECORD

Northing : 240.00
Easting : 200.00
Elevation : .00
Azimuth : 270 x True
Inclination : -45.0
Direction : Grid W
Grid : ANOM 25
Length (m) : 101.00
Casing (m) : 14.2
Purpose : Test mag low/weak EM W of dyke

Drill Type : 25A

Core Size : NQ

Contractor : MIDWEST

Dip Tests
Method : Acid Etch

Depth	Grid Azimuth	Dip
Collar	270.0	-45.0

Property : FRY INLET
NTS : 76 E/2
DIST. OF MACKENZIE NWT
Claim : NVR23
Tag Number :
Date Started : 99/MY/29
Date Complete : 99/MY/31
Logged by : LC
Date Logged : 99/MY/31

from (m)	to (m)	------------------ Description ------------------	Sample No.	Width (m)	Cu %	Zn %	Pb %	Au (g/t)	Ag (g/t)
.00	14.20	CASING Water depth 2m							
14.20	37.70	DIABASE Dark grey green, fine to medium grained massive, speckled with 1mm dark biotite grains throughout. 33.50 37.70 Broken core : generally very fine grained. massive, moderately to weakly broken.							
37.70	74.00	PORPHYRITIC SYENITE Consists of 40% pale pink 3 to 8mm euhedral feldspar phenocrysts in a medium grained matrix of 40% dark red kspar, 15% medium grained white to grey feldspar and 5% dark green chlorite - hornblende. Generally massive and weakly jointed. This unit is most likely the cause of the mag low. 61.50 74.00 FAULT ZONE : broken core and fault gouge. Zone is cause of weak helm quadrature response.							
74.00	101.00	GRANODIORITE Grey to pale pink, medium grained, equigranular, msv. Consists of 80% grey white feldspar, 15% small equigranular quartz phenocrysts and minor dark green hornblende chlorite. 74.00 78.50 FAULT ZONE : broken core and fault gouge as in syenite. Gradational contact with syenite							
101.00		END OF HOLE : CASING RETRIEVED							

NAVIGATOR EXPLORATION CORP.

SECTION : 100N

DDH : 99-28-01

FRY INLET DRILLING PROGRAMME

DIAMOND DRILL RECORD

Northing : 100.00
Easting : 60E
Elevation : .00
Azimuth : 351 x True
Inclination : -45.0
Direction : Grid N
Grid : ANOM 28
Length (m) : 100.00
Casing (m) : 13.7
Purpose : Small mag low at SE end of linear trend

Drill Type : 25A

Core Size : NQ

Contractor : MIDWEST

Dip Tests
Method : Acid Etch

Depth	Grid Azimuth	Dip
Collar	351.0	-45.0

Property : FRY INLET
NTS : 76 E/1
DIST. OF MACKENZIE NWT
Claim : NVR12
Tag Number :
Date Started : 99/JN/05
Date Complete : 99/JN/06
Logged by : MC
Date Logged : 99/JN/06

from (m)	to (m)	------------------ Description ------------------	Sample No.	Width (m)	Cu %	Zn %	Pb %	Au (g/t)	Ag (g/t)
.00	13.7	CASING							
13.70	100.00	GRANODIORITE Grey to pale pink to greyish white, medium grained, equigranular. 80% grey white feldspar, 15% small equigranular quartz phenocrysts and minor dark green hornblende chlorite. Amphibole concentration increases locally to 1%, homogenous. Similar to 99-17-01 and 99-25-01 Local coarser quartz sections with up to 20% quartz. Pegmatitic appearance over short (<2m) intervals.							
100.00		END OF HOLE : CASING RETRIEVED							

Appendix VII

Report on the Summer 2000 Till Sampling and Ground Checking Program

S. Brockman, August 30, 2000

Report of the Summer 2000 Till Sampling and Ground Checking Program

On the NVR claims

Fry Inlet, Contwoyto Lake, NWT

NTS 76E/1 and 76E/8

Latitude:	**65°15'**
Longitude:	**110°12'**
Dates of Work:	**July 27 and 28, 2000**
Claims:	**NVR 1 to NVR 23**
Operator:	**Navigator Exploration** **1300-409 Granville St** **Vancouver, BC V6C 1T2**
Author:	**Shannon Brockman** **August 30, 2000**

Summary

All work outlined for the summer of 2000 program on the NVR claims was completed. Two days were spent in the area and 27 till samples, 29 ICP soil samples and representative rock samples were collected. Samples taken down ice were orientated in three different directions from the anomaly, 215, 270 and 320 degrees. Good frostboils, (very compact) were found throughout the property. Down ice samples were prioritized for processing and the remaining six up ice samples will be processed if down ice results warrant it. Samples were approximately 20 kg each.

. Till samples were submitted to the Cominco Exploration Lab in Vancouver for processing.

Drill Collars were found for grids 11 and 28. Positions of collars, collar orientation and collar dips were measured. Samples of drill core were also taken.

Introduction

This report follows up a two-day field visit, July 27 and 28, 2000 to investigate the kimberlite potential of twelve geophysical targets. The Navigator-CBA agreement contains 23 NVR claims. After a review of the 30 ground geophysical grids, HEM survey, and drill results, twelve high priority targets were chosen by Navigator to follow up this summer. A summary of field observations, sample locations and anomaly photos is below.

Previous Work

Lytton/New Dolly Varden previously held the ground covering the 23 claims. Covello-Bryan and Associates of Yellowknife selected geophysical targets from a 200m HEM survey. Ground geophysical grids were put in over some of these targets and subsequently some prospective targets were drilled by CBA under contract to Navigator. No kimberlite was intersected. The Ranch Lake and DIA kimberlite pipes lie in the general region.

Location, Access and Physiography

The targets were investigated using the support of an Arctic Sunwest's EC-120 helicopter based out of Yellowknife. The author and one pilot (Don Michaud) stayed at Lupin Mine located on the northwest shore of Contwoyto Lake. The claims (NVR 1-23) lie 350 km north-northeast of Yellowknife near Fry Inlet on the south shore of Contwoyto Lake. The claims are 80 km south-southeast of Yellowknife, a half hour flight from Lupin Mine. The properties lie in the barren lands and the region is tundra cover.

Ice Directions

Three prominent ice directions of 215, 270 and 320 degrees appear to affect this region (Geological Survey of Canada Contwoyto Lake Report). One kimberlite occurrence west of the claims has an indicator mineral trend 270 degrees (NWT Geology Division Map). The eskers in the region near Fry Inlet tend to strike in a northwesterly orientation.

Anomalies

Grid 02

The 150 by 200 meter magnetic high with no coincident EM was reported to lie on land. The anomaly actually sits in Contwoyto Lake, has no land exposure and the grid is gone . Sampling was needed to explain the anomaly and no photos were taken.

Till Samples 2101 to 2104

Grid 04

The magnetic high anomaly lies on land north of a small pond. The ground geophysical grid was identified while prospecting on the ground and was approximately correct relative to the lakeshore mapped on the geophysics. Subcrop and boulders identified in the region are granodiorites and rich in biotite. Since it was not felt that there was enough outcrop exposure to explain the anomaly, three till samples were taken down ice. No sample was taken up-ice because the New Dolly Varden map has one sample up-ice containing 1 chrome diopside (Assessment Report 083510). Two photos were taken of the area.

Magnetic Susceptibility Readings:

Station 1 (frost-heaved boulders)	0.25, 1.13, 0.00, 0.20, 5.15, 0.01, 2.28, 0.25, 1.28
Station 3 (traverse station 2 to 3)	2.88, 0.02, 0.56, 0.02, 1.89, 0.03, 0.00, 0.03, 2.57 0.06, 0.79

Representative Rock Samples

1. Station 2 Granitoid — Coarse-grained granite with three veins of quartz running through it.
   Biotite = 40%
   Quartz = 40%
   Feldspar (Plagioclase) = 20%

2. From creek — Orange stained boulders that may not fall within the perimeter of the anomaly.

   A. ?Qtz-syenite — 40% biotite
      40% potassium feldspar
      10% qtz
   B. Muscovite rich syenite
   C. Granodiorite, very felsic, biotite appears to be banded (becoming gneissic)

Till Samples 2105 to 2107

Grid 06

A magnetic low on the east side of the grid is centered at grid co-ordinates 200N and 350E. The region is frostboil covered with a few erratic boulders. There is no outcrop or subcrop to prospect in the till blanketed field. Four till samples were taken. See the photo for an approximate anomaly outline.

Till Samples 2111 to 2114

Grid 11

The core of drill hole DDH 99-1101 is found at the lakeshore. Two drill core samples were taken which best represented the units intersected. The core appears to be altered granite. End of hole footage could not be seen, but approximately 24 core boxes were stacked with core. The drill collar was identified and is located at position 538 142 E and 7225420 N, which is 20 to 25 meters west of the lakeshore. The collar was inclined at a dip of 65 degrees and a bearing of 34 degrees. One picket was identified approximately 20 meters from the hole and read position 80N, 105 W, 110m?. According to topography, the drill hole appears to be in the correct position as marked on the geophysics.

Drill Core Rep Samples

Grid 16

This patchy onland magnetic high is located on the peninsula. The area is predominantly covered by frostboils, however the magnetic high has a portion which outcrops. The rock type is a granodiorite and a soil sample was taken for ICP analysis. Pickets from the ground geophysical grid were found and co-ordinates were used for location relative to the geophysics. The anomaly center is all exposed subcrop with magnetic susceptibility readings as follows:

Position 80N and 180W 3.94, 2.89, 4.70, 9.14, 1.75, 4.25, 5.40

No till samples were taken since the anomaly was explained by outcrop. Two photos were taken.

Two representative rock samples

Grid 20

This target, a multi-lobed magnetic high has approximately 20% of the anomaly exposed on an island in a large lake. No exposed outcrop or subcrop lies on this island so four till samples were taken from strategic locations around the lake. The author did not land directly on this anomaly. No photo was taken. No outcrop could be identified on the peninsula to the east, blanketed with till.

Till Samples 2119 to 2122

Grid 28

The drill core could be spotted from the air on the southeast side of the lake.
The core was labeled DDH 99-2801 and is a altered granitic-pegmatite with some amphiboles. The core appears to go upto 100 meters and there are approximately 20 core boxes. Two drill collars were found within one meter of each other, which is approximately 50 m south east of the lakeshore. Both holes are angled and appear to be aimed towards the center of the anomaly.

Drill Collar 1 Angled Hole at a bearing of 351 degrees and an approximate dip of 65 degrees.
Position 538280 E and 7223488 N

Drill Collar 2 Angled Hole at a bearing of 330 degrees and an approximate dip of 55 degrees.
Collar 2 has a wider opening than collar 1, approximately 4" wide
Collar 2 is one meter northwest of collar 1.

Drill Core Rep Samples

Grid 30

A fly over of the anomaly showed that there are no exposures of outcrop or subcrop in the area. One sample was taken 270 degrees down ice of the geophysical target. Due to the helicopter's capacity at the time, no other samples could be taken and due to the anomalies low priority a trip back to the property did not appear justified.

Till Sample 2127

Grid 32

Magnetic low horseshoe ring signature with approximately 20% of the anomaly exposed on land. The magnetic high in the center appears to be a granodiorite – pegmatite with magnetic susceptibility readings of 1.79, 4.0, 4.13, 8.6. The magnetic low may be a result of the magnetic high's topographic hillside features. Granite boulders on the west side of the anomaly have magnetic susceptibility readings of 0.00, 0.13, 0.02, 0.00, 0.00, 5.18, 0.04. The pickets from the ground geophysical grid were found. Subcrop is exposed along the lakeshore at station 160 N and 120 W, appears to have biotite weathering to chlorite suggesting the granite is altered here. Magnetic susceptibility readings are similar to those of the magnetic high at values of 5.06, 5.19, 3.63, 6.16 and 3.36. No till sampling is warranted. Photos were taken.

Two representative rock samples

1. Granite mafics = 20% biotite
   Quartz = 40%
   Feldspar (alkali)=40%

2. Granite mafics = 15%
   Quartz = 30%
   Feldspar (alkali) = 55%

<u>Anomaly on claim NVR 11</u>

The higher priority target within the existing claim NVR 11 appears to be in the lowlands, approximately 230 degrees from the end of a small lake. Subcrop to the south of the anomaly is a granite and a granitic gneiss, rich in muscovite and biotite. Magnetic susceptibility readings from this anomaly are 0.01, 0.14, 0.53, 0.22. No explanation could be found for the target and four till samples were collected from the region. Striations were found at 290 degrees. No photos were taken.

Till Samples 2123 to 2126

<u>Anomaly between claims NVR 6 and NVR 9</u>

This higher priority magnetic low target is a conductive feature that is within a small lake. There is no exposed outcrop or subcrop in the area. It is blanketed with till cover and a few erratic boulders. The lakeshore is predominantly sand covered with very few random boulders along the edge. Most boulders were granitic. The anomaly could not be explained so three till samples were taken. No sample was taken at 320 degrees since the New Dolly Varden compilation map shows two positive samples 500 meters northwest from the target. No photos were taken.

Till Samples 2108 to 2110

<u>Anomaly east of claim NVR 19</u>

This anomaly is labeled NVR 19 on the field map. A strong magnetic high target with a coincident EM anomaly has approximately one third of the anomaly on land. No outcrop is exposed in the field of frostboils. Four till samples were taken to test the target. No photos were taken and the anomaly was only observed from the air.

Till Samples 2115 to 2118
<u>Recommendations and Conclusions</u>

Claims NVR 16 and 32 have no potential for a kimberlite target and should be dropped if ICP soil sample results are negative.

Claims NVR 02, NVR 04, NVR 06, NVR 20, NVR 30 may contain kimberlitic bodies. None of these geophysical targets could be explained in the field and claims should be held until till sample results are received. Sample media in the area was of good quality and positive results would be of interest.

Anomalies found between NVR 6 and 9, east of NVR 19 and within NVR11 could not be explained in the field and may be of a kimberlitic origin. Till sample results will be of interest.

Drill collars testing anomalies of grids 11 and 28 were found in the field. Their orientations appear to properly test the targets. Drill core is stacked in the field at each drill hole.

Appendix VIII

2000 Till Sample Processing, Picking and Probing

Cominco Ltd. / Exploration Research Laboratory

Processing Flowsheet (1 page)

I. &M. Morrison Geological Ltd.

Indicator Mineral Selection Process (1 page)
Picking Results (1 page)

R.L. Barnett Geological Inc.

Methodology of Sample Preparation and
Electron Microprobe Mineral Analysis (3 pages)
Probed Eclogites (1 page and 1 plot: TiO_2 vs Na_2O)
Probed Clinopyroxene (1 pages and 2 plots: Cr_2O_3 vs. CaO; Cr_2O_3 vs Na_2O)

Cominco Ltd. / Exploration Research Laboratory
1486 East Pender Street / Vancouver, Canada / V5L 1V8
Tel. (604) 685-3032 / Fax (604) 844-2686
Email: jim.mcleod@cominco.com

Navigator Exploration

From: <Susie.Woo@cominco.com>
To: <navigator@telus.net>
Sent: March 12, 2001 4:14 PM
Attach: V00-678H Navigator Ex..xls
Subject: Heavy Mineral data

JA (Jim) McLeod, M.A.Sc., P.Eng.
E.R.L. Manager

as requested, heavy mineral data

<<V00-678H Navigator Ex..xls>>

Also for your information, procedures/method of processing:

1) Samples were weighed except for the first 10 and then wet sieved in a nest of screens.
   - +18 mesh (+1 mm)
   - -18 to +35 mesh (-1 mm to +.5 mm)
   - -35 to +60 (-.5 mm to +.25 mm)
   - -60 mesh (-.25 mm)

2) Resulting fractions were dried and weighed.

3) -60 fraction had slimes decanted and result was dried and weighed.

4) Dried product of -18/+35 (all but last 21 samples) and -35/+60 were concentrated in TBE (2.96 S.G.) and resulting sink concentrated in MI (3.32 S.G.) ending up with float and sink products.

Hope this info is useful. If you require any more info please don't hesitate to contact me.

Susie Woo
E.R.L. Administrator

2)

I. & M. MORRISON
GEOLOGICAL SERVICES LTD.

11109 Prospect Drive, Delta, B. C. V4E 2R4
Ph. (604) 590-2153 Fax. (604) 590-2731
Email: pympes@aol.com

LABORATORY PROCEDURES

⇒ Samples received at I. and M. Morrison Geological Services Ltd.

⇒ Samples checked in against packing list, any discrepancies or breakage noted, and processing lab informed

⇒ A batch number is assigned to samples

⇒ Sample numbers entered into computer inventory, sample record is generated, samples placed in numerical order

⇒ Instruction sheet for samples is generated by supervising geologist and samples assigned to lab personnel

⇒ Samples are examined for minerals by trained lab technicians using the following equipment: binocular microscopes with magnification range of 6x to 70x, quartz halogen fiber optic illuminators, conveyor belt to handle grains, tweezers, petri dishes

⇒ When sample is completed, the area around the microscope is cleaned thoroughly, the potential indicator mineral grains are placed in vial and labelled, the reject portion of the sample placed in the original container

⇒ Results are entered into the sample record by technician and sample placed in bin

⇒ Sample is weighed, label on vial verified by data entry person to ensure that it matches the label on sample, results entered into computer, vial placed in vial file to be examined by geologist, reject portion of sample placed in storage

⇒ All picked grains verified by geologist, revised sample record generated

⇒ Some or all of the selected grains sent for microprobe analysis, as directed by client

⇒ Revised sample record entered into computer, final copy printed and proofed

⇒ Results reported to client by geologist via phone, fax or e-mail with hard copy and disk sent out by mail or courier if requested

⇒ Please note that anomalous results are reported to client on an ongoing basis

TABLE 3
SUMMARY OF TILL SAMPLE PICKING RESULTS

GRID TARGET AREA	CLAIM	TILL SAMPLE	PYROPE	ECLOGITE	ILMENITE	CHROMITE	CHROME DIOPSIDE	ZIRCON	OLIVINE	SAMPLE TOTAL
2	NVR 2	2101	0	5	0	0	2	0	0	7
2	NVR 2	2102	0	2	0	0		0	0	2
2	NVR 2	2103	0	0	0	1	0	2	0	3
2	NVR 3	2104	0	5	0	0	1	0	3	9
4	NVR 4	2105	0	3	0	0	2	0	2	7
4	NVR 4	2106	0	2	0	3	1	0	3	9
4	NVR 4	2107	0	0	0	1	1	0	0	2
6	NVR 9	2111	0	0	0	0	0	0	0	0
6	NVR 9	2112	0	0	0	1	1	0	0	2
6	NVR 9	2113	0	0	0	1	2	0	0	3
6	NVR 9	2114	0	0	0	0	2	0	0	2
20	NVR 18	2119	0	3	0	0	1	0	0	4
20	NVR 18	2120	0	0	2	0	0	0	0	2
20	NVR 18	2121	0	0	1	0	0	0	0	1
20	NVR 18	2122	0	0	0	2	0	0	0	2
8	NVR 11	2123	0	0	0	0	1	0	0	1
8	NVR 11	2124	0	0	1	0	0	0	0	1
8	NVR 11	2125	0	0	2	1	0	0	0	3
8	NVR 11	2126	0	0	0	0	0	0	2	2
30	NVR 11	2127	0	0	1	0	2	0	0	3
		GRAND TOTALS	0	20	7	10	16	2	10	65

METHODOLOGY OF SAMPLE PREPARATION

AND

ELECTRON MICROPROBE MINERAL ANALYSIS

R.L. BARNETT GEOLOGICAL

The purpose of this section is to describe the manner in which the mineral grains of interest are mounted, polished and then analyzed with an electron microprobe.

The mineral grains of interest, garnet, clinopyroxene, olivine, ilmenite and chromite, are generally received attached to paper with cellotape. Grains are identified by a specific number written immediately adjacent to each mineral grain.

The basic technique of electron microprobe mineral analysis requires that the surface of each grain be highly polished. The method of mounting and polishing the grains is as follows:

(i) All grains are mounted on rectangular glass slides that are commonly used to make standard petrographic thin sections. The actual mounting surface of the glass slide is first etched with acid to ensure good adherence of the plastic mounting medium.

(ii) Before the grains are removed from their location on the paper, their corresponding numbers are written in two or three parallel rows on the surface of the etched glass with the aid of a binocular microscope. Care is taken to use an ink which is not soluble in plastic. A small dab of plastic is then placed beside each number.

(iii) With the aid of a binocular microscope and using sharp tweezers, the cellotape is carefully pulled back to expose one grain at a time. Using a sharp point, the grain is then coated in a small amount of plastic to prevent unpredictable movement due to static electricity. The plastic-coated grain is then carefully removed from the cellotape and transferred to the dab of plastic beside the proper number. In this manner, up to 100 grains can be mounted on one rectangular glass slide. The actual number of grains per slide is determined by the size of the grains involved.

Throughout the mounting procedure, extreme care is taken to ensure that first, the grains are not lost, and second, that the proper grain is mounted and identified with the proper number.

(iv) The slide is then put on a warm hot plate to set the plastic enclosing each grain.

(v) Next, small grains of quartz are placed in plastic at the ends and strategically about the margin of each slide to provide resistance during the polishing process. The entire glass slide is then covered in a layer of plastic and put on the hot plate and allowed to harden slowly, over a period of hours under a moderate heat.

(vi) Using extreme caution, the section is then polished. The surface of the polished grain mount is examined and re-examined throughout the polishing process to ensure that the individual grains are present at the surface of the plastic. Also, it is necessary to ensure that the grains are not too thin and in danger of being wiped off the glass slide.

Although the grains, as sent, are mounted in sequential numerical order, it is essential that grains of similar size be mounted on the same glass slide. In this way, the grains all appear at the polished surface simultaneously. If larger grains are mixed with smaller grains, the larger grains appear at the polished surface, while the smaller grains are still covered in plastic.

A consequence of these constraints of grain size variation is that the grains are not necessarily mounted and analyzed in numerical order. This requires that the analyses be re-assembled in numerical order. The benefits of mounting grains according to grain size far outweigh the possible problems in data processing after generation of the initial microprobe mineral analyses.

The first and most important benefit of this mounting procedure is an overall efficiency which leads to a much faster turn around time. A greater number of grains can be mounted polished and analyzed in a shorter period of time. This procedure eliminates the necessity of repeated polishing of the grain mounts, thereby minimizing the chance that some of the grains might be wiped off the glass slide.

(vii) As silicate mineral grains and plastic do not conduct electrical current, the next step in the process is to coat the polished grain mounts with a thin layer of carbon. To eliminate problems of differential conductivity, which can introduce some analytical error, the mineral standards are routinely cleaned on a polishing lap and the standards and polished grains mounts are coated simultaneously with carbon vapour in a vacuum evaporator-carbon coater.

(viii) It is extremely important that the proper grains be easily located and identified once the polished and carbon-coated grain mounts are in the sample chamber of the electron microprobe. A map of each polished grain mount is made and with the aid of a binocular microscope each grain number is written directly into the carbon-coated surface with a scribe. This scribing process perturbs the conductivity of the thin layer of carbon, and the number is easily seen using the secondary electron detector on the microprobe.

(ix) The final step is analysis of the individual, carbon-coated mineral grains. All mineral analyses are produced by R.L. Barnett using a Model JXA-733 JEOL electron microprobe in the laboratory of R.L. Barnett Geological Consulting Inc. This microprobe is equipped with five wavelength spectrometers and a Tracor Northern EDS, spectrometer and stage automation system.

R.L. Barnett has over 25 years experience with electron microprobe analytical techniques and was Director of the Electron Microprobe Analytical Laboratory at The University of Western Ontario from 1973-1994. The mineral standards used as a basis for the mineral analyses have been assembled by R.L. Barnett over the last 20 years, and during this interval, have been the basis for hundreds of these and scientific papers. These mineral standards have been obtained from various places such as the Geophysical Laboratory and Smithsonian Institution in Washington. Most recently, R.L. Barnett obtained clinopyroxene and chrome-pyrope mineral standards used by Dr. Nickolai Sobolev.

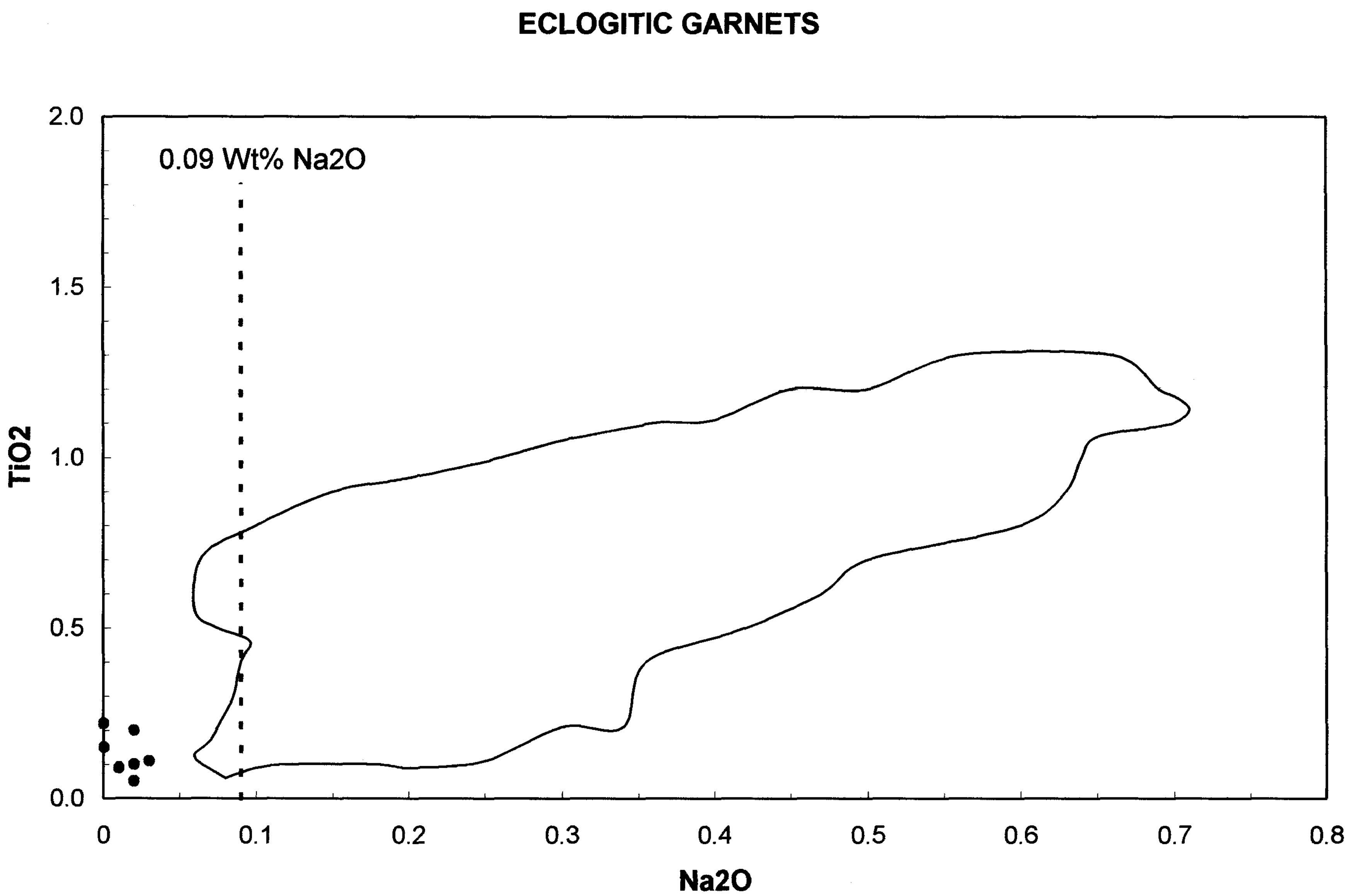
Electron microprobe mineral analysis is a comparative analytical technique in which the x-ray yields of mineral standards of accurately known composition are compared with the x-ray yields of the unknown minerals. It is important that appropriate standards be used for each unknown mineral species, to minimize certain inequities in the data reduction programs. Garnet reference standards are used for pyrope mineral analyses, clinopyroxene standards for unknown clinopyroxenes, ilmenite for ilmenite and chromite for chromite, etc.

A backscattered electron detector, BSE, on the electron microprobe is used to examine in detail, the surface and possible compositional variation on the polished surface of each mineral grain. The backscattered electron detector displays by variation in grey level intensity on a CRT screen. The variation in mean atomic number of the area rastered by the electron beam reflects compositional variation. Using the backscattered electron detector, the surface of each grain is examined at a magnification range of 40-2000 times in an attempt to identify and avoid mineral inclusions and fine-scale cracks that might perturb the electron beam-sample interaction and lead to analytical error.

Throughout the entire analytical procedure, all attempts are made to ensure reproducibility and analytical accuracy. Special attention is given to chrome and the reference mineral standards are repeatedly and intermittently analyzed to ensure optimum accuracy.

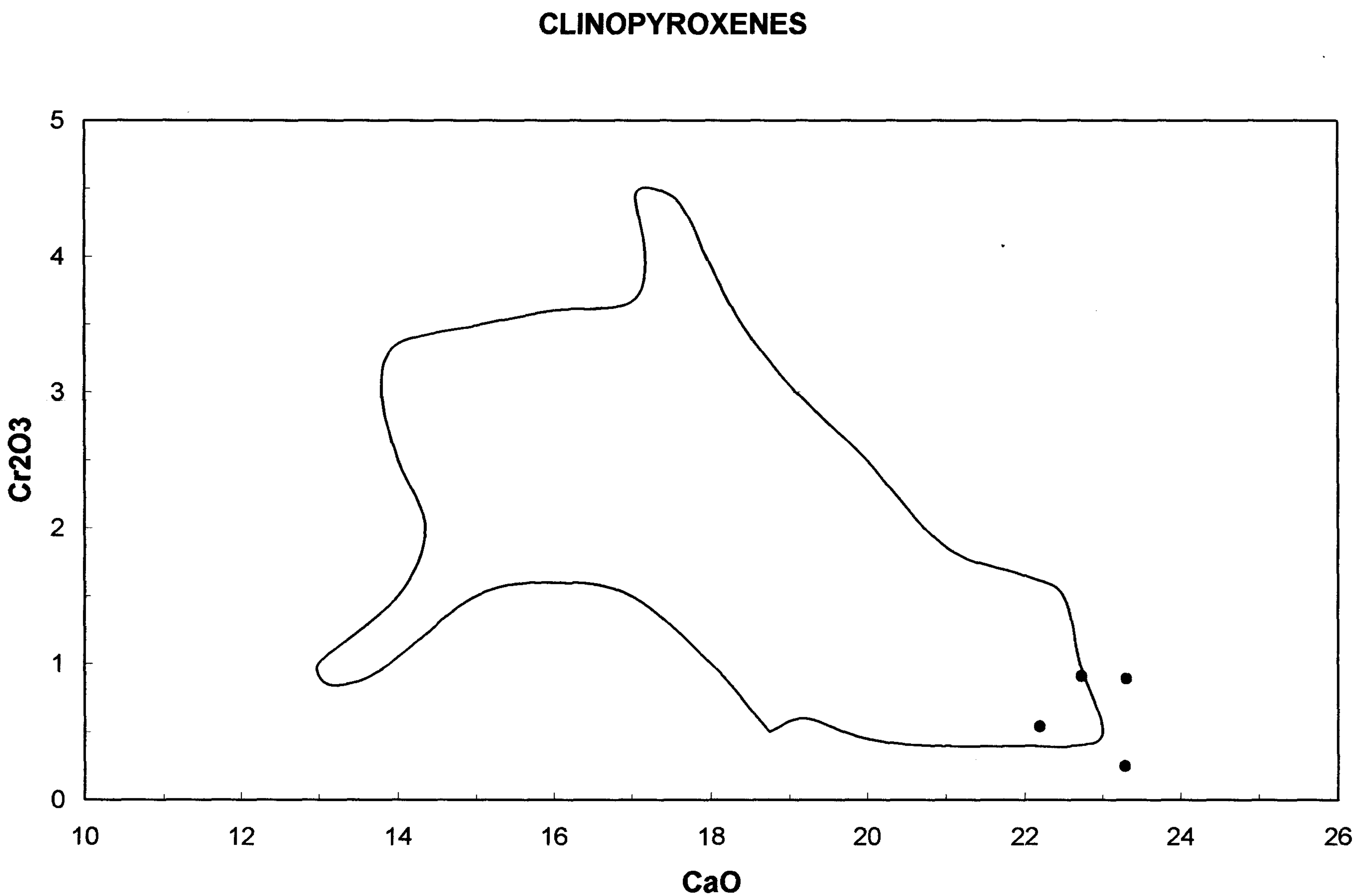
Fry Inlet Property
Microprobing Results - ECLOGITE

		Sample	Grain	SIO2	TIO2	AL2O3	CR2O3	FEO	MGO	MNO	CAO	NA2O	TOTAL
1	ECL	2101	3	37.6	0.11	21.87	0.01	27.1	2.3	1.61	9.2	0.03	99.83
2	ECL	2101	4	38.03	0.22	22.05	0.09	20.85	2.17	2.62	14.47	0	100.5
3	ECL	2101	5	37.77	0.2	22.14	0.08	21.81	1.75	3.55	12.97	0.02	100.29
4	ECL	2101	6	38.01	0.1	21.84	0.02	24.87	2.57	1.14	11.65	0.02	100.22
5	ECL	2102	2	37.62	0.05	21.88	0.05	27.15	2.09	1.41	9.75	0.02	100.02
6	ECL	2104	1	37.26	0.05	22.67	0.12	29.73	6.55	0.3	3.1	0.02	99.8
7	ECL	2104	3	37.95	0.09	21.89	0	26.6	1.81	1.73	10.34	0.01	100.42
8	ECL	2119	3	37.71	0.15	22.45	0.03	25.3	3.45	0.42	10.68	0	100.19

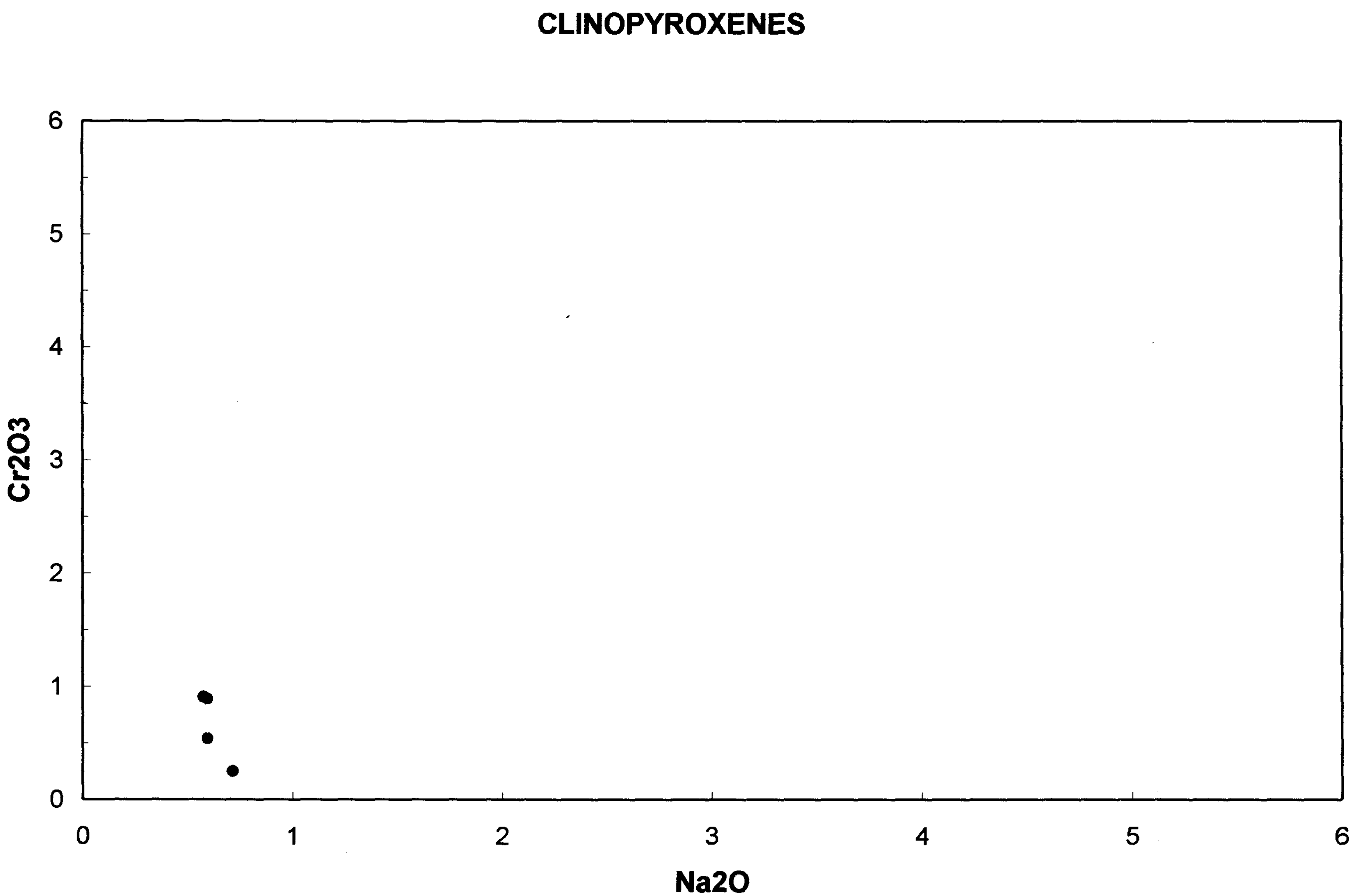


ECLOGITIC GARNETS
0.09 Wt% Na2O
TiO2
Na2O
2.0
1.5
1.0
0.5
0.0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8

		Sample	Grain	SIO2	TIO2	AL2O3	CR2O3	FEO	MGO	MNO	CAO	K2O	NA2O	TOTAL
1	CPX	2101	1	54.76	0.03	1.28	0.25	3.88	16.17	0.13	23.28	0	0.71	100.49
2	CPX	2101	2	53.18	0.13	2.27	0.91	5.05	15.29	0.14	22.72	0	0.57	100.26
3	CPX	2102	1	54.85	0.02	1.47	0.54	3.76	16.97	0.16	22.19	0	0.59	100.55
4	CPX	2103	1	54.3	0.01	1.32	0.89	3.46	16.18	0.1	23.3	0	0.59	100.15
5	CPX	2103	2	54.65	0.01	1.31	0.37	4.19	16.51	0.29	22.7	0	0.49	100.52
6	CPX	2104	6	54.72	0.01	1.07	0.36	4.55	16.49	0.14	22.44	0	0.55	100.33
7	CPX	2105	1	54.39	0.05	1.64	0.69	5.41	16.01	0.16	21.33	0	0.62	100.3
8	CPX	2105	2	54.46	0	0.94	0.84	3.77	16.59	0.11	23.02	0	0.56	100.29
9	CPX	2106	6	54.55	0.04	0.99	0.46	3.89	16.54	0.18	23.51	0	0.39	100.55
10	CPX	2107	2	54.04	0.06	1.55	0.51	4.16	16.35	0.32	22.65	0.01	0.54	100.19
11	CPX	2108	1	54.25	0.01	1.42	0.38	4.49	15.96	0.19	22.81	0	0.73	100.24
12	CPX	2108	2	53.71	0.13	1.79	0.74	5.18	15.91	0.19	22.25	0	0.49	100.39
13	CPX	2110	7	52.94	0.08	1.88	0.51	4.56	15.58	0.12	24.01	0	0.33	100.01
14	CPX	2110	8	53.65	0.04	2.28	0.25	4.67	16.2	0.15	21.73	0	0.91	99.88
15	CPX	2110	9	52.21	0	2.8	0.72	5.89	15.32	0.18	22.37	0	0.51	100
16	CPX	2110	10	54.94	0	0.93	0.3	4.81	15.94	0.25	22.61	0	0.46	100.24
17	CPX	2110	11	54.52	0.1	2.02	1.08	4.08	15.48	0.07	22.13	0	0.77	100.25
18	CPX	2112	2	53.95	0.01	1.18	0.75	4.65	16.39	0.28	22.59	0	0.66	100.46
19	CPX	2113	1	53.14	0.06	2.53	0.61	4.13	15.62	0.12	22.63	0	0.9	99.74
20	CPX	2113	2	53.82	0	0.97	0.1	4.47	16.76	0.13	23.21	0	0.37	99.83
21	CPX	2114	1	53.45	0.05	1.46	0.41	5.14	15.65	0.23	22.6	0	0.86	99.85
22	CPX	2114	2	53.99	0.06	1.52	0.67	3.85	17.34	0.17	21.92	0	0.57	100.09
23	CPX	2115	4	53.5	0.09	1.63	0.64	5.56	16.22	0.17	21.82	0	0.5	100.13
24	CPX	2119	4	53.85	0.05	1.22	0.9	4.07	16.4	0.12	23.12	0	0.65	100.38
25	CPX	2123	1	53.18	0.08	1.63	0.79	5.06	15.99	0.22	22.6	0	0.73	100.28



CLINOPYROXENES
Cr2O3
CaO
0
1
2
3
4
5
10
12
14
16
18
20
22
24
26


CLINOPYROXENES
Cr2O3
Na2O
0
1
2
3
4
5
6