4.0 QUARRY DEVELOPMENT PLANS

4.1 General

The current quarry development plans presented herein are based on available survey data and subsurface information. Several extrapolations have been made on the data points to generate drawings. Additional investigation and drilling will be carried out during the quarry development operations to define the extent and location of the shale units in advance. Survey and subsurface details will be recorded as part of quarry development and reclamation activities.

As discussed in Section 1.2, approximately 794,400 m^3 of shale will be required. The following sections describe the development plans for four shale quarries – Mt. Fuji, West Twin, East Twin, and Landfill. The development of these four quarries has the potential to supply 1,350,000 m^3 (in-situ) of shale cover material. The conservatism built into the quarry plans will ensure that the necessary cover volumes are available.

An additional 180,350 m^3 of armour sand and gravel will also be required. This material will be excavated from the Twin Lakes sand and gravel deposit.

At the current time no quarry locations have been selected for either bedding or rip rap materials that will be required for erosion protection of transition zone tailings located along the shoreline of the Reservoir. It is possible that these materials may be screened form the material excavated from the Surface Cell Spillway. There are several known source for riprap material at the site which have been used during mine operations for armouring requirements. These sites will be targeted for geotechnical investigations prior to cover construction.

At the time of preparation of this report, CanZinco is exploring three options for construction of the covers, as summarized below:

1) Use the available Nanisivik Mine fleet of equipment and manpower to place the cover material over two construction seasons.
2) Contract a fleet of equipment from outside contractors and place the cover material in one construction season.
3) Transfer the mine fleet of equipment to the GN and construct covers over three to four seasons as a training exercise for operators.

No final decision on the contracting strategy has yet been made.

In order to establish a maximum extraction rate for the quarries, it was assumed that the cover materials would be extracted using the existing mine equipment fleet and manpower. Appendix III contains a summary of the existing mine fleet, as well as information on trip times from various quarries and loading rates. This information was used to make an estimate of the extraction rates from each quarry.

As a minimum, two shale quarries and possibly a third, will be required to supply the necessary volume of cover material. The Landfill Quarry will be used to provide cover for the landfill. To minimize the amount of ground disturbance associated with quarry development and the subsequent need for reclamation, it is proposed to operate the Mt. Fuji and West Twin quarries concurrently to provide the initial volumes of cover materials. Once these two quarries have both been exhausted and if additional cover material is still required, quarry development will then take place at the East Twin Quarry. As required, upon completion of placement of portions of the shale cover material, quarry development operations will proceed to the Twin Lakes sand and gravel deposit.

The theoretical maximum extraction rate is determined by the haulage capacity of the fleet. In estimating a maximum extraction rate for the shale quarries, it was assumed that the mine equipment fleet was distributed among the two operating quarries, as shown in Tables 3 and 4. The maximum extraction rate for each quarry was calculated on the basis of all equipment being available, the noted cycle times provided in Appendix III, as well as the productivity rates shown in each table. It was assumed that drilling, blasting, ripping and loading would have to match this theoretical maximum haulage rate.

In reality, the extraction rate may be less than this value, due to numerous factors, such as the following:

- Scheduling of quarrying and material placement at various locations.
- Equipment availability.
- Weather conditions and access.

If additional shale cover is required from a third quarry, the theoretical maximum extraction rate was based on having the entire fleet working out of the East Twin Quarry. In reality, scheduling will dictate when each quarry is opened, as access to East Twin Quarry is only possible during the winter, early spring, and late fall. These dates can vary with spring thaw and winter frost penetration. Therefore, extraction of shale from this quarry may be done at the same time as the other two quarries once the need for additional cover material is determined.

For the Twin Lakes sand and gravel quarry, the theoretical maximum extraction rate was calculated on the basis of having the entire fleet of equipment available. This is theoretically possible only if all the shale covers are completed. In reality, placement of the sand and gravel layer will be carried out in conjunction with the shale cover construction, as individual portions of the shale cover areas are completed.

A detailed cover placing schedule will be worked out by the site supervisor, who will also determine the optimum shale borrow areas to be used for each cover portion.

4.2 Mt. Fuji Quarry

The Mt. Fuji Quarry is located approximately 0.5 km west of the Surface Cell. The Mine Grid coordinates for the Mt. Fuji Quarry, as noted in Appendix I, are:

1. 13600 N 16750 E
2. 13600 N 16450 E
3. 13820 N 16450 E
4. 13820 N 16700 E

The Mt. Fuji Quarry development plan has been designed to provide approximately 350,000 m^3 (in-situ) of shale cover material. This volume was estimated from visual reconnaissance, available published geological information for the Nanisivik area and survey data of the quarry area. This quarry therefore can provide approximately 44% of the required cover material. The Mt. Fuji Quarry is considered to be the most viable source of shale cover material, due to it's proximity to the Surface Cell. Figure 5 is a current photographic view of the quarry.

4.2.1 Geometry

The quarry will be developed using 5 m high benches with a working face of 84° (1H:10V). Upon closure of the Mt. Fuji Quarry, all benches will be reduced and the final overall rock slope will be 33° (1.5H:1V). The final soil slopes will be 18° (3H:1V). The quarry floor will have a final grade of 1% so to direct surface water and prevent ponding. Figure 6 details the final quarry geometry for the Mt. Fuji Quarry.

4.2.2 Estimated Waste/ Overburden Volumes and Stockpile Locations

The approximate overburden volume for the Mt. Fuji Quarry is 15,000 m^3 (in-situ). The overburden material will be kept separate from the shale cover material and will be stockpiled at a slope not exceeding 18°. The overburden stockpile will be located immediately northwest of the Mt. Fuji Quarry, as shown in Figure 6.

Prior to quarry development, the stockpile location will be surveyed and staked. Upon completion, some overburden material will be used to re-grade portions of the quarry. The stockpile will then be re-graded to a final slope of 18°.

4.2.3 Extraction Method and Rate of Production

A combination of ripping and, drill and blast methods will be used to extract the shale from the Mt. Fuji Quarry. The working benches will be 5 m high and a minimum width of 7.5 m. Where active hauling is taking place, 30 m wide benches will be required. The extraction sequence of the shale from the Mt. Fuji Quarry is illustrated in Figure 7.

The following table illustrates the rate of production from the Mt. Fuji Quarry, assuming nine trucks, with a 82% availability, for a 28 week year.

Table 3 - Rate of Production Mt. Fuji Quarry

Rate of Production Mt. Fuji Quarry				
		Overburden	**Shale**	**Total**
Volume of material (in-situ)	m^3	15,000	350,000	365,000
Bulking Factor 33%	1.33	19,950	465,500	485,450
Truck Loads @ m3/tr	10	1,995	46,550	48,545
Current # of trucks	9			
Availability*	82%			
Loads/truck @ 82% avail	7.38	270.3	6,307.6	6,577.9
Loads/day/truck**	36			
Total days required		8	175	183
Scheduled days/week	7			
Total # of weeks		1.1	25.0	26.1
Optimum time/year = weeks	28			
Total # of years		0.04	0.89	0.93

*Note: Assumed availability based on past Nanisivik Mine experience.
**Note: Based on 1.8 loads per hour for a 20 hour day.

The maximum extraction rate for the Mt. Fuji Quarry, based on the above assumptions is:

- Maximum Extraction Rate = 36 Loads per day/Truck X 10 m^3 per Truck X 9 Trucks
- = 3,240 m^3 / Day
- or 2,436 m^3 / Day (in-situ volume)

4.2.4 Surface Water Management

A drainage ditch is currently located between the Mt. Fuji Quarry and the road to the airport. A culvert will be installed in the access road to the quarry to ensure that water flow is not impeded. Throughout quarry development, the geometry of the active quarry will be altered. Berms rather than ditches will be constructed around the perimeter of the quarry excavation to deflect runoff from precipitation and melt water. Current ditches will be maintained to ensure surface runoff will not be impeded. Diversion berms will be installed on an as-required basis.

Within the active Mt. Fuji Quarry area, water will not accumulate, since a minimum grade of 1% towards the quarry entrance will be maintained.

4.3 West Twin Quarry

The West Twin Quarry is located approximately 0.25 km northwest of the Surface Cell. The Mine Grid coordinates for the West Twin Quarry are:

1. 14100 N 17250 E
2. 14000 N 17100 E
3. 14150 N 17000 E
4. 14250 N 17150 E

The West Twin Quarry development plan has been designed to provide approximately 150,000 m^3 (in-situ) of shale cover material. This volume was determined through visual reconnaissance, available published geological information for the Nanisivik area, geological information from borehole data, and survey data. Figure 8 contains a recent photo of the West Twin Quarry looking north from the Surface Cell.

A large pyrite stringer runs through the centre of the West Twin Quarry. This development plan will result in the pyrite being left in place. The pyrite material is visually distinct from the shale material, in both colour and physical characteristics. Visual control will be exercised as part of the QA/QC program to ensure that pyrite material is left in place. In addition, a minimum 1.5 m wide buffer zone will be left adjacent to the pyrite material to avoid over excavation. This type of visual control is commonly practised in mining operations and is not expected to be problematic. If pyrite is exposed during quarry development, the pyrite will be covered during reclamation with a suitable material.

4.3.1 Geometry

The quarry will be developed using 5 m high benches with a working face of 84° (1H:10V). Upon closure of the West Twin Quarry all benches will be reduced and, the final overall rock slope will be 33° (1.5H:1V). The final soil slopes will be 18° (3H:1V). The quarry floor will have a final grade of 1% to direct surface water and prevent ponding. Figure 9 details the final quarry geometry for the West Twin Quarry.

4.3.2 Estimated Waste/ Overburden Volumes and Stockpile Locations

The approximate overburden volume for the West Twin Quarry is 21,000 m^3 (in-situ). The overburden material will not be mixed with the shale cover material and will be stockpiled at an angle not exceeding 18°. The overburden stockpile will be located immediately east of the West Twin Quarry, as shown on Figure 9.

Prior to quarry development, the stockpile location will be surveyed and staked. Upon completion, the overburden material will be used to re-grade portions of the quarry floor. The stockpile will then be re-graded to a final slope of 18°.

4.3.3 Extraction Method and Rate of Production

A combination of ripping and, drill and blast methods will be used to extract the shale from the West Twin Quarry. The working benches will be 5 m high and a minimum width of 7.5 m. Where active hauling is taking place, 30 m wide benches will be required. The extraction sequence of the shale from the West Twin Quarry is illustrated in Figure 10.

The following table illustrates the rate of production for the West Twin Quarry, assuming five trucks, with a 82% availability, for a 28 week year.

Table 4 - Rate of Production West Twin Quarry

	Rate of Production West Twin Quarry			
		Overburden	**Shale**	**Total**
Volume of material (in-situ)	m^3	21,000	150,000	171,000
Bulking Factor 33%	1.33	27,930	199,500	227,430
Truck Loads @ m3/tr	10	2,793	19,950	22,743
Current # of trucks	5			
Availability*	82%			
Loads/truck @ 82% avail	4.10	681.2	4,865.9	5,547.1
Loads/day/truck**	36			
Total days required		19	136	154
Scheduled days/week	7			
Total # of weeks		2.7	19.4	22.0
Optimum haul time/year = weeks	28			
Total # of years		0.10	0.69	0.79

*Note: Assumed availability based on past Nanisivik Mine experience.
**Note: Based on 1.8 loads per hour for a 20 hour day.

The maximum extraction rate for the West Twin Quarry, based on the above assumptions is:

- Maximum Extraction Rate = 36 Loads per day/Truck X 10 m^3 per Truck X 5 Trucks
- = 1800 m^3 / Day
- or 1353 m^3 / Day (in-situ volume)

4.3.4 Surface Water Management

No drainage ditches are located near the West Twin Quarry. Throughout quarry development, the geometry of the active quarry will be altered. Berms will be constructed around the perimeter of the excavation to divert runoff from precipitation and melt water from entering the quarry. Diversion berms will be installed on an as-required basis.

Within the active quarry area, the floor of the quarry will be sloped at a minimum grade of 1% towards the quarry entrance, to prevent water accumulation.

4.4 East Twin Quarry

The East Twin Quarry is located approximately 1.5 km southeast of the Surface Cell. However, haulage distance will be much further. The Mine Grid coordinates for the East Twin Quarry are:

1. 12600 N 19000 E
2. 13100 N 19000 E
3. 13100 N 19500 E
4. 12600 N 19500 E

The East Twin Quarry is designed to provide approximately 750,000 m^3 (in-situ) of shale cover material. This volume was determined through visual reconnaissance, geological information of Nanisivik, borehole data, and survey data. The East Twin Quarry therefore provides approximately 95% of the required shale cover material for the project. Figure 11 is a current photographic view of the quarry looking south from the East Twin Lake.

4.4.1 Geometry

The quarry will be developed using 5 m high benches with a working face of 84° (1H:10V). Upon closure of the East Twin Quarry, all benches will be reduced and the final overall rock slope will be 33° (1.5H:1V). The final soil slopes will be 18° (3H:1V). The quarry floor will have a final grade of 1% so that surface water drains from the quarry. Figure 12 details the final quarry geometry for the East Twin Quarry.

4.4.2 Estimated Waste/ Overburden Volumes and Stockpile Locations

The overburden volume for the East Twin Quarry is approximately 65,000 m^3 (in-situ). The overburden material will be kept separate from the shale cover material and will be stockpiled at an angle not exceeding 18°. The overburden stockpile will be located immediately north of the East Twin Quarry, as shown in Figure 12.

Prior to quarry development the stockpile location will be surveyed and staked. Upon completion, the overburden material will be used to regrade portions of the quarry floor. The stockpile will then re-graded to a final slope of 18°.

4.4.3 Extraction Method and Rate of Production revise

A drill and blast method will be used to extract the shale from the East Twin Quarry. The working benches will be 5 m high and a minimum width of 7.5 m. Where active hauling is taking place, 30 m wide benches will be required. The extraction sequence for the East Twin Quarry is illustrated in Figure 13.

The following table illustrates the rate of production for the East Twin Quarry assuming 14 trucks, with a 82% availability, for a 16 week year.

Table 5 - Rate of Production for East Twin Quarry

		Rate of Production East Twin Quarry		
		Overburden	**Shale**	**Total**
Volume of material	M^3	65,000	750,000	815,000
Bulking Factor 33%	1.33	86,450	997,500	1,083,950
Truck Loads @ m3/tr	10	8,645	99,750	108,395
Current # of trucks	14			
Availability*	82%			
Loads/truck @ 82% avail	11.48	753.0	8,689.0	9,442.1
Loads/day/truck**	28			
Total days required		27	311	338
Scheduled days/week	7			
Total # of weeks		3.9	44.4	48.3
Optimum time/year = weeks	16			
Total # of years		0.24	2.78	3.02

*Note: Assumed availability based on past Nanisivik Mine experience.
**Note: Based on 1.4 loads per hour for a 20 hour day.

The maximum extraction rate for the East Twin Quarry, based on the above assumptions is:

- Maximum Extraction Rate = 28 Loads per day/Truck X 10 m^3 per Truck X 14 Trucks
- = 3,920 m^3 / Day
- or 2,947 m^3 / Day (in-situ volume)

4.4.4 Surface Water Management

A drainage berm will be installed adjacent to the 390 m (asl) contour, diverting runoff from the East Twin Quarry away from the East Twin Lake. Throughout the quarry development, the geometry of the active quarry will be altered. To prevent runoff from precipitation and meltwater from entering the excavation, berms may be required around the perimeter of the quarry. Diversion berms will be installed on an as required basis.

Within the active quarry area, water will not accumulate since a minimum 1% slope towards the quarry entrance will be maintained.

4.5 Landfill Quarry

Shale from the Landfill Quarry will be used to cover the Nanisivik Mine landfill. This quarry will be used in conjunction with the other three quarries due to its proximity to the landfill. Subsurface and survey data for this area is not available. A visual reconnaissance and review of available published geological information for the Nanisivik area indicates that upwards of 100,000 m^3 of shale is available at this site, which is expected to provide the required 50,000 m^3 required for the landfill cover. A subsurface investigation and survey of the quarry will be conducted to confirm the quantity of shale, overburden material and production sequences, before extraction proceeds.

4.6 Twin Lakes Sand and Gravel Quarry

The Twin Lakes sand and gravel deposit is located between the East and West Twin Lakes. Figure 14 contains a recent photo of the Twin Lakes sand and gravel deposit. The Mine Grid coordinates are:

1. 13500 N 18375 E
2. 13000 N 18750 E
3. 13000 N 18000 E

Approximately 180,350 m^3 of armouring sand and gravel material are required for surface reclamation covers. The Twin Lakes sand and gravel deposit contains a sufficient volume of protective armour material to satisfy the requirements of the surface reclamation covers. This was determined utilizing topographic information and available borehole data. Three boreholes were drilled in the deposit as part of the hydraulic connectivity assessment by Tordon (1998). The location of the boreholes is illustrated on Figure 15. These boreholes (TC-22, TC-23, TC-24) ranged in depth from 10.2 m to 13.3 m and the sand and gravel material was encountered throughout much of the borehole profile. On the basis of this work, the deposit it estimated to contain a minimum thickness of 10 m of sand and gravel. Due to its aerial extent, it is not necessary to develop the entire thickness of the deposit to recover the required volumes. The required volume of material will be obtained by excavating into the top 2 m of the deposit. The bottom of the quarry will remain at least 2 m above the level of West Twin Lake (elevation 371 m) to ensure that hydraulic connectivity does not develop between the two water bodies.

4.6.1 Geometry

The sand and gravel will be excavated from this area by ripping and blasting, should frozen conditions dictate. Berms will be maintained to capture runoff.

4.6.2 Estimated Waste/ Overburden Volumes and Stockpile Locations

There is no overburden at the Twin Lakes sand and gravel deposit. Ground ice was encountered during the previous investigation work. If accumulations of ice are encountered during quarry development the site supervisor will determine a designated disposal area such as the adjacent Reservoir.

4.6.3 Extraction Method and Rate of Production

The sand and gravel at the Twin Lakes sand and gravel Quarry will be ripped progressively with a large dozer.

The following table illustrates the rate of production for the Twin Lakes sand and gravel Quarry, assuming 14 trucks, with a 82% availability, for a 28 week year.

Table 6 - Rate of Production Twin Lakes Sand and Gravel Quarry

	Rate of Production Twin Lakes Sand & Gravel			
		Overburden	Sand & Gravel	Total
Volume of material (in-situ)	m^3	0	180,350	180,350
Bulking Factor 33%	1.33	0	239,865	239,865
Truck Loads @ m3/tr	10	0	23,986	23,986
Current # of trucks	14			
Availability*	82%			
Loads/truck @ 95% avail	11.48	0	2,089	2,089
Loads/day/truck**	24			
Total days required		0	87	87
Scheduled days/week	7			
Total # of weeks		0.0	12.4	12.4
Optimum time/year = weeks	28			
Total # of years		0.00	0.44	0.44

*Note: Assumed availability based on past Nanisivik Mine experience.
**Note: Based on 1.2 loads per hour for a 20 hour day.

The maximum extraction rate for the Twin Lakes sand and gravel Quarry, based on the above assumptions is:

- Maximum Extraction Rate = 24 Loads per day/Truck X 10 m^3 per Truck X 14 Trucks
- = 3,360 m^3 / Day
- or 2,526 m^3 / Day (in-situ volume)

4.6.4 Surface Water Management

Two seasonal streams are located near the Twin Lakes sand and gravel deposit, which drain into the East Twin Lake. A diversion berm will be constructed between the Twin Lakes sand and gravel Quarry and the streams, to prevent siltation of the streams. Grading for the Twin Lakes sand and gravel Quarry is to be directed towards West Twin Lake. A minimum 1% slope towards the West Twin Lake will be maintained on the quarry floor.

5.0 QUARRY RECLAMATION PLANS

5.1 Reclamation Objectives

Reclamation has been defined as the return of disturbed land to productivity equivalent to, or better than, the pre-disturbed state. Typically, reclamation consists of both physical and biological techniques. The biological techniques are used to re-establish a cover of representative plants; while physical works, such as recontouring, are used to stabilize the ground surface. INAC (1987) notes "The Polar Desert encompasses most of the Arctic Islands. Because of the severe environment, no vegetation species have been identified for this region, limiting reclamation practices to drainage and erosion control." The reclamation activities at the Nanisivik quarries will accordingly focus on the physical aspects of the reclamation.

One principle that has been followed during the development of this plan is that there should be minimal ongoing maintenance. The slope angles have been chosen accordingly. The final erosion control measure (berms) will also be located in the field with this principle in mind.

All quarry areas will be cleaned of debris, garbage, wire, and unused explosives upon completion of the quarry closure. Temporary berms will be removed. Unused quarried material will be flattened, and used to re-grade uneven surfaces within the quarry. The quarry floors will have a minimum slope of 1% upon completion to allow for adequate drainage. Due to sparse vegetation and a limited growing season at the mine site, re-vegetation measures will not be carried out. The quarried area will not appear conspicuously different from its surroundings, which is generally covered with a veneer of broken rock.

5.2 Geometry

All the rock slopes will have a final slope of 33° (1.5H:1V), while all soil slopes will have a final slope of 18° (3H:1V).

5.3 Water Management

Erosion by surface water will be controlled with a combination of re-contouring, drainage swales and berms. The final locations of the swales and berms will be determined in the field, during the reclamation work. All culverts will be removed.

6.0 QUALITY ASSURANCE/ QUALITY CONTROL

Technical monitoring personnel, in combination with the Site Supervisor, will be present during the quarry extraction process. The specified shale cover material is expected to comprise a mixture of shale and dolomitic mudstone units, which are generally dark grey to black in colour. Dolomitic units can be distinguished from the shale on the basis of colour and physical characteristics. These include the light grey to white coloured doloarenite and medium grey to brown dolomitic mudstone units of the underlying Society Cliffs Formation and the white-grey and light red to tan members of the Middle and Upper Victor Bay Formations. These units are not considered acceptable for use as cover material, and can be visually rejected in the quarry. Pyrite stringers and material containing other sulphide minerals can also be visually rejected in the quarry.

In addition, monitoring personnel will ensure that the material from the quarry does not contain oversize material or excessive fines and conforms to the cover material specifications. Oversize material may be re-worked to be broken down or will be used to cover areas of the closed quarries.

The monitoring personnel will also inspect the blasted quarry walls, determining scaling requirements and to ensure that overburden slopes are graded to the appropriate angle for a safe work area. During excavation, survey control will be required to layout the pit geometry and grades as well as the permitted boundaries. The locations of all boreholes drilled to verify shale quantities will be recorded

Upon closure and reclamation, the final pit slopes and grades will be established and surveyed. Inspection personnel will situate the final configuration of any berms and erosion control requirements. A detailed survey of the area will be undertaken to provide as-built drawings of the final closure of the quarries.

7.0 PERFORMANCE MONITORING

Each year, for the first 5 years following the reclamation period, the physical integrity of the reclamation works, including the quarries will be inspected by a professional geotechnical engineer, licensed to practice in Nunavut. The site inspection will evaluate and document evidence of instability, ponding, frost action, erosion, and settlement. Animal borrows and re-vegetation of the reclaimed areas will also be noted.

8.0 CONTINGENCY PLANS

It is recognized that there is always some inherent uncertainty when it comes to a plan such as described in this report. The quarry development plans provide for 1,350,000 m^3 (in-situ) of shale cover material, which is about 1.7 times the estimated 794,400 m^3. If the cover quantity needs to be increased, additional volumes are available from other quarries.

9.0 CLOSURE

This report provides development and reclamation plans for various quarries required for closure work. These plans are based on survey information provided by other professionals and this information is assumed to accurate and representative of site conditions. Additional information and assessment of the cover designs will be summarized in reports forthcoming under separate cover. These additional reports should be reviewed in conjunction with the information provided herein.

We trust the above meets your present requirements. Thank you for allowing BGC to be of service, once again, to Nanisivik Mine. If you have any questions or require additional details, please contact the undersigned.

Respectfully submitted,
BGC Engineering Inc.
per:

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PERMIT TO PRACTICE
BGC ENGINEERING INC.
Signature
Date 06-FEB-'04.
PERMIT NUMBER: P 285
The Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories

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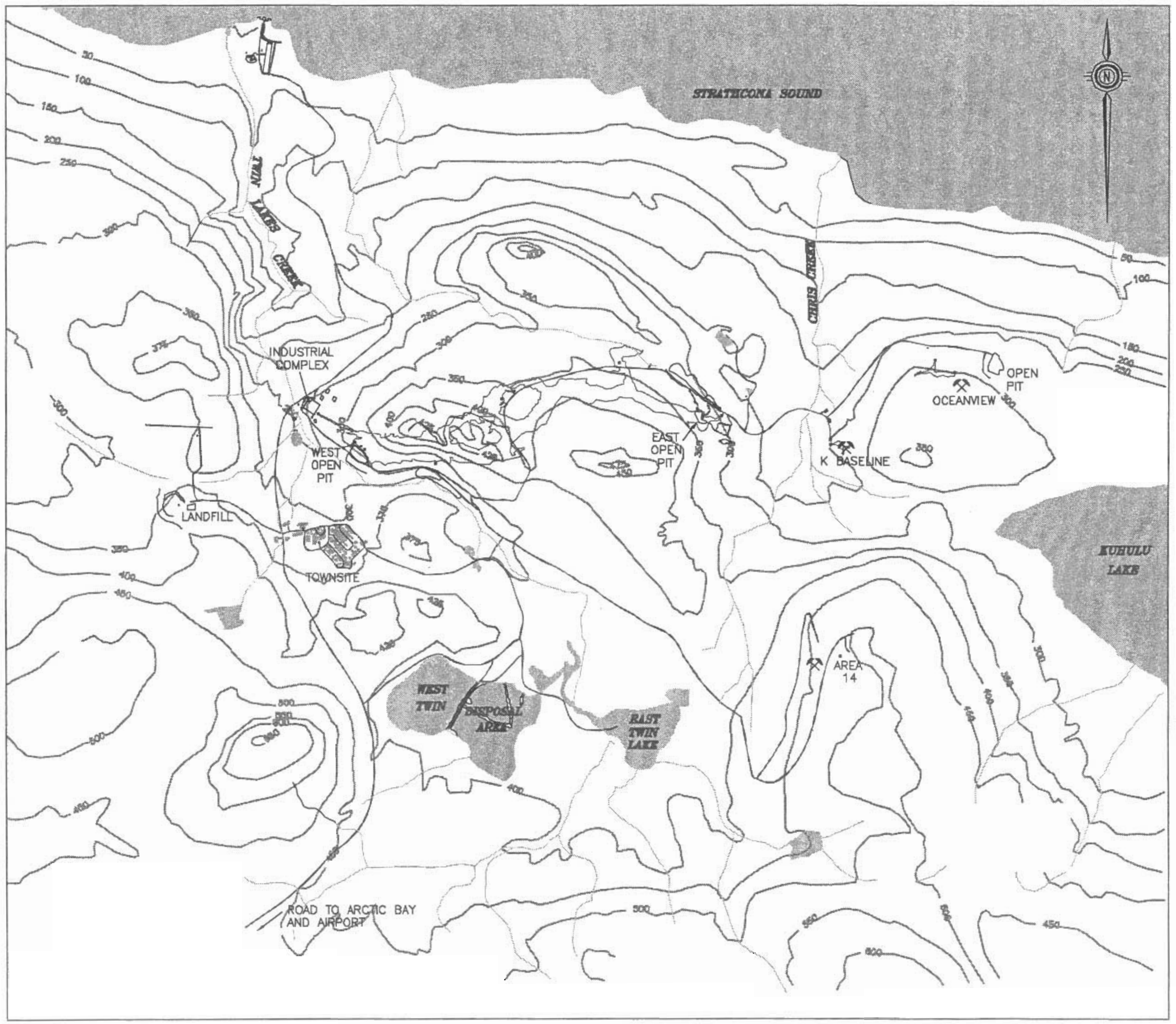
FIGURES



800m 0 800m 1.6km 2.4km

CLIENT: NANISIVIK MINE, A DIVISION OF CANZINCO LTD.

LEGEND

- ROAD
- GROUND CONTOUR (50 m INTERVAL)
- CREEKS, DRAINAGE, STREAMS, SHORELINE
- EXTENT OF UNDERGROUND WORKINGS

REV.	DATE	REVISION NOTES	DRAWN	CHECKED	APPROVED

SCALE:	AS SHOWN
DATE:	JAN 2004
DRAWN:	CJT
DESIGNED:	GKC
CHECKED:	JWC
APPROVED:	JWC

PROJECT: QUARRY DEVELOPMENT AND RECLAMATION PLAN

TITLE: SITE LOCATION PLAN

PROJECT No.	DWG No.	REV.
0255-008-07	1	0

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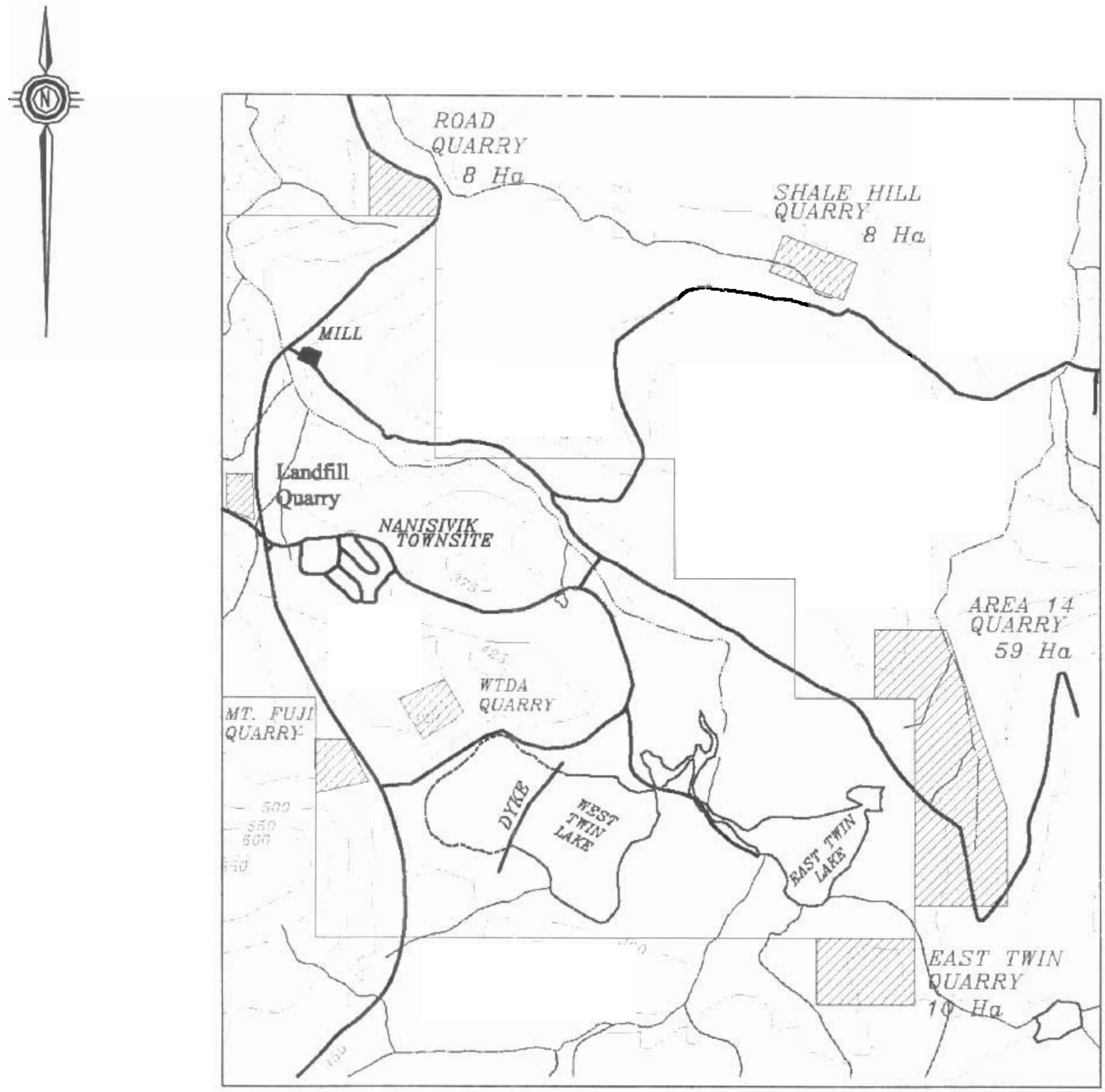

Permit issued by MACA/CGT

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SCALE:	As Shown	DESIGNED:	KFM
DATE:	JANUARY 2004	CHECKED:	KFM
DRAWN:	SLF	APPROVED:	JWC

CLIENT: **NANISIVIK MINE, A DIVISION OF CANZINCO LTD.**

BGC Engineering Inc.

AN APPLIED EARTH SCIENCES COMPANY

BGC

Calgary, Alberta. Phone: (403) 250-5185

PROJECT: QUARRY DEVELOPMENT AND RECLAMATION PLAN

TITLE: PERMITTED QUARRIES

PROJECT No.	DWG. No.	REV.
0255-008-07	2	0