



Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue
P.O. Box 2130
YELLOWKNIFE NT X1A 2P6
Phone (867) 669-0506
FAX (867) 873-6610

Application for:

New Land Use Permit ☒ **Amendment** ☐ **to** _____

<p>1. Applicant's name and mailing address:</p> <p>Dezé Energy Corporation Suite 206, 5102 – 50th Avenue Yellowknife, NT X1A 2P6</p>	<p>Fax number: 867-669-3395</p> <p>Telephone number: 867-669-3390</p>
<p>2. Head office address: Same as above</p> <p>Field supervisor: Radiotelephone:</p>	<p>Fax number</p> <p>Telephone number:</p>
<p>3. Other personnel (subcontractor, contractors, company staff etc.)</p> <p>Contractors, subcontractors and project staff have not identified at this time</p> <p>TOTAL: Total of approximately 350 people at peak capacity (Number of persons on site)</p>	
<p>4. Eligibility: (Refer to section 18 of the <i>Mackenzie Valley Land Use Regulations</i>)</p> <p>a)(i) a)(ii) a)(iii) b)(i) b)(ii) X</p>	
<p>5. a) Summary of operation (Describe purpose, nature and location of all activities.)</p> <p>The Taltson Expansion Project is a hydroelectric project that adds a new 36 MW power plant at the existing 18 MW Taltson Twin Gorges Plant, a new power canal tunnel, and intake at Twin Gorges, upgrades to Nonacho Control Structure, approximately 700 km of new transmission line, 4 substations, and temporary construction access roads and staging areas. Full details are contained in Section 11 of the Project Description, Taltson Hydroelectric Expansion Project – March 2007.</p> <p>b) Please indicate if a camp is to be set up. (Please provide details on a separate page, if necessary.)</p> <p>During the 3-year construction phase, 2 land-based camps will be located along the southern section of the Project, 2 floating barge-camps will be located along the central section of the Project, and existing mine accommodations will be used for the northern section of the Project. Workers will be flown from camp to the work-sites and laydown areas daily.</p> <p>Temporary land-based camps will be located at Twin Gorges and at Nonacho Lake during the 3-year construction phase.</p> <p>The temporary Twin Gorges camp will accommodate a maximum of 150 people during peak construction and over the 3-year life will accommodate an estimated 160,000 person-days. Camp will be located approximately 700 m east of the existing power facility camp. Camp will consist of 4 trailer units housing bedrooms and washrooms, each unit accommodating approximately 40 people. The kitchen will be a separate trailer unit. The total camp footprint will be approximately 4500 m².</p>	

The temporary Nonacho camp will accommodate a maximum of 100 people during peak construction, and over the 3-year life will accommodate an estimated 55,000 person-days. Camp will be located approximately 300 m southwest of the existing dam. The camp will consist of 3 trailer units housing bedrooms and washrooms, each unit accommodating approximately 40 people. The kitchen will be a separate trailer unit. The total camp footprint will be approximately 3000 m².

Two temporary floating barge-camps will be located at the barge staging-sites along the East Arm of Great Slave Lake during the summers of the 3-year construction phase. The barge-camps will accommodate up to 50 people each. Locations have not been selected at this time. The barge-camps will be moored and equipped with walkways to shore and will be completely self-contained. The barge-camps will accommodate an estimated 25,000 person-days each.

The Project will also make arrangements with Gahcho Kue, Snap Lake and Ekati or Diavik to use their existing accommodations.

During operations, the existing permanent camp at Twin Gorges will be used to accommodate operating staff. Although the camp is currently under-utilized, it will be expanded to accommodate an additional 6 people.

Site plans of the land-based construction and permanent camps are shown on the attached figures.

Camp water will be taken from Twin Gorges Forebay and Nonacho Lake for the land-based camps and Great Slave Lake for the barge camps. Camps trailers are plumbed for tap water on-demand. Water will be treated as required to meet Canadian Drinking Water Guidelines.

6. Summary of potential environmental and resource impacts (describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts). Use separate page if necessary.

Please see Section 17 of the Project Description, Taltson Hydroelectric Expansion Project – March 2007, for an overview of the potential environmental and resource impacts on air quality and climate, aquatic environment and fisheries resources, soil and vegetation, wildlife and habitat, heritage and archaeological resources, socio economics, and land and resources.

7. Proposed restoration plan (please use a separate page if necessary).

Temporary site disturbances that will be restored upon completion of activities include:

- Nonacho temporary camp,
- 8 staging areas along the Taltson River,
- 4 staging areas along the East Arm of Great Slave Lake,
- Twin Gorges temporary camp, and
- Material spoil area at Twin Gorges.

The camps and staging area preparations will include vegetation clearing and ground leveling. Removed vegetation and organic surface soils any will be stockpiled at the perimeter of the staging area. This stockpiled soils will be covered with natural vegetation removed during site preparations, or with synthetic material, to avoid erosion. Upon completion of the activities, all construction materials will be removed from site. Any stockpiled soils will be relocated onto the site to re-establish a growth medium. Stockpiled vegetation will be distributed across the site to encourage degradation and provide ground cover. The small footprint of the staging areas (approximately 2 ha) will result in high exposure to natural invasion and propagation of plants from the surrounding undisturbed vegetation.

The waste rock at Twin Gorges resulting from excavation of the North Gorge canal will be deposited in a natural low area to maintain aesthetic values of the area. The rock will remain exposed, as limited organic material exists in the area that could act as cover for the rock.

8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)

Amended Water Licence # N1L4-0154

Additional potential permits are identified in Table 7-1 on Page 7-4 of the Project Description, Taltson Hydroelectric Expansion Project – March 2007

Roads: **Yes** Is this to be a pioneered road? **Yes** Has the route been laid out or ground truthed? **Yes**

9. Proposed disposal methods.

a) Garbage:

Camp wastes will be sorted for incineration or removal from site. Putrescibles, papers and other such products will be incinerated daily on site. All other wastes will be appropriately stored on site and removed periodically to a registered solid waste facility.

Workers will be instructed to return food-related wastes, such as lunches, wrappings, etc. to camp. Work sites will be inspected daily at the end of each shift, to ensure that no food-related wastes are inadvertently left on site.

Inert construction wastes, such as waste steel, etc. will be stockpiled in the staging areas and removed from site prior to site reclamation, or alternatively a permit may be requested for burial in the Twin Gorges waste rock.

b) Sewage (Sanitary & Grey Water):

All camps will have a package sewage treatment system (i.e. SBR or Membrane) appropriately sized to accommodate the camp.

c) Brush & trees: Buck and scatter or windrow.

d) Overburden (Organic soils, waste material, etc.): Stockpile for restoration

10. Equipment (includes drills, pumps, etc.) (Please use separate page if necessary.)

The equipment use will be determined by the contractors retained to undertake the work. The following table identifies typical equipment and numbers for project type and size.

Type & Number	Size	Proposed Use
Tank drills (3)	Medium	Excavation of North Gorge canal at Twin Gorges and Nonacho Spillway
Mobile drills (6)	Small - Medium	Tower foundations
Excavators (3)	Large	Excavation of North Gorge canal at Twin Gorges and Nonacho Spillway; Winter road
Dozers (4)	Medium - Large	Excavation of North Gorge canal at Twin Gorges and Nonacho Spillway; Winter road
Haul Trucks (13)	Medium	Excavation of North Gorge canal at Twin Gorges and Nonacho Spillway
Graders (2)	Medium - Large	Nonacho and Twin Gorges sites; Winter roads
Mobile Cranes (6)	Medium	Tower construction
Helicopters (6)	Medium	Tower placement
Generators	Small and medium	Camp power; hand tools; etc.

11. Fuels

The fuel types, quantities and containers to be used will be determined by the contractors retained to undertake the work. The following table identifies fuel types and estimated containers and volumes typical for these activities, which could be on site at any one-time.

Fuel Type	# of Containers	Total Volume	Capacity of Containers (each)	Location
Diesel	4	40,000 L	10,000 L Enviro Tank	2 at Twin Gorges and 2 at Nonacho staging areas
Diesel	65	13,325 L	205 L Drums	5 at each of the 12 Staging areas plus Twin Gorges
Aviation Fuel	13	65,000 L	5000 L Enviro Tank	1 at each of the 12 staging areas plus Twin Gorges
Aviation Fuel	48	8200 L	205 L Drums	4 at each of the 12 Staging areas plus Twin Gorges to supplement Tanks
Gasoline	48	10,660 L	205 L Drums	4 at each of the 12 Staging areas plus Twin Gorges
Propane	26	26,000 lbs	100 lb bottles	2 at each of the 12 Staging areas plus Twin Gorges

12. Containment fuel spill contingency plans. (Please attach separate contingency plan if necessary).

The Fuel Spill Contingency Plan is attached

13. Methods of fuel transfer (to other tanks, vehicles, etc.)

Fuel will be transferred using pumps appropriately sized and designed for the containers.

14. Period of operation (includes time to cover all phases of project work applied for, including restoration)

Project Schedule is contained in Figure 13-6 on Page 13-20 of the Project Description, Taltson Hydroelectric Expansion Project – March 2007

15. Period of permit (up to five years, with maximum of two years of extension). 5 Years

16. Location of activities by map co-ordinates (attach maps and sketches) - NAD83

Yard No.	Site Name	Northing	Easting	Comment
1	Spillway	6700500	485000	South Valley Spillway
2	Indian Shack	6728000	495000	North end IS lake, at line crossing
3	King Lake	6775000	525000	King Lake north shore
4	Taltson Lake	6812000	536000	North Shore Taltson Lake near line
5	Taltson River	6834000	545000	
6	Nonacho Lake South	6854000	562000	Nonacho Lake by Walker Lake
7	Sparrow Bay	6879500	571500	Sparrow Bay near line crossing
8	Nonacho Lake North	6895000	594000	North Arm Nonacho Lake
	Nonacho Camp	6836400	554750	
	Twin Gorges Camp	6698100	478700	
	North Gorge Canal & Powerhouse	6698300 6698300 6698050	478500 477250 476700	East end at Forebay Powerhouse West end at Taltson River
	North Gorge Rock Spoil Area	6697900	478700	
	Nonacho Spillway	6836600	555000	
	Barge Landings	-	-	TBD
	Tower Pls	-	-	Key tower sites See Attached
	Proposed Winter Road	-	-	See Attached

Minimum latitude (degrees, minutes, seconds)

Maximum latitude (degrees, minutes, seconds)

Minimum longitude (degrees, minutes, seconds)

Maximum longitude (degrees, minutes, seconds)

Map Sheet no.

17. Applicant

Print name in full: Dan Grabke

Signature

Date

18. Fees

Type A - \$150.00 **

Type B - \$150.00 **

(**Application Fees are Non-Refundable**)

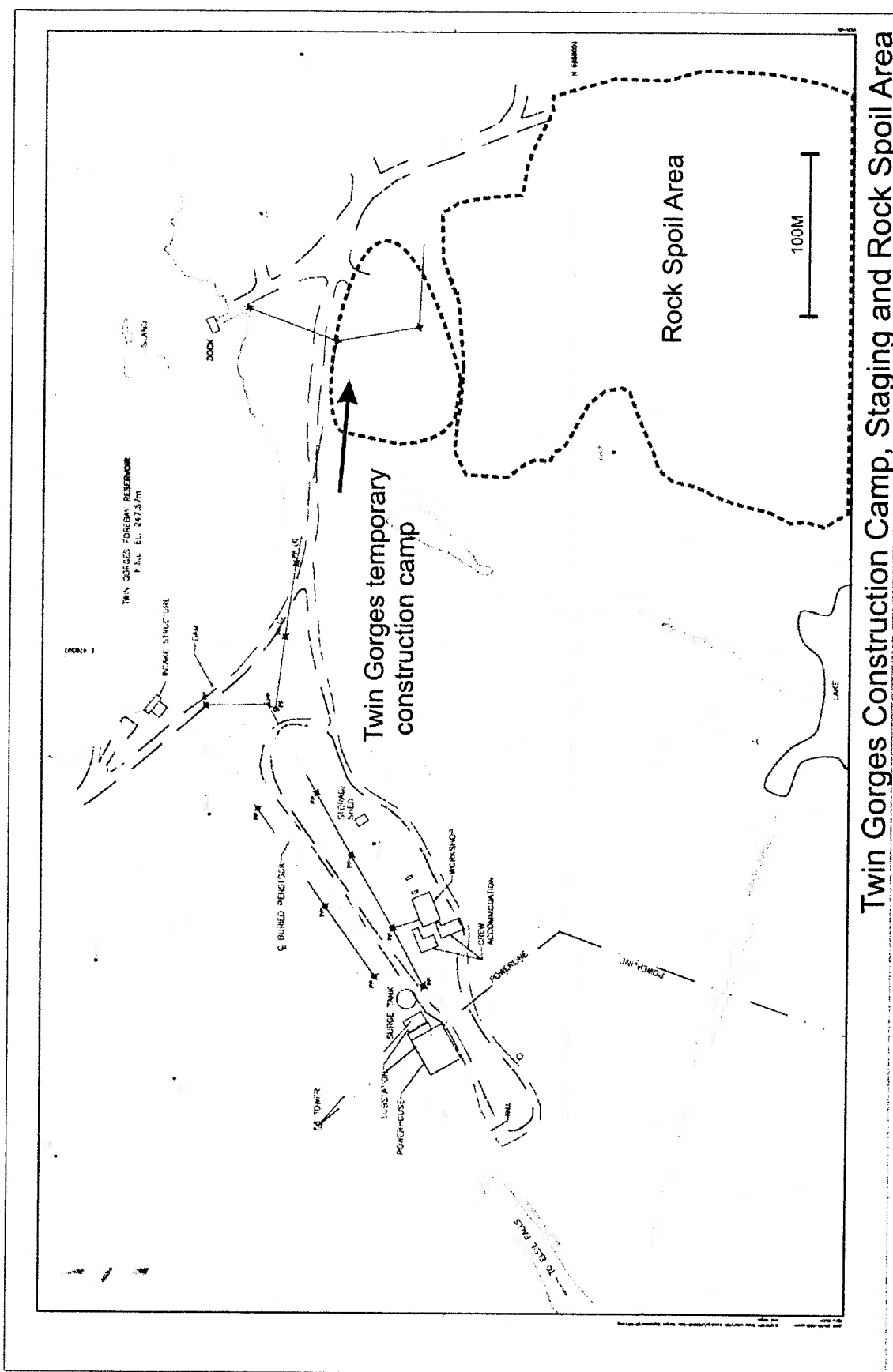
Land use fee:

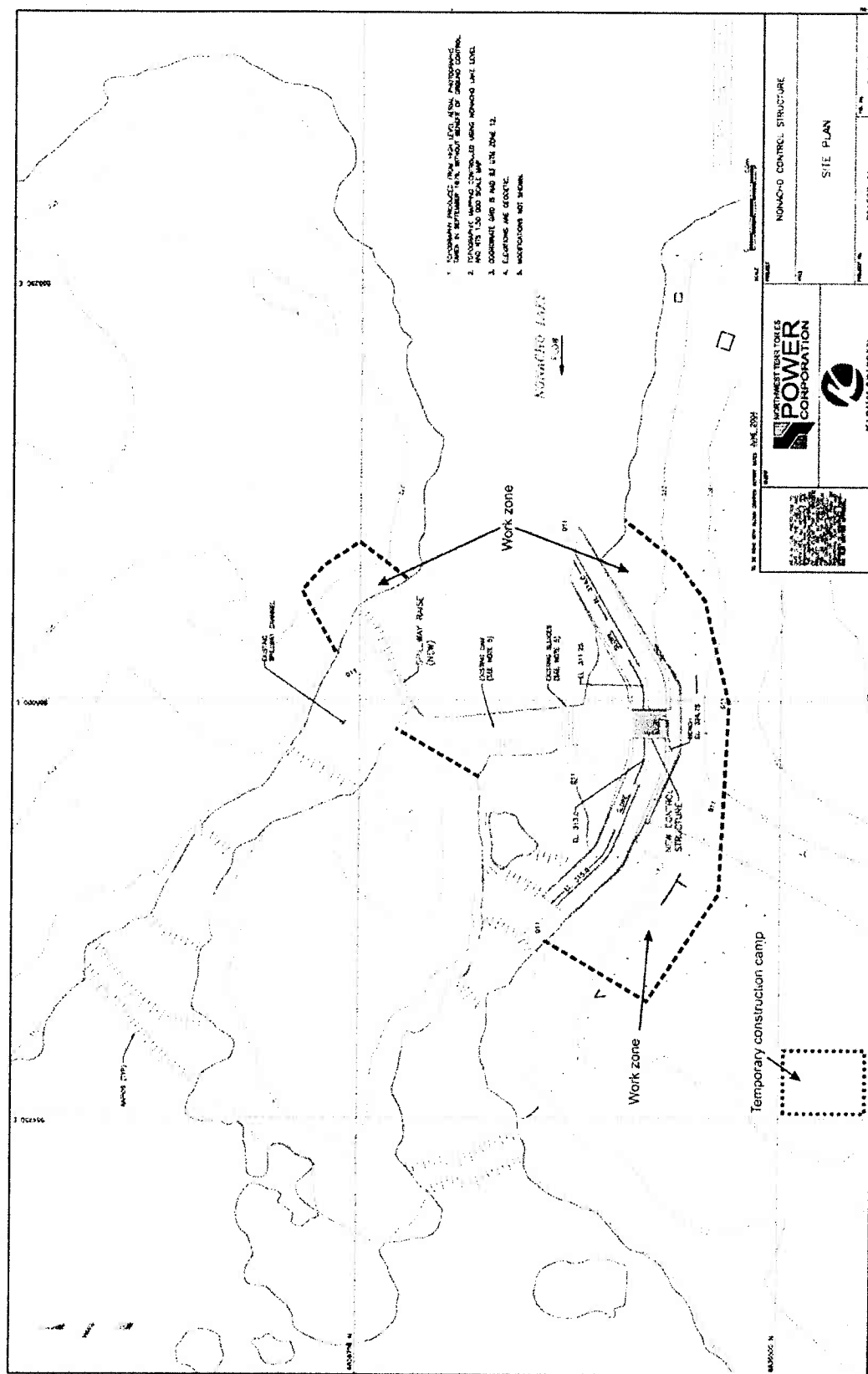
2645 hectares @ \$50.00/hectare \$ 132,250

Assignment fee \$50.00 \$ 50

Total application and land use fees \$ 132,300 Paid

Please make all cheques payable to "Receiver General of Canada"





Nonacho Lake Work Zones and Construction Camp - General Layout

TALTSON HYDROELECTRIC EXPANSION PROJECT

PRELIMINARY SPILL CONTINGENCY AND RESPONSE PLAN

1. INTRODUCTION

This is a preliminary spill contingency and response plan to be finalized once detailed design, construction logistics, and owner-construction contractor responsibilities and personnel are finalized.

The Taltson Hydroelectric Expansion Project is a hydroelectric development that adds a new 36 MW power plant at the existing 18MW Taltson Twin Gorges plant. This expanded generation facility would supply hydropower to the existing Ekati and Diavik diamond mines, Snap lake mine and Gahcho Kue mine, through 690 kilometres of new transmission line.

The purpose of the Spill Contingency and Response Plan is to provide a course of action, which will be implemented to allow a prompt and orderly response to spills and emergencies, which may occur during construction and operation activities.

All spills and emergencies are to be reported to the NWT Spill Report Line: (867) 920-8130.

All spills and emergencies require immediate action, with priorities of:

1. Protecting lives and preventing injury;
2. Protecting the environment; and
3. Protecting property.

The Project Supervisor will report the incident to NWT Spill Reporting Line within 12 hours of occurrence.

2. SPILL AND EMERGENCY RESPONSE DUTIES

Any **employee** discovering an incident shall immediately conduct an initial assessment as to the magnitude of the problem and whether he/she can remedy or alleviate the situation prior to seeking additional help or notifying his/her supervisor. The assessment will include the requirements for personnel, equipment, materials, and tools to manage the incident. The urgency will depend on the nature of the incident.

The situation shall be brought to the attention of the Site Supervisor as soon as practicable after discovery. The **Site Supervisor** shall immediately:

- Initiate material containment if appropriate and evacuate personnel from the area as necessary;
- Request assistance, as deemed appropriate to meet the situation;
- Maintain authority over the personnel and the incident scene;
- Obtain all of the relevant information necessary (e.g., MSDS's), take initial action to remedy or alleviate the situation;
- Develop the overall plan of action for containment and clean up of the specific incident;

- Ensure that the assigned responsibilities are carried out and that coordination exists between supervisory team members; and
- Report the incident to the Project Supervisor or Environmental Monitor.

The **Environmental Monitor** shall:

- Assist the Site Supervisor;
- Provide expertise regarding best management for protection of the environment;
- Document relevant environmental conditions i.e. weather, precipitation, winds etc;
- If applicable, conduct relevant environmental monitoring such as:
 - water quality sampling upstream and downstream;
 - soil sampling of spill site and control site; and
- Prepare a report of all spills within 2 weeks of occurrence, including contacts, remedies, and monitoring.

The **Project Supervisor** or his/her designate shall:

- Contact the NWT Spill Reporting Line within 12 hours of occurrence (867 920-8130) and provide all necessary information;
- Assist in obtaining any additional resource not available on-site for response and clean-up;
- Liaise with the Project Management and other agencies regarding containment and clean-up progress;
- If required, co-ordinate corrective actions with the appropriate provincial and federal agencies;
- Prepare the chronological logs of all pertinent information for use in reporting and to facilitate a post-response assessment;
- Prepare a report including nature of the incident, response, human and environmental protection, clean-up, and prevention plan.

3. FUELS ON SITE

Fuel Type	# of Containers	Total Volume	Capacity of Containers (each)	Location
Diesel	4	40,000 L	10,000 L Enviro Tank	2 at Twin Gorges and 2 at Nonacho staging areas
Diesel	65	13,325 L	205 L Drums	5 at each of the 12 Staging areas plus Twin Gorges
Aviation Fuel	13	65,000 L	5000 L Enviro Tank	1 at each of the 12 staging areas plus Twin Gorges
Aviation Fuel	48	8200 L	205 L Drums	4 at each of the 12 Staging areas plus Twin Gorges to supplement Tanks
Gasoline	48	10,660 L	205 L Drums	4 at each of the 12 Staging areas plus Twin Gorges
Propane	26	26,000 lbs	100 lb bottles	2 at each of the 12 Staging areas plus Twin Gorges

4. SPILL RESPONSE TRAINING

Environmental training on material management, spill response and emergency procedures, and other environmental protection measures will be provided to personnel prior to commencement of construction activities, and periodically during routine safety meetings.

5. SPILL AND EMERGENCY RESPONSE EQUIPMENT

Spill and emergency response equipment will be maintained at all locations of fuel storage and handling. Spill kits will be present when activities of moderate or high risk of fuel spillage occur adjacent to a watercourse. The spill kit will include, at a minimum, absorbent pads, floating boom (if appropriate), plastic bags for disposal of used materials, and personal safety equipment. Used spill abatement and clean-up material will be promptly replaced.

All earthmoving equipment will be equipped with absorbent pads to accommodate spills from that piece of equipment.

6. INCIDENTS

The following procedures provide guidance in the event of a spill of fuel, oils, lubricants or other harmful substances.

Spill Response Steps	
1.	ENSURE SAFETY
2.	STOP THE FLOW (when possible)
3.	SECURE THE AREA
4.	CONTAIN THE SPILL
5.	NOTIFY/REPORT NWT 24 Hour Spill Report Line: (867) 920-8130
6.	CLEAN-UP
(Circumstances may dictate another sequence of events)	

Ensure Safety

- Ensure Personal, Public and Environmental Safety
- Wear appropriate Personal Protective Equipment (PPE)
- Never rush in, always determine the product spilled before taking action
- Warn people in immediate vicinity
- Ensure no ignition sources if spill is of a flammable material

Stop the Flow (When Possible)

- Act quickly to reduce the risk of environmental impacts
- Close valves, shut off pumps or plug holes/leaks, set containers upright
- Stop the flow of the spill at its source

Secure the Area

- Limit access to spill area
- Prevent unauthorized entry onto site

Contain The Spill

- Block off and protect drains and culverts
- Prevent spilled material from entering drainage structures (ditches, culverts, drains)
- Use spill sorbent material to contain spill
- If necessary, use a dike, berm or any other method to prevent any discharge off site
- Make every effort to minimize contamination
- Contain as close to the source as possible

Notify/Report

- Notify appropriate Site Supervisor or alternate of incident (provide spill details)
- When necessary the first external call should be made to (see spill reporting requirements):
- NWT 24 Hour Spill Report Line: (867) 920-8130
- Provide necessary spill details to other external agencies (see spill reporting requirements)

7. GENERAL MATERIAL SPILL RESPONSE GUIDELINES

7.1 Diesel Fuel Spill Guidelines

7.1.1 Spill in a Dry Area

- Contain spill using booms designed for this purpose; alternatively other available material that will not cause further damage.
- Clean up and recover material with protective gear. Material recovery may utilize pumps or absorbents as appropriate for type of spill.
- Detoxify area.
- Store/transport recovered material and review the mode of disposal.

7.1.2 Spill in an Area Wet from Rain

- If solid, cover material with plastic; if liquid contain the spill using booms or other material designed for this purpose.
- Isolate drainage without increasing environmental impact.
- Notify downstream water users if appropriate.
- Clean up and recover material using protective gear. Material recovery may utilize pumps or sorbets as appropriate for type of spill.
- Detoxify the area.
- Store/transport recovered material and review the mode of disposal.

7.1.3 Spill into River, Stream or Creek

- Notify downstream water users.
- Contain the spill using booms or other material designed for this purpose.
- Recover the material, if possible, using protective gear.
- Implement environmental monitoring of downstream waters as soon as possible after arriving at the scene.

7.1.4 Spills on Snow

- For small spills, collect spilled fuel-snow mixture using a shovel where applicable.
- If the spill is more extensive spill, respond by:
 - Constructing a trench or ditch to intercept or contain the fuel products on snow where feasible
 - Compact the snow around the outside perimeter of the spill area.
 - Construct a dike or dam out of snow, either with shovels or with heavy equipment, where available.
 - Locate the low point of the spill area and clear channels in the snow, directed away from waterways to allow non absorbed material to flow to the low point.
 - Transport contaminated material to approved disposal site. Equipment used will depend on the magnitude and the location of the spill.

7.1.5 Spills on Ice

- Spills on ice are handled in a similar manner to those on snow. Ice presents the added danger of immediate access to water.
- Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.
- Construct a compacted- snow berm around the edge of the spill area.
- Although hard ice will prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the ice (gravel, frozen absorbent pads) must be scraped from the ice and disposed of in an appropriate manner.

7.2 Other Materials

7.2.1 Sedimentation & Erosion

Sedimentation into waterbodies from construction activities will be prevented through application of the Sediment and Erosion Control Management Plan, which will include established control practices. The introduction of sediment to waterbodies may cause negative impacts to fish populations and aquatic habitats.

Should sediment bypass control measures the following actions will be initiated:

- Immediately cease the activity causing the sedimentation
- If applicable, re-establish sediment control measures to reduce the contribution to the environment
- Notify the Project Supervisor or Environmental Monitor
- Sample water quality

7.2.2 Gasoline and Aviation Fuel

Gasoline may be stored on site for use in light vehicles. A list of the hazards associated with gasoline, spill response, fire response and recovery methods are listed below. **Aviation fuel** spills should be treated as gasoline spills. Gasoline is:

- Highly flammable;
- Explosive when in vapour form;
- Easily ignited by flame or spark;
- Lighter than water (floats on water);
- Toxic to humans by ingestion and by aspiration; and
- Toxic to fish and other aquatic organisms.

The initial response to a gasoline spill will be:

- Stop the flow at the source if possible;
- Eliminate all possible sources of ignition (e.g. ,extinguish cigarettes, shut off motors).
- Evacuate danger area;
- Carefully consider the hazards and merits of trying to contain the spill. Contain only if it is safe to do so and obvious benefit of containment is apparent (e.g., contain if flowing towards a creek). Otherwise leave gasoline to spread and evaporate; and

In the event of a gasoline fire, the response will be:

- Use CO₂, dry chemical, foam, or water spray (fog);
- Use jet streams to wash away burning gasoline;
- Diversion of gasoline to an open area and let it burn off under control;
- Use water to cool tank surfaces; and
- Being aware of re-ignition if the fire is put out before all gasoline is consumed.

Gasoline will be recovered in the following manner:

- Unburned gasoline can be soaked up by sand and peat moss, or by commercial sorbents (e.g., Graboil);
- If necessary contaminated soil should be excavated and placed in a biocell (impermeable container); and
- Gasoline entering the ground can be recovered by digging sumps or trenches and pumping from below the water table.

Gasoline can be disposed of by evaporation or incineration under controlled circumstances.

7.2.3 Other Fuels & Petroleum Products

Fuel and petroleum product spills will be contained using local earth materials and/ or sandbags. Spill clean up equipment specifically designed for petroleum products is located at camp and in the Maintenance Shop.

Dangers associated with fuel oil spills include:

- Risks associated flammability;
- Mildly toxic by ingestion, highly toxic if aspirated;
- Moderately toxic to fish and other aquatic organisms;
- Harmful to waterfowl; and
- Floats on water.

Spills or leaks of all light and medium oils, including fuel oil at storage facilities, will be responded to by following these steps:

- Identify the source of the leak or spill;
- Stop flow if possible;
- Eliminate open flame ignition processes; and
- Contain the spill;

In the event of a tank rupture, the containment berm is designed to contain the full capacity of the tank. This will allow the oil to be contained and pumped out of the area into salvage tanks. Contaminated soil from the site will be excavated, and transported to a treatment facility or treated on site through technology such as bioremediation or air sparging.

Spilled diesel fuel can be recovered by commercial sorbents or by sand, straw, or peat moss. If necessary, contaminated soil will be excavated. Diesel fuel saturated soil can be recovered by digging sumps or trenches and pumping from below the water table.

Fuel spills on land will be responded to by the following procedures:

Construct a berm of absorbent booms or other material that will not increase impacts to the environment downslope of the running or seeping fuel;

- Plastic tarps may be placed at the base of the berm to allow the fuel to pool on the plastic for easy capture with absorbent pads;
- Pads may be squeezed into empty drums and re-used;
- Larger pools will be pumped back into drums or empty storage tanks;
- Special care will be taken to prevent the fuel from entering a body of water where it will have greater environmental impact;
- Stains on rock will be soaked up with absorbent sheeting which will be placed in empty drums for disposal; and
- Contaminated soil and vegetation may have to be removed and reclaimed.

Fire response methods for fuel oil include:

- CO₂, dry chemical, foam, or water spray (fog);
- Water to cool tank surfaces;
- Diversion of the diesel fuel to an open area to let it burn off under control; and
- Awareness of re-ignition if the fire is put out before all diesel fuel is consumed.

Fuel spills on water must be contained immediately to restrict the extent of the floating fuel. The methods which may be used to contain fuel oil include:

- Booms deployed to contain the spill area, (although the effectiveness of the booms can be limited by wind, waves, and other factors);

- Absorbent pads used to capture small spills on water. Absorbent booms can be drawn slowly in to encircle spilled fuel and absorb it on hydrophobic pads (i.e. absorb hydrocarbons and repel water);
- A skimmer to recover oil contained by the boom and then pump the recovered fuel through hoses to empty fuel drums; and
- Culverts to permit water flow while capturing and collecting fuel by using a board to control the water level. The culvert can be surrounded with absorbent material to capture the fuel on the water surface.

Fuel spills on snow will be contained by the following methods:

- Snow may be used as a natural absorbent to collect spilled fuel;
- Snow-fuel mixture will be scraped up and stored in a lined area or in drums for future disposal; and
- Channels may be cleared in the snow and the fuel allowed to flow into a low area where it may be collected for transport to an approved disposal or recovery site.

7.2.4 Ammonium Nitrate Fuel Oil (ANFO)

ANFO is in the form of small porous ammonium nitrate pellets coated with fuel oil. The pellets are transported (mainly) dry and are either ignited using 'stick' dynamite or mixed with fuel oil prior to being loaded into blast holes. ANFO is moderately toxic to aquatic organisms and if improperly stored, may explode under high pressures or temperatures.

Concerns associated with ammonium nitrate include the following:

- Strong oxidizing agent, and highly reactive with other substances;
- Moderately toxic to people;
- Moderately toxic to fish and other aquatic organisms;
- Very soluble in water;
- Supports combustion readily and may detonate if heated under confinement or if subjected to strong shocks. It becomes more sensitive if mixed with or contaminated by organic matters; and
- When burned, produces toxic oxides of nitrogen.

In the event of an ANFO spill all possible sources of ignition will be eliminated. Every attempt will be made to prevent the spill from coming in contact with water within which the pellets will dissolve. In the event of a fire involving large quantities of ANFO, no attempt will be made to fight the fire and the area will be immediately evacuated. Fire involving small quantities of ANFO may be extinguished with water. Fires should be approached from the upwind side and only when wearing protective clothing and breathing apparatus.

ANFO will be recovered by being shovelled into containers to minimize the quantity of ammonium nitrate being dissolved. Sorbents such as peat moss or Graboil can be used to recover oil emanating from the spill. The sorbents will then be buried at an approved site or incinerated. The recovered ANFO will be either reused (if not water-saturated) or disposed of by detonation of incineration under knowledgeable supervision.

TALTSOŦ HYDROELECTRIC EXPANSION PROJECT

Proposed Winter Road Co-ordinates

May 2007

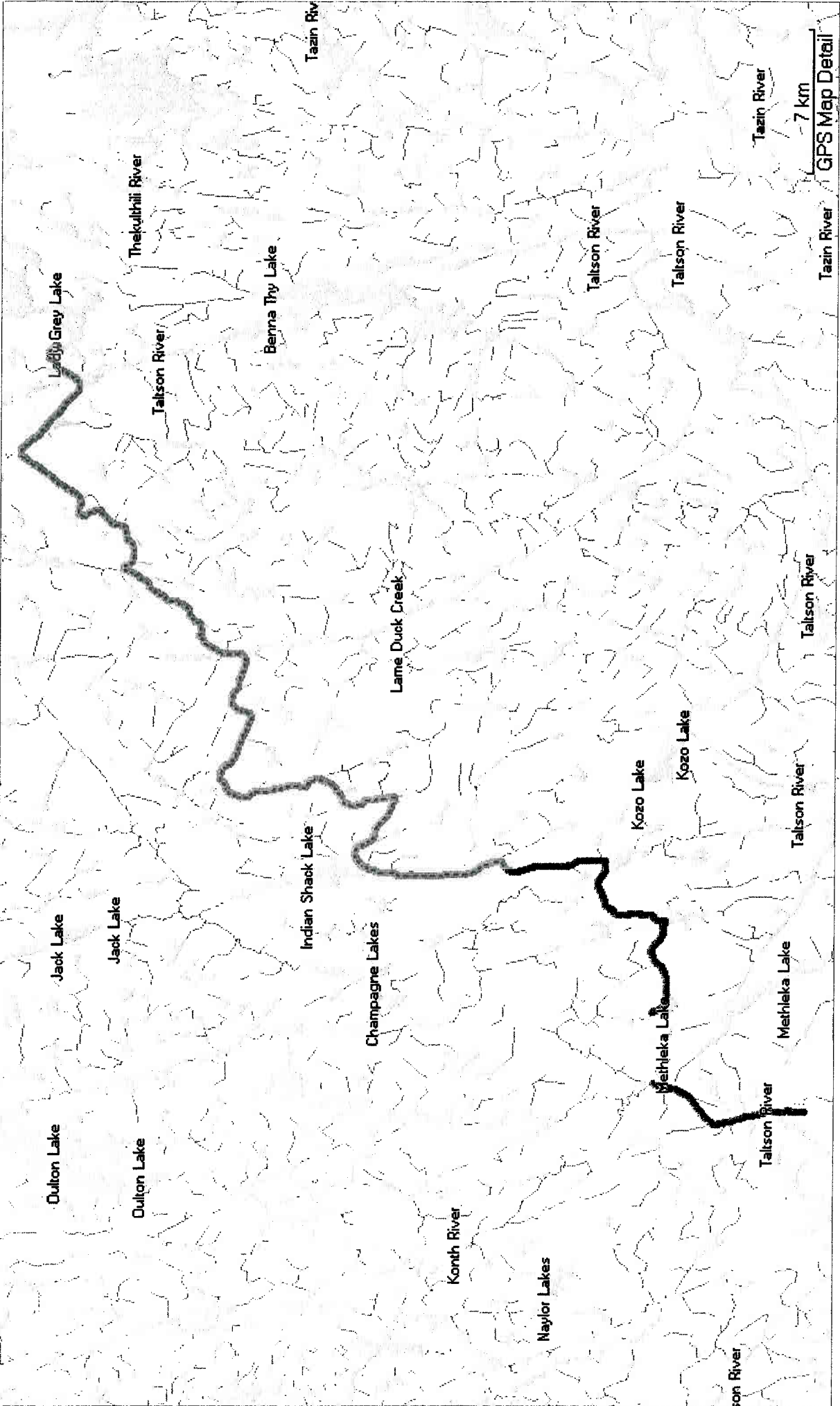
RTL Robinson Enterprises Ltd.
Taltson Expansion
September 21 & 22 Winter Road Recon
Provided by S.Langlois
Grid: Lat/Long hddd.ddddd°
Datum: WGS 84

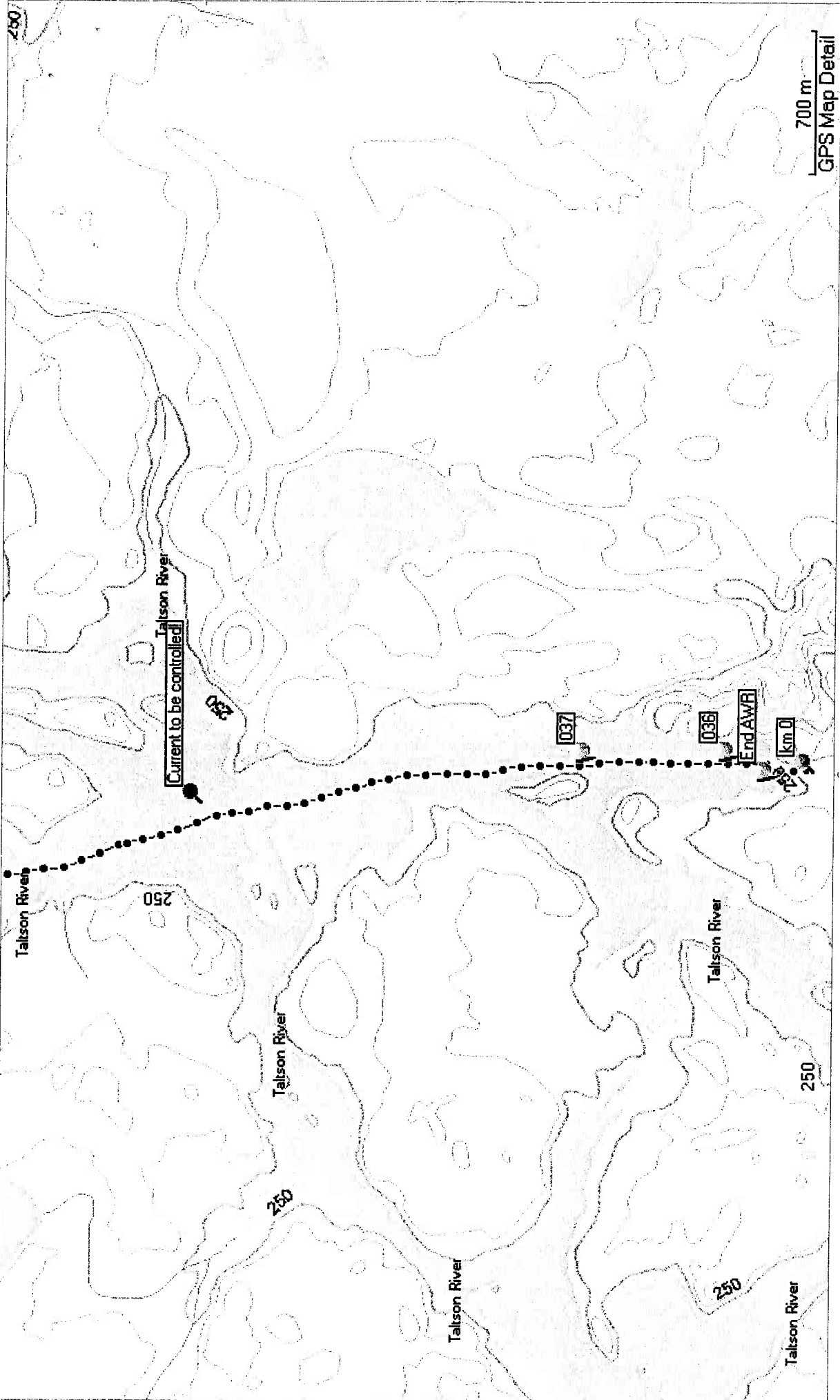
Name	Comment	Position	Symbol & Name
7	08-MAY-06 1:04:15PM	N61.14503 W110.46244	Symbol & Name
8	08-MAY-06 1:04:55PM	N61.16195 W110.45039	Symbol & Name
9	08-MAY-06 1:05:57PM	N61.18948 W110.43465	Symbol & Name
10	08-MAY-06 1:05:59PM	N61.19031 W110.43442	Symbol & Name
11	08-MAY-06 1:06:53PM	N61.21391 W110.43045	Symbol & Name
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16	21-SEP-06 3:20:04PM	N60.74154 W110.77798	Symbol & Name
17	21-SEP-06 3:24:34PM	N60.70683 W110.85835	Symbol & Name
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19	21-SEP-06 3:38:28PM	N60.71227 W110.85814	Symbol & Name
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24	21-SEP-06 3:40:29PM	N60.70710 W110.86970	Symbol & Name
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27	21-SEP-06 3:41:14PM	N60.70269 W110.87530	Symbol & Name
28	21-SEP-06 3:42:45PM	N60.70288 W110.90036	Symbol & Name
29	21-SEP-06 3:44:55PM	N60.68943 W110.93449	Symbol & Name
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31	21-SEP-06 3:45:25PM	N60.68730 W110.94458	Symbol & Name
32	21-SEP-06 3:45:57PM	N60.69092 W110.95924	Symbol & Name
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34	21-SEP-06 4:03:29PM	N60.62281 W111.07683	Symbol & Name
35	21-SEP-06 4:27:58PM	N60.50569 W111.13475	Symbol & Name
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39	21-SEP-06 4:41:03PM	N60.48876 W111.29012	Symbol & Name
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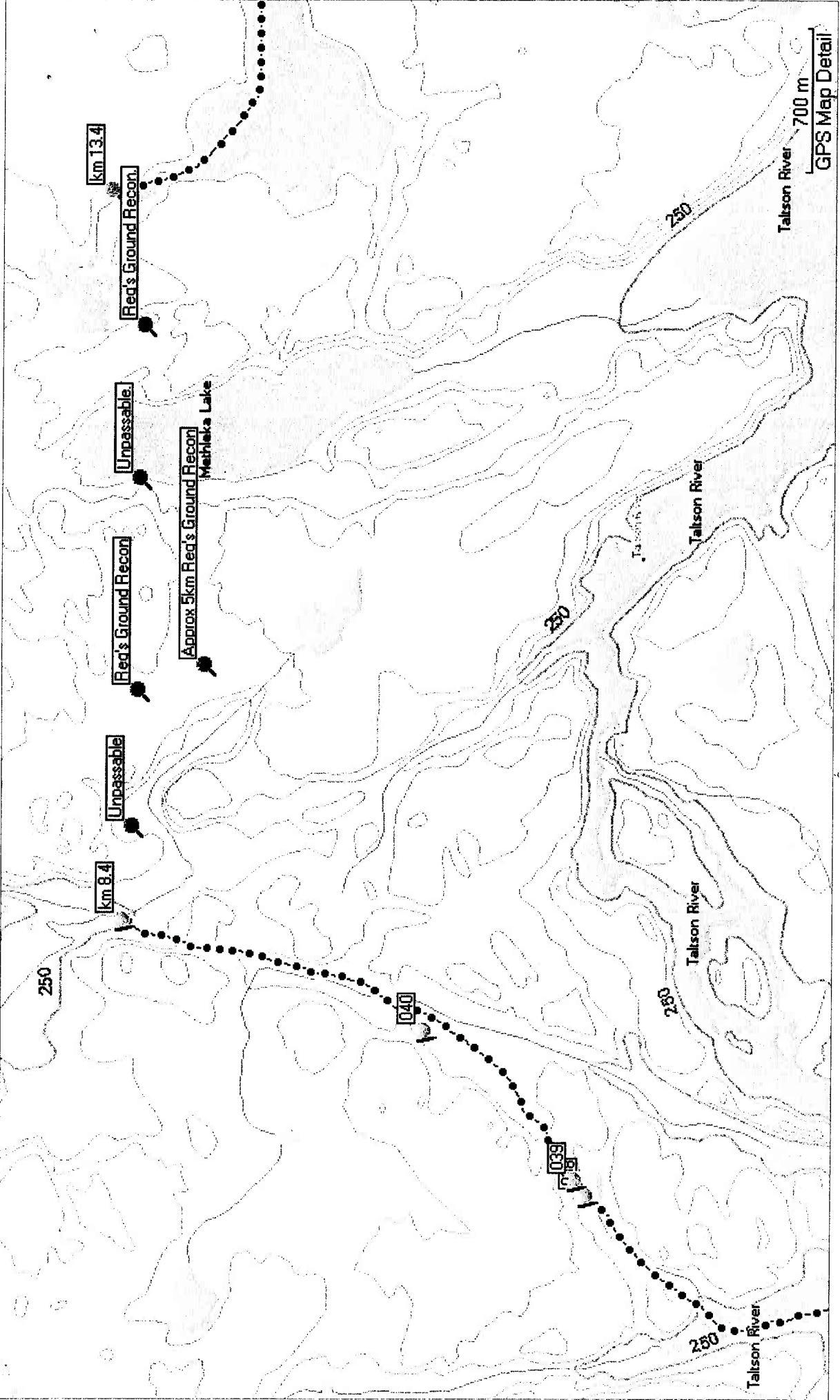
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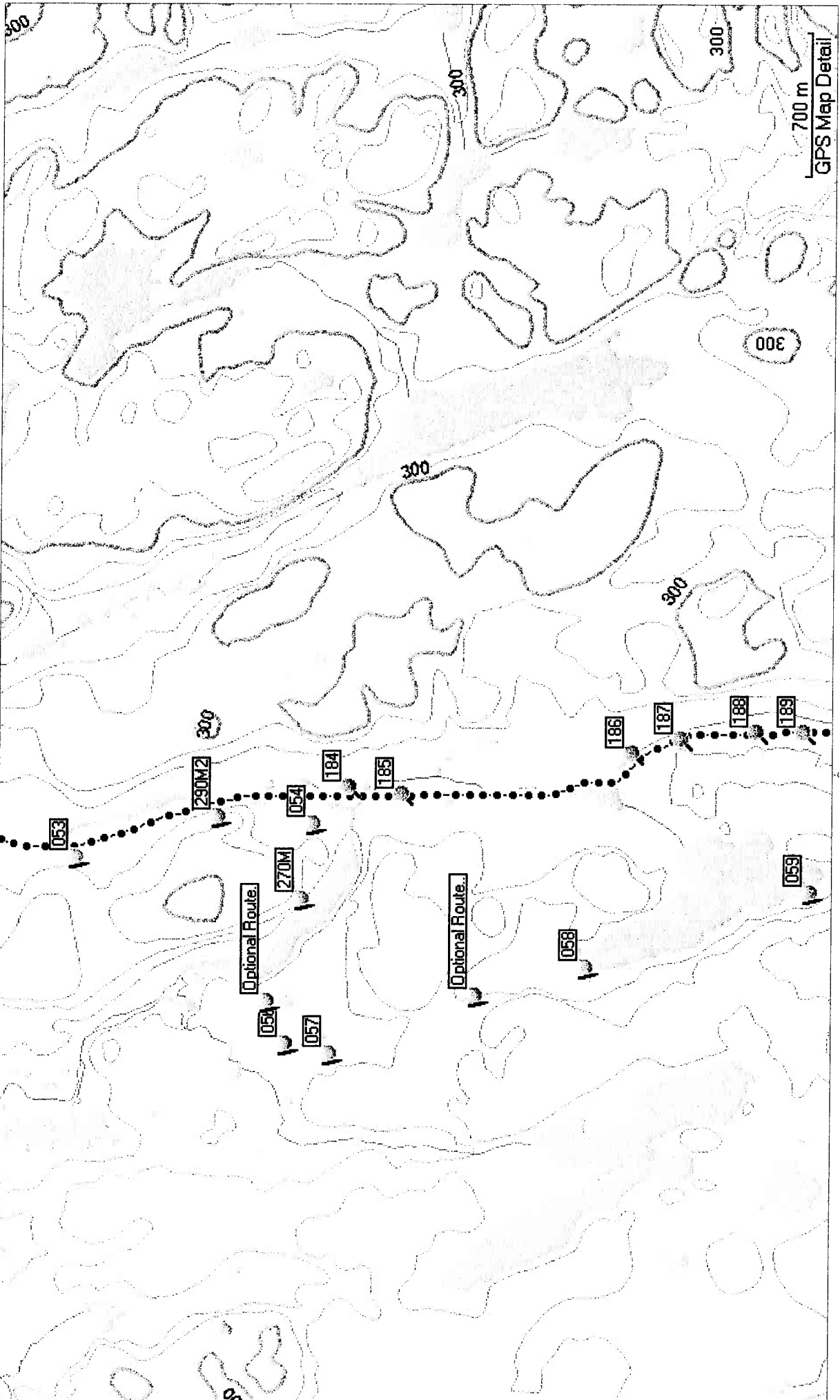
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Approx 5km Req's Ground Recon		N60.50526 W111.24369	Symbol & Name 9/25/2006 11:22:10 AM
Bottleneck	21-SEP-06 3:31:53PM	N60.69654 W110.86901	Symbol & Name
CABIN	22-SEP-06 11:49:34AM	N60.63480 W111.07799	Symbol & Name
CAT	22-SEP-06 3:01:03PM	N60.77612 W110.61363	Symbol & Name
Cat Trail	22-SEP-06 3:01:45PM	N60.77363 W110.60578	Symbol & Name
Cat Trail.	22-SEP-06 3:00:34PM	N60.77382 W110.61911	Symbol & Name
Current to be controlled!	Taltson River	N60.46913 W111.29403	Symbol & Name 9/25/2006 11:23:12 AM
End AWR	21-SEP-06 4:34:07PM	N60.44370 W111.29183	Symbol & Name
good/possible	LAKE	N60.72915 W110.82483	Symbol & Name
Ind Shck	INDIAN SHACK LAKE	N60.64018 W111.06592	Symbol & Name
Indian Shack Lake	INDIAN SHACK LAKE	N60.63426 W111.07325	Symbol & Name
km 0	Road	N60.44209 W111.29110	Symbol & Name 9/25/2006 11:12:59 AM
km 13.4	22-SEP-06 3:56:54PM	N60.50950 W111.20136	Symbol & Name
Km 76	Lady Grey Lake	N60.77258 W110.60522	Symbol & Name 9/25/2006 11:18:33 AM
km 8.4	21-SEP-06 4:53:13PM	N60.50886 W111.26676	Symbol & Name
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LAKE1	LAKE	N60.68079 W111.00302	Symbol & Name
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LAKE12	LAKE	N60.74638 W110.76460	Symbol & Name
LAKE13	LAKE	N60.72768 W110.84202	Symbol & Name
LAKE14	LAKE	N60.69389 W110.92122	Symbol & Name
LAKE2	LAKE	N60.66262 W111.00095	Symbol & Name
LAKE3	LAKE	N60.65514 W110.99439	Symbol & Name
LAKE4	LAKE	N60.61934 W111.08038	Symbol & Name
LAKE5	LAKE	N60.58305 W111.07040	Symbol & Name
LAKE6	LAKE	N60.51456 W111.11466	Symbol & Name
LAKE7	LAKE	N60.50988 W111.11493	Symbol & Name
LAKE8	LAKE	N60.50858 W111.11803	Symbol & Name
LAKE9	LAKE	N60.77388 W110.62557	Symbol & Name
Narrow Channel	21-SEP-06 3:07:19PM	N60.76517 W110.64981	Symbol & Name
NONACHOGAS	08-MAY-06 1:44:04PM	N61.73759 W109.61639	Symbol & Name
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Optional Route.		N60.56005 W111.09031	Symbol & Name
Optional Route..	280 M	N60.55082 W111.08978	Symbol & Name
Optional Route...	21-SEP-06 3:39:17PM	N60.71224 W110.86496	Symbol & Name
Optional Start Point	LADY GREY LAKE	N60.79681 W110.57832	Symbol & Name

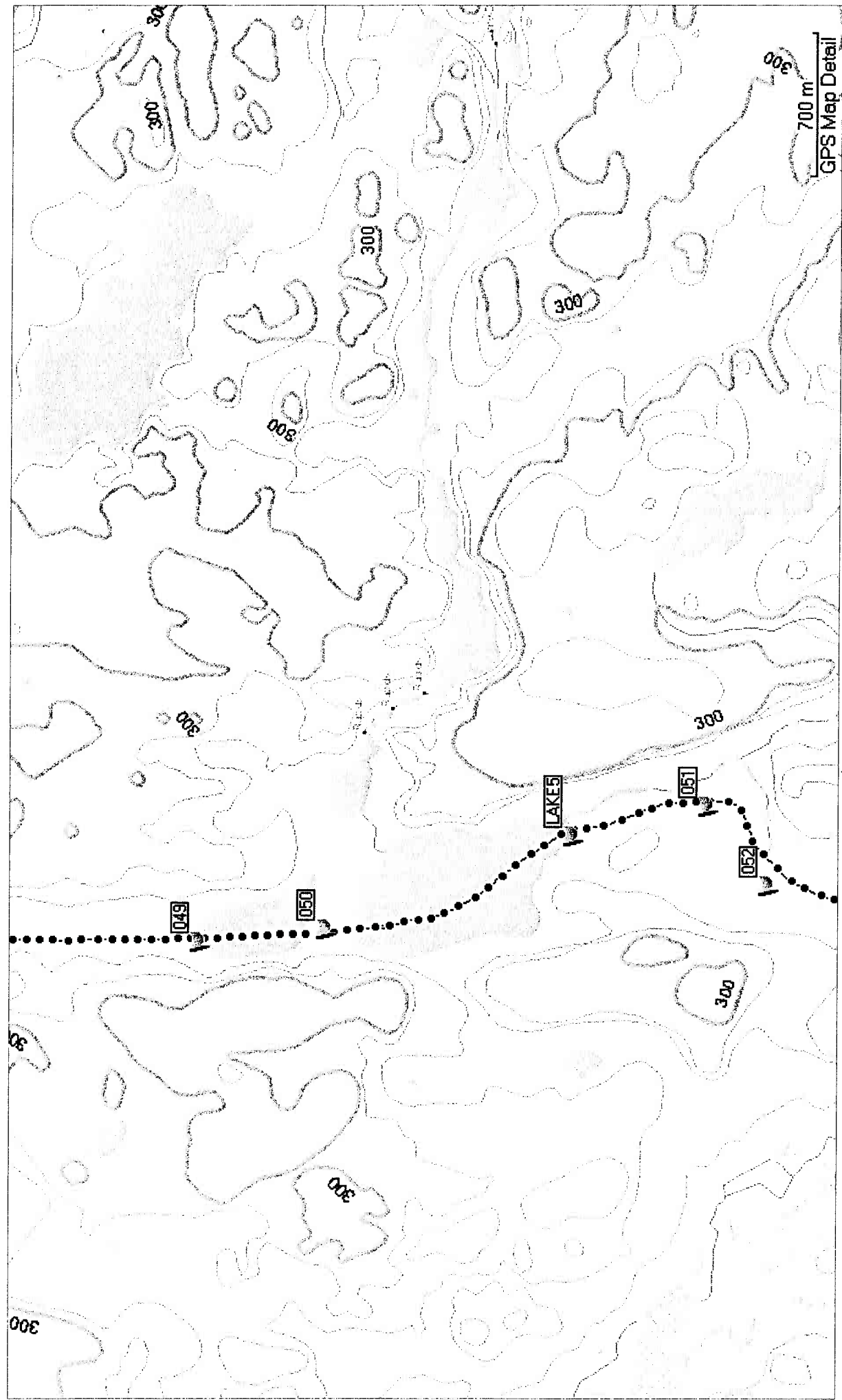
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Questionable	21-SEP-06 4:14:22PM	N60.52085 W111.11485	Symbol & Name
Req's Ground Recon		N60.50828 W111.24599	Symbol & Name 9/25/2006 11:20:56 AM
Req's Ground Recon.	280 m	N60.50802 W111.21336	Symbol & Name 9/25/2006 11:21:37 AM
ROCK	21-SEP-06 4:03:46PM	N60.62180 W111.08036	Symbol & Name
Sparks Lake Air Strip	Stream	N61.13000 W109.42000	Symbol & Name 9/25/2006 11:43:02 AM
STREAM	STREAM	N60.68784 W111.00985	Symbol & Name
STREAM1	STREAM	N60.67021 W111.00022	Symbol & Name
STREAM10	STREAM	N60.71329 W110.84117	Symbol & Name
STREAM11	STREAM	N60.69081 W110.90362	Symbol & Name
STREAM2	STREAM	N60.62499 W111.01029	Symbol & Name
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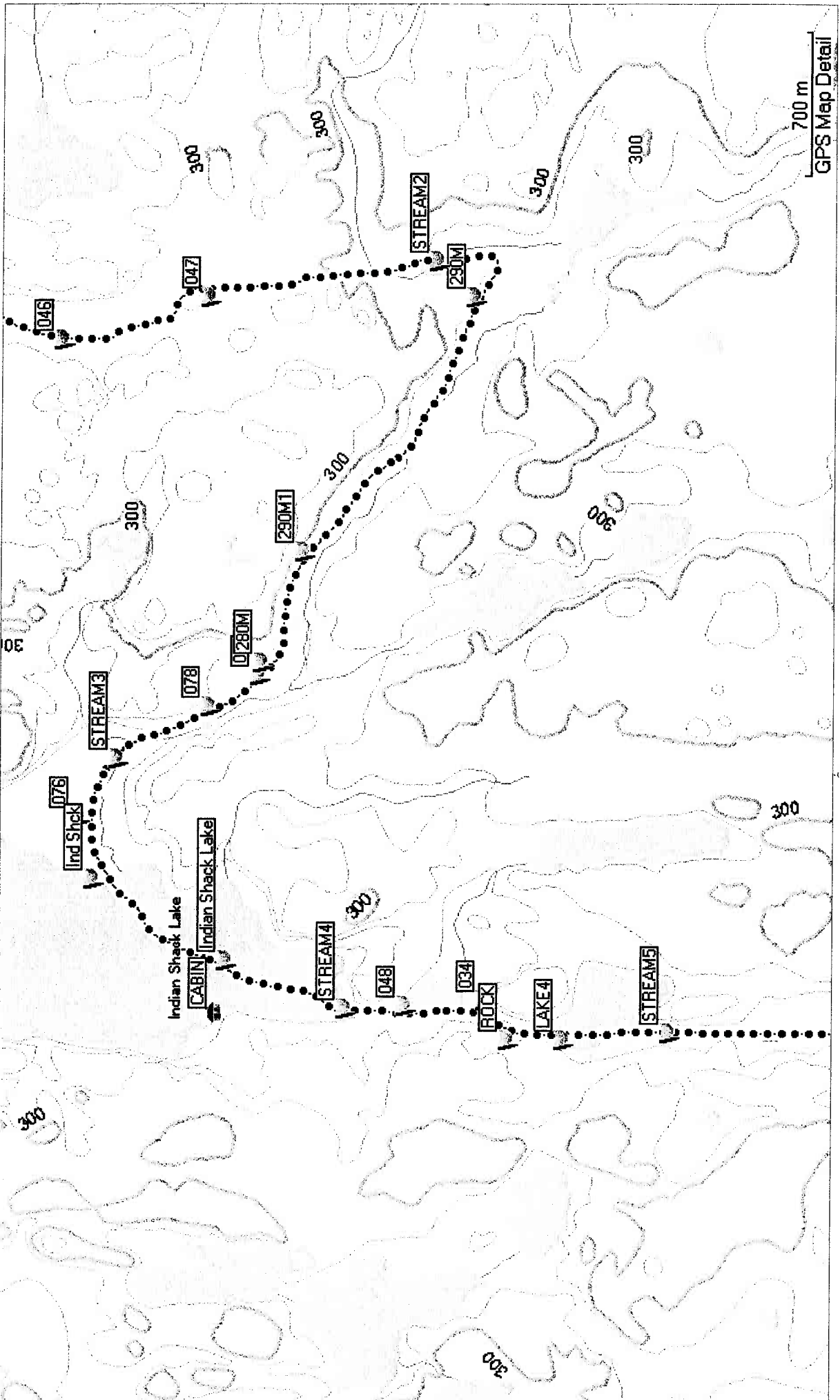


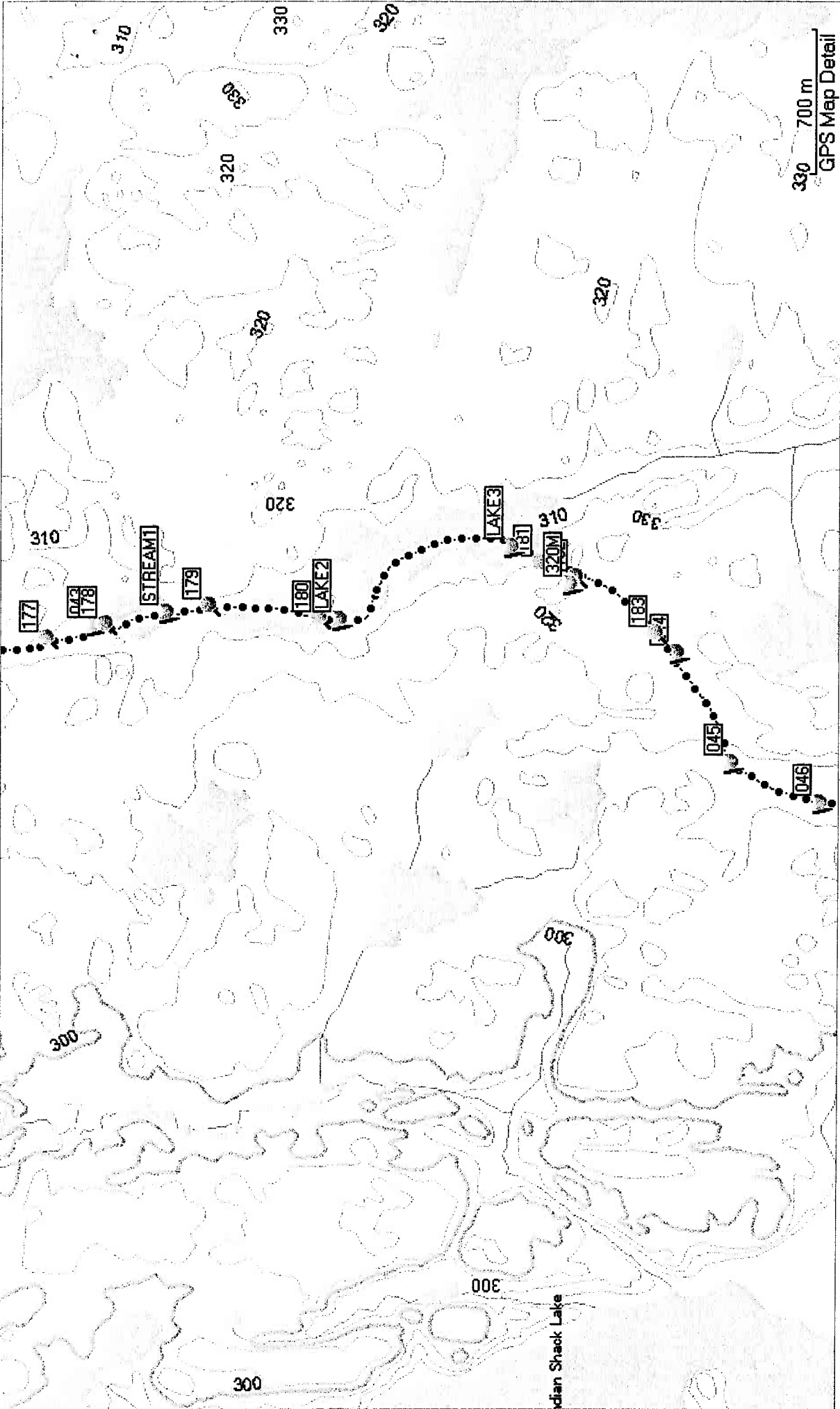


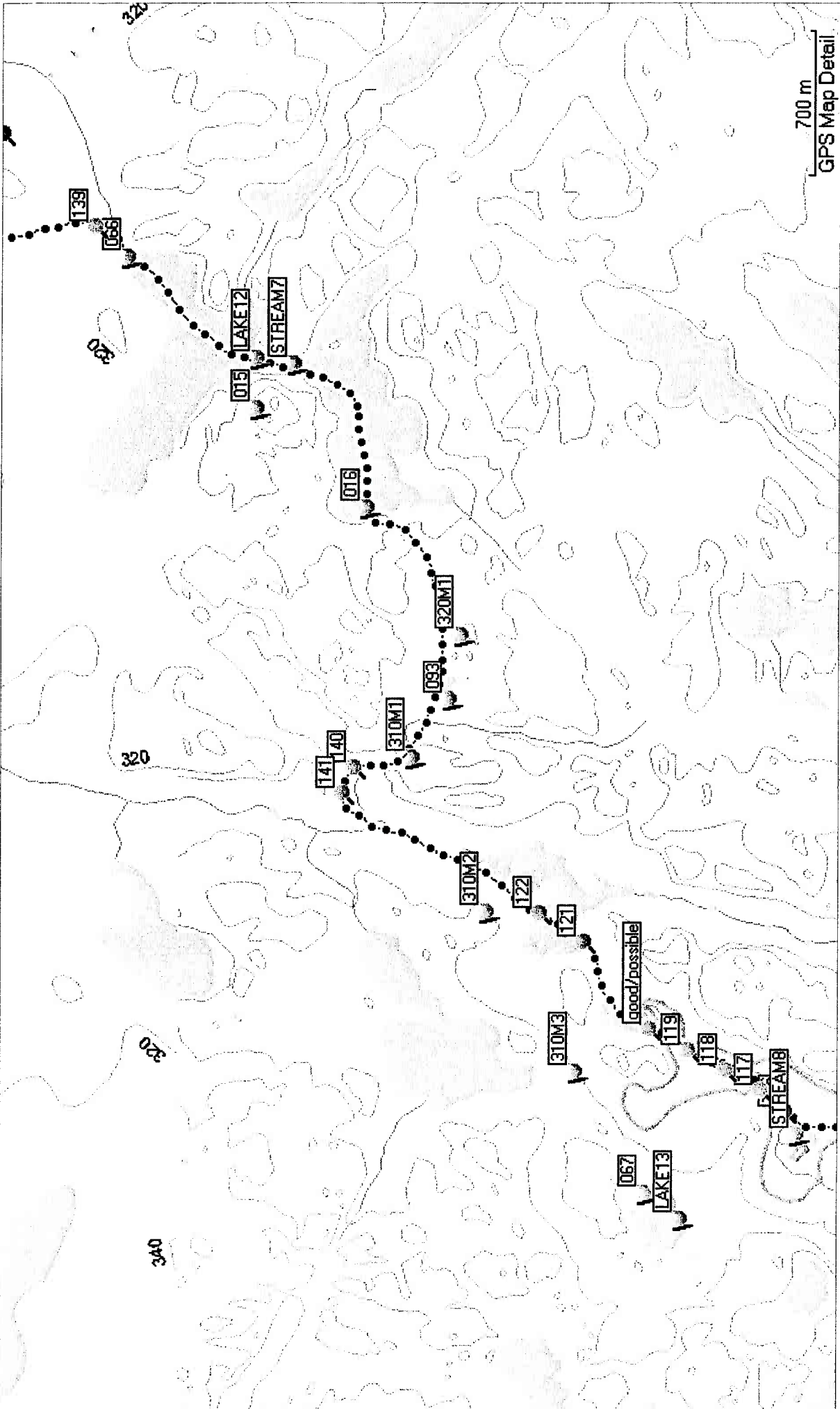


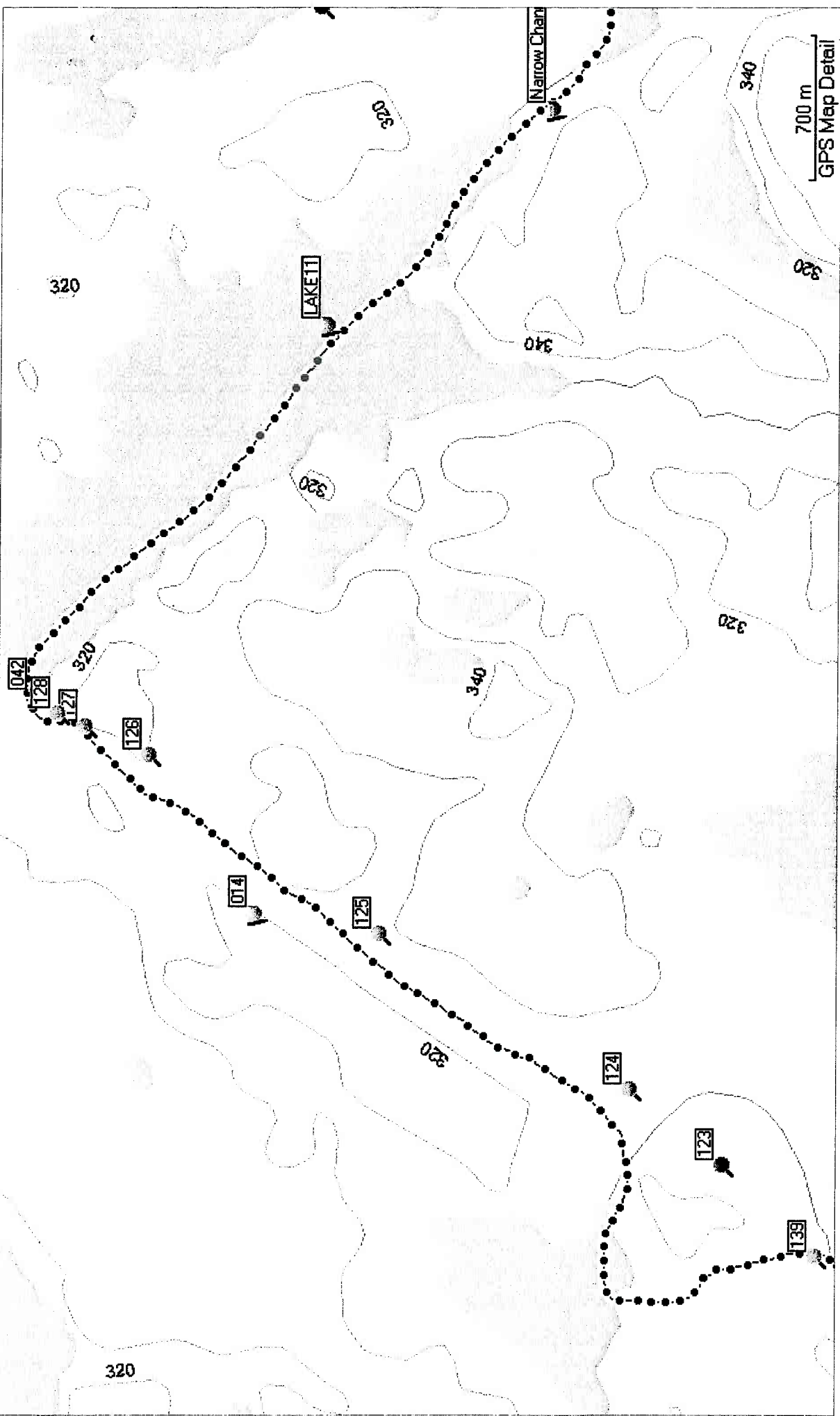


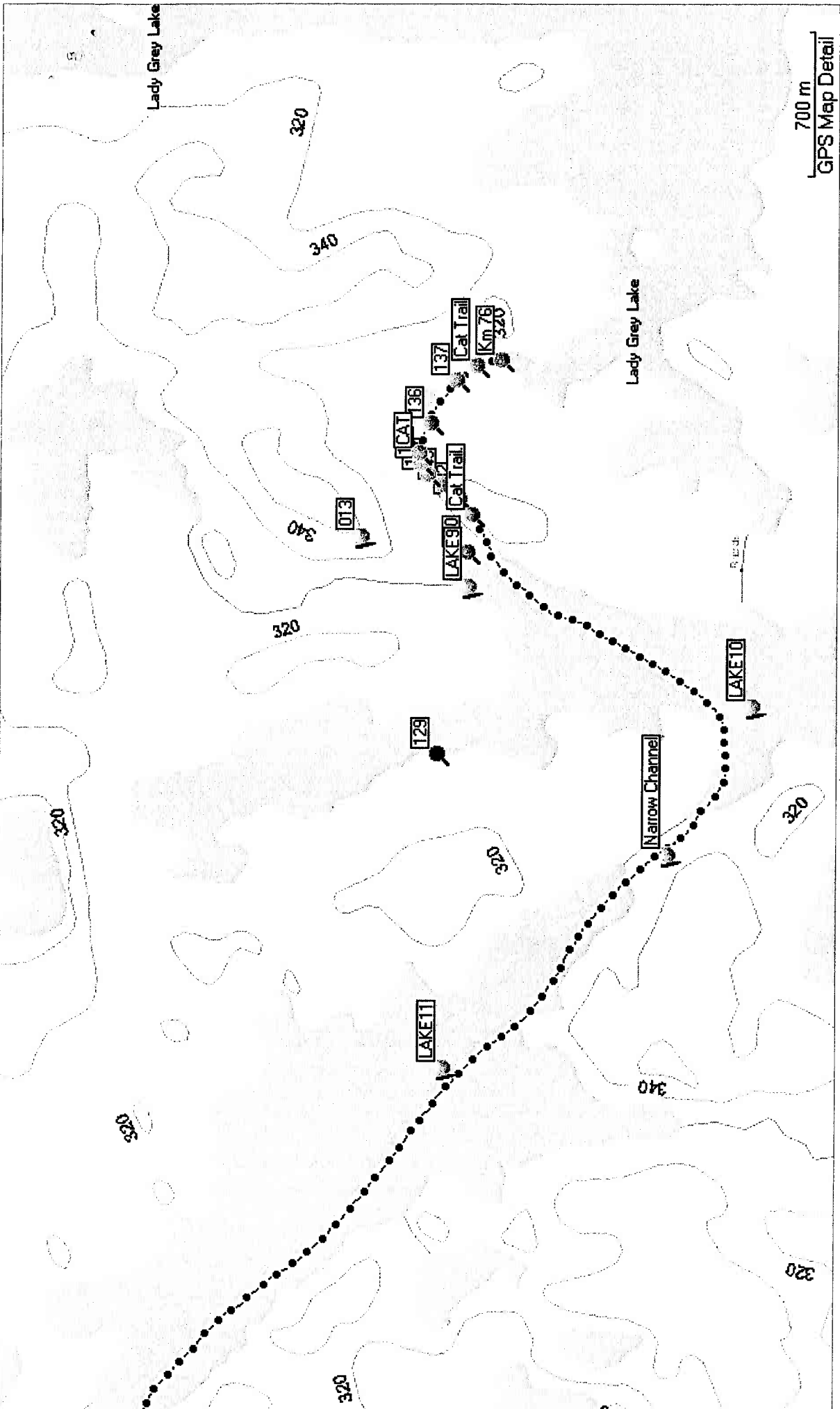


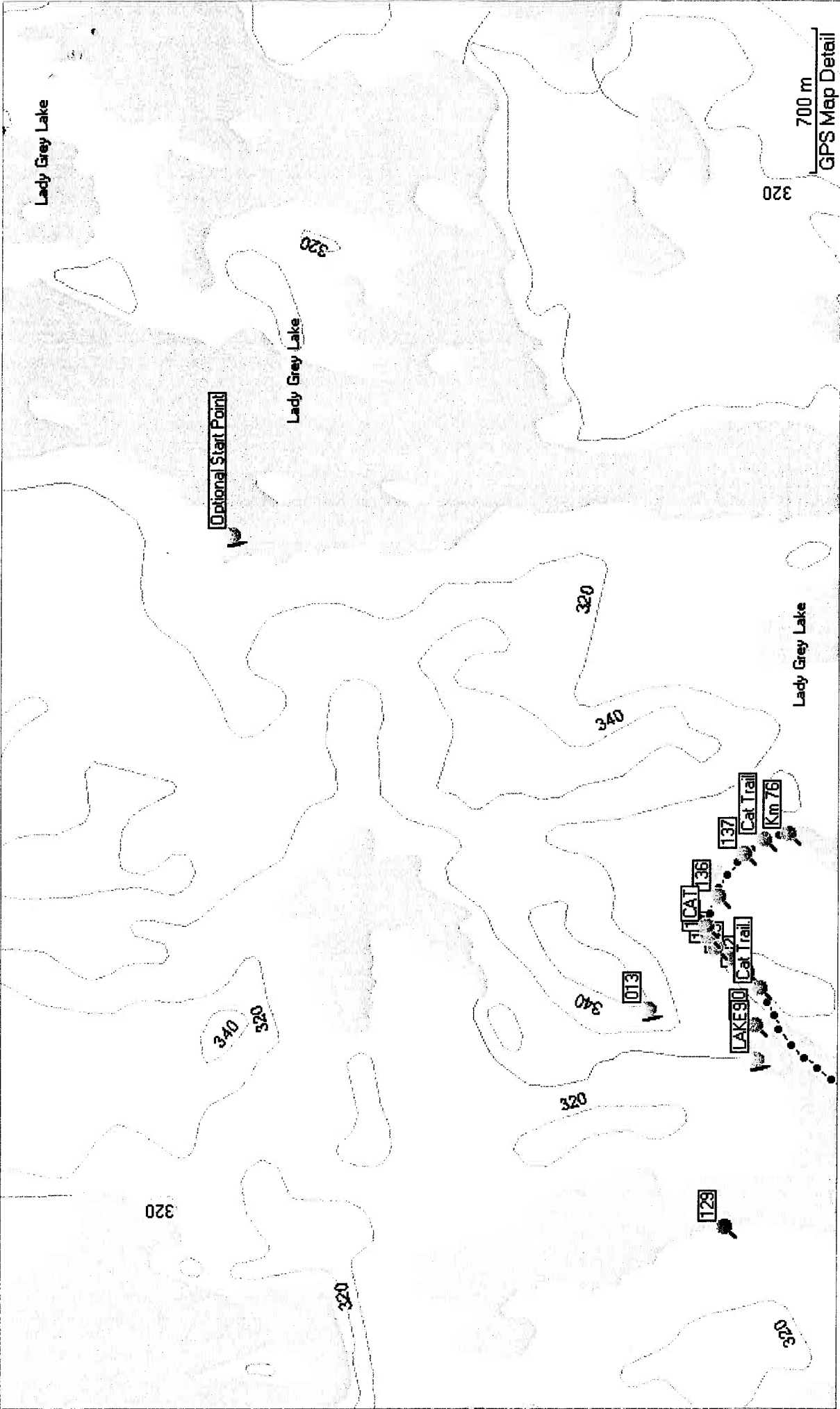












TALTSOY HYDROELECTRIC EXPANSION PROJECT

Transmission Line Point of Intersection (PI) UTM Coordinates

LOCKHART RIVER - GACHO KUE 161 KV TRANSMISSION LINE - COORDINATES

Point of Intersection Number	Northing	Easting	Length (m)	Chainage (km)
PI Lockhart River #13C	6,968,700	610,750		
PI Lockart River - Gacho Kue #1	6,991,500	598,800	25,740	26
PI Lockart River - Gacho Kue #2	7,019,000	600,000	27,530	53
PI Lockart River - Gacho Kue #3	7,035,400	591,600	18,430	72
PI Gacho Kue	7,035,375	590,000	1,600	73
TOTAL LENGTH 73 km				

GACHO KUE - DIAVIK 161 KV TRANSMISSION LINE - COORDINATES

Point of Intersection Number	Northing	Easting	Length (m)	Chainage (km)
PI Gacho Kue	7,035,375	590,000		
PI Gacho Kue - Diavik #0	7,037,750	591,200	2,660	3
PI Gacho Kue - Diavik #1	7,038,600	590,260	1,270	4
PI Gacho Kue - Diavik #2	7,053,800	583,500	16,640	21
PI Gacho Kue - Diavik #3	7,075,700	565,500	28,350	49
PI Gacho Kue - Diavik #4	7,087,800	557,600	14,450	63
PI Gacho Kue - Diavik #5	7,087,800	557,600	12,820	76
PI Gacho Kue - Diavik #6	7,099,600	552,600	16,710	93
PI Gacho Kue - Diavik #7	7,115,200	558,600	13,040	106
PI Gacho Kue - Diavik #8	7,125,000	550,000	24,000	130
PI Gacho Kue - Diavik #9	7,149,000	550,000	7,720	138
PI Gacho Kue - Diavik #10	7,156,400	552,200	9,620	147
PI Gacho Kue - Diavik #11	7,160,700	543,600	12,690	160
PI Gacho Kue - Diavik #12	7,159,200	531,000	4,290	164
PI Gacho Kue - Diavik #13	7,155,400	529,000	3,720	168
PI Diavik	7,153,500	532,200	2,530	171
TOTAL LENGTH 171 km				

EKATI - DIAVIK 69 KV TRANSMISSION LINE - COORDINATES

Point of Intersection Number	Northing	Easting	Length (m)	Chainage (km)
PI Ekati	7,177,900	513,300	7,730	
PI Ekati - Diavik #1	7,176,500	520,900	6,640	8
PI Ekati - Diavik #2	7,172,500	526,200	12,790	14
PI Ekati - Diavik #3	7,161,000	531,800	6,260	27
PI Ekati - Diavik #4	7,155,400	529,000	3,720	33
PI Ekati - Diavik #5	7,153,500	532,200	2,530	37
PI Diavik	7,151,000	532,600		40
TOTAL LENGTH 40 km				

GACHO KUE - SNAP LAKE 69 KV TRANSMISSION LINE - COORDINATES

Point of Intersection Number	Northing	Easting	Length (m)	Chainage (km)
PI Gacho Kue	7,035,375	590,000	2,660	
PI Gacho Kue - Snap Lake #0 (GK#0)	7,037,750	591,200	1,270	3
PI Gacho Kue - Snap Lake #1 (GK#1Rev)	7,038,600	590,260	2,420	4
PI Gacho Kue - Snap Lake #1A (GK#1A)	7,038,000	587,920	4,530	6
PI Gacho Kue - Snap Lake #2 (GK#2Rev)	7,036,830	583,540	7,950	11
PI Gacho Kue - Snap Lake #2A (GK#2A)	7,040,150	576,320	1,940	19
PI Gacho Kue - Snap Lake #2B (GK#2B)	7,041,380	574,825	3,020	21
PI Gacho Kue - Snap Lake #2C (GK#2C)	7,042,750	572,130	980	24
PI Gacho Kue - Snap Lake #2D (GK#2D)	7,043,330	571,340	3,070	25
PI Gacho Kue - Snap Lake #3 (GK#3)	7,044,200	568,400	24,100	28
PI Gacho Kue - Snap Lake #4 (GK#4)	7,049,100	544,800	10,970	52
PI Gacho Kue - Snap Lake #5 (GK#5)	7,045,600	534,400	3,940	63
PI Gacho Kue - Snap Lake #6 (GK#6)	7,043,600	531,000	6,430	67
PI Gacho Kue - Snap Lake #6A (GK#6A)	7,044,200	524,600	2,640	73
PI Gacho Kue - Snap Lake #6B (GK#6B)	7,042,600	522,500	11,510	76
PI Gacho Kue - Snap Lake #6C (GK#6C)	7,044,800	511,200	820	87
PI Gacho Kue - Snap Lake #6D (GK#6D)	7,045,600	511,000	2,690	88
PI Gacho Kue - Snap Lake #7 (GK#7)	7,047,500	509,100	2,900	91
PI Gacho Kue - Snap Lake #8 (GK#8)	7,049,600	507,100	2,310	94
PI Snap Lake Mine #24	7,051,800	506,400		96
TOTAL LENGTH 96 km				