TOWNSITE MINE # 76
(MINFILE # omitted from minfile)

1. LOCATION AND ACCESS

Site access from the Elsa Townsite is at the junction of Calumet Drive and Wernecke Road travel 6.2 km along Calumet Drive to the Townsite Portal. This road is two wheel-drive accessible. The Townsite mine is located at an approximate elevation of 1365m. UTM co ordinates for the site are 7,087,800m N 479,500m E.

2. SITE PHYSIOGRAPHY

The site is on a Northwest facing slope, dipping @ ~20% overlooking the McQuesten Valley. Above and below the site are areas of frost heaved Quartzite boulders. There are very minimal soils present. The site drains into Sandy Creek, although the drainage pattern is not very well developed.

The surrounding vegetation consists of well spaced, stunted black spruce, willows, and alder with a floor covering of mosses, indicative of a permafrost environment.

3. GEOLOGY AND MINERALIZATION

The site is situated in thick bedded quartzites and there are no indications of any mineralized surface outcrops(see section 5.2 re: waste dump).

4. SITE HISTORY

In 1972 a 350m adit was driven through thick bedded quartzites to intersect the faulted offsets of the Hector-Calumet vein system. From 1972 through 1975 16,846 tonnes of ore were produced from two vein systems.

5. MINE DEVELOPMENT

5.1 Mine Openings and Excavations

Adit

The portal is caved and totally blocked. There is no sign of any drainage from the adit. All rail and services appear to have been removed prior to the cave in. The estimated dimensions of the drift are 2m wide x 2.5m high. The adit is reported to be 350m in length with over 650m of crosscuts and drifts on the 50(·evel. The adit is inaccessible and the portal area constitutes a minor hazard of rock fall from the walls of the excavation.

Shafts

No raises were observed. The raise shown on the mine drawings is reported to have been back filled and sealed.

Open Pits

There are no open pits associated with this site.

Trenches

No trenches were observed at this site.

5.2 Waste Rock Disposal Areas

Underground Dump and Loadout Area

Comprised of development waste rock, vein material and the quartzite excavated to collar the portal. (~ 13,000 tonnes). The dump consists of barren quartzite, schist and quartz veining. It exhibits moderate limonite staining (Oct. 1 F05-P09). There is a small kill zone directly below the dump (~30 m down slope x ~10 m Wide), which does not appear to be regenerating vegetation. There is no sign of any appreciable surface drainage through the dump. Two samples were reported in the literature. These samples consisted of ABA testing conducted in 1995 on two samples, one indicating that it had the potential to produce acid.

LOCATION	SAMPLE ID	PASTE PH	S (tot.) %	S (SO4) %	AP	NP	NET NP	NP/AP
Adit Dump	95UKHTD01	6.33	1.16	0.11	32.81	0.00	-32.8	<0.10
Adit Dump	95UKHTD02	6.78	0.33	0.26	2.19	0.00	-2.2	<0.10

Note: AP and NP are calculated in kg CaCO3/tonne

5.3 Tailings Impoundments

No tailings impoundments were noted at the site.

5.4 Tailings Ponds

No tailings ponds were noted at the site.

5.5 Minesite Water Treatment

There is no minesite water treatment being conducted at this site.

6. MINE SITE INFRASTRUCTURE

6.1 Buildings

There are two buildings at the site. Building 76A serves as a workshop and office accommodations on two separate levels. Building 76B is the portal entranceway. There was building debris scattered around the site, however, there was no visual sign of staining on the surrounding soils. Wood cribbing and some wood sheathing (photo 76-1) is located to the west of the road to reinforce a waste rock dump that was used as a loading area (photo 76-2).

Building 76A – Office/Workshop (photo 76-3)

Office and workshop combined. Flooring is dirt on the lower level that has sustained some staining due to the nature of operations. Fibreglass insulation was used in the office area.
Location: Listed as Building 76A on the Townsite mine location map.
Dimensions (L x W x H): 3m x 3m x 3m
Construction: Wood frame construction with tarpaper exterior and asphalt shingle roofing.
Paint: White paint was applied to the interior, however, most of the paint had worn off.
Asbestos: There is the possibility of the office floor tiles having asbestos (see samples below).
Foundation: Raised wood foundation.
Non-Hazardous Contents: No non-hazardous contents were found in the building.
Hazardous Contents: No hazardous contents were found in the building.
Samples: No samples were taken at building 76A. The tile flooring in the building was similar in nature to the tiles found at the Dixie Mine in Building 4A. Analyses completed on the sample indicated that there was some asbestos fiber in the sample, however, it tested between 1-10% indicating that there is very little asbestos in the tiles.

Building 76B - Adit Entrance (photo 76-4)

The portal structure was collapsed, there is timber cribbing visible, however, the rock overhang has caved in and the structure is considered a safety hazard. No services were noted at the portal. There was no drainage evident from the structure. No samples were taken at building 76B.

6.2 Fuel Storage

There was no indication of above ground storage tanks at the site. No surficial staining was noted around the exterior of the buildings. There was minor staining on the floor in the interior of the workshop.

6.3 Rail and Trestle

There had historically been a rail structure at the site however, there was only the cross timber infrastructure remaining.

6.4 Milling and Processing Infrastructure

There was no milling or processing infrastructure at the site.

6.5 Electrical Equipment

There were no power lines associated with the site.

7. SOLID WASTE DUMPS

There is a landfill (~60 m x 25 m x 4 m) situated approximately 150 meters west of the Townsite site (photo 76-5). The landfill reportedly contains metal debris (rails, bed frames, pipe & discarded machinery), empty drums and lumber capped with mine waste rock. This site was used by the Calumet town and nearby mines as their garbage dump (Personal Communication - M. Phillips) and may contain other unidentified wastes. There is no sign of any appreciable drainage through the dump. There is no sign of any vegetation stress around the toe of the landfill and the surface of the landfill is revegetating. No sampling was conducted.

8. POTENTIAL CONTAMINANTS OF CONCERN

8.1 Out-of-Service Transformers

No transformers were noted at the site.

8.2 Metals and Hydrocarbons in Soil

There was no evidence of surface staining at the site.

8.3 Solid Hazardous Materials

No solid hazardous waste was noted at the site.

9. WATER QUALITY

No water samples were taken at the site as there was no indication of water draining from the adit. There were no streams located nearby and no seepage was noted at the toe of the dump.

10. RECLAMATION

The site does not appear to be greatly disturbed by historical mining practices. There is one kill zone associated with the waste rock area that is not revegetating. Those areas associated with solid waste disposal do not appear to have produced any kill zones.

11. OTHER SOURCES OF INFORMATION AND DATA

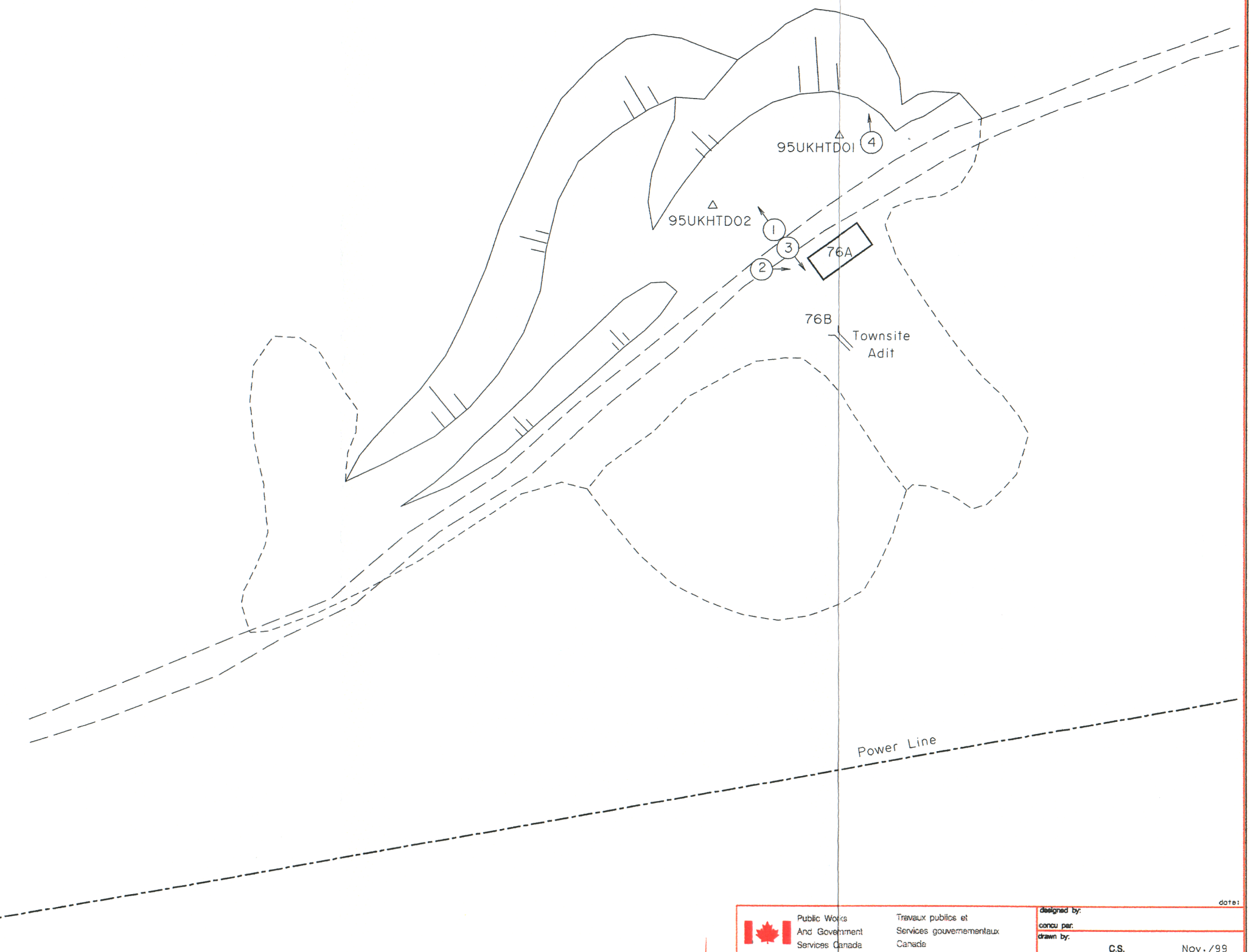
No other sources of information and data were identified.

12. REFERENCES AND PERSONAL COMMUNICATIONS

United Keno Hill Mines Limited. 1996. *United Keno Hill Mines Limited – Site Characterization.* Report No. UKH/96/01, prepared by Access Mining Consultants Limited.

United Keno Hill Mines Limited. 1996. *United Keno Hill Mines Limited – Site Characterization, Technical Appendices I-VI.* Report No. UKH/96/01, prepared by Access Mining Consultants Limited.

- 22A* Building (22A: building site present reference*) Indicates Asbestos Material
- 22A Collapsed Building
- Adit
- Collapsed Adit
- Shaft
- Collapsed/Backfilled Shaft
- Mine Rock Dump
- Bedrock Open Pit
- Trench
- Stripped Overburden Stockpile
- Stripped / Disturbed Area
- Outcrop Boundary
- Highway
- Road (gravel, 2 wheel drive)
- Road (gravel, 4X4 accessible)
- Road (inaccessible)
- Trail
- Culvert
- 24501-01 1999 Soil Sample (this study)
- Pre 1999 Soil Sample (other sources)
- 25WR04-01 1999 Waste Rock Sample (this study)
- Pre 1999 Waste Rock Sample (other sources)
- WQ-12-06 1999 Water Sample
- Pre 1999 Water Sample
- Tension Cracks
- Mass Movement (note: for Forms: BelleKeno)
- Groundwater Seep
- Surface Water Flow (Stream, Creek, River)
- Lake
- Settling Pond / Water Treatment Pond
- Tailings Dam / Tailings Pond / Mill Tails
- Ponded Water / Trench
- Barrels
- Abandoned Equipment (compressors, ore cars, rails, air and water pipe)
- Mine Rails / Trestle
- Collapsed Trestle
- Solid Waste Disposal Site
- Area of Soil Contamination
- *(6) Transformer Loaction (number of transformer in brackets)
- Power Line
- Power Line Collapsed
- Aerial Transmission Towers
- (5) Photo Site (arrow shows view direction)
- GPS Survey Location
- Former Building Site (Elsa)



0 10 20 30 40

Scale 1:1000

CAD FILE: SITE76.DGN

Public Works And Government Services Canada
Travaux publics et Services gouvernementaux Canada

Architectural & Engineering Services
Western Region

Drawing title: / Titre du dessin:

Townsite Mine Site #76
Site Assessment
Yukon Territory

date:	
designed by: / concu par:	
drawn by: / dessine par:	C.S. Nov./99
approved by: / approuve par:	
revisions:	
project no. / no. du projet:	125-12.01
dwg. no. / dessin no.	1 of 1

Photo 76-1: Facing north from the adit across loading area and dump site.

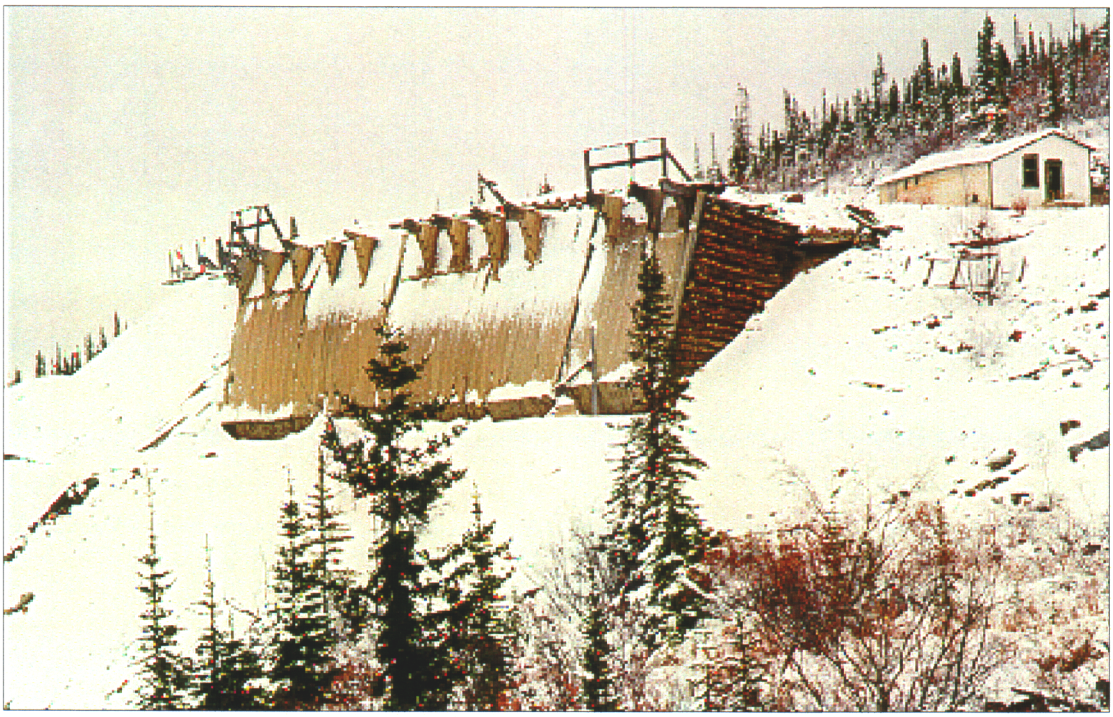


Photo 76-2: Timber retaining structure for the loading area.

Photo 76-3: Timber frame structure to the northeast of the adit.

Photo 76-4: Tcollapsed adit in the background.

Photo 76-5: Photo taken 150m below the Townsite mine waste dump of the solid waste dump.