

Memo

To: Dave Latoski
Regional Manager
Mining Inspections

From: Bill Leary
Mining Inspector
Mayo District

Date: November 28, 2000

Subject: Mine Safety Issues

While researching Mayo District mine safety concerns I found that several serious areas were identified in the spring of 1999 in a report for our Department. The information was contained in the Minfiles.

Please review the attached documentation and advise what will be an acceptable course of action.

BELLEKENO (#22)
(MINFILE# 105M 001y)

1. **LOCATION AND ACCESS**

Most of the Bellkeno site can be accessed by vehicle along the Sourdough Hill Trail about 2.5 to 3 km out of Keno City. The 625 level adit can be accessed along a maintained trail running on the north side of Lightening Creek out of Keno City and up Thunder Gulch. The site rises from an elevation of about 125 m at the 625 level adit to about 1400 m at the backfill site. The following UTM coordinates of the Bellkeno sub-sites are shown below.

	<u>SITE LOCATIONS</u>	
	<u>UTM Northing</u>	<u>UTM Easterely</u>
Bellkeno 625 level adit	7086760 m N	<u>487480 m E</u>
Bellkeno 200 level adit	7086650 m N	<u>487100 m E</u>
Bellkeno 100 level adit	7086460 m N	<u>486890 m E</u>
Mayo Mines adit	7086780 m N	<u>487220 m E</u>
Bellkeno Backfill site	7086260 m N	<u>486580 m E</u>
Eureka	7086240 m N	<u>487120 m E</u>

2. **SITE PHYSIOGRAPHY**

The Bellkeno site lies on the northeast slope of Sourdough Hill. Except for Eureka, the Bellkeno subsites are roughly aligned in a linear fashion up-slope from the 625 level adit to the backfill site. Surface water drainage from the area runs down the slope toward Thunder Gulch and Lightening creek.

4. **SITE HISTORY**

The minfile reports that work at the Bellkeno site began in 1921 at the Eureka sub-site and continued there until 1929. The development of the modern underground workings at Bellkeno

occurred in the early fifties at the 100 and 200 level adits and at the Mayo Mines adit. Production at the 625 level adit occurred from 1986 to 1990. The site is currently under care and maintenance status(Minfile).

Bellekeno 200 level adit (photo 22-7)

This sub-site is currently active under care and maintenance status. The 200 level adit provides ventilation and serves as an escape route for the modern workings at lower levels. It is connected to the 100 and 625 level adits.

Location: The adit is located at the end of a road that turns left off Sourdough Hill Trail about 500 m before the power lines (see Figure 3).

Dimensions: L x W x H: 5 m x 5 m x 2.5 m (exterior portal dimensions)

Supports: The portal is supported by logs ranging in diameter from 3 to 6 inches

Condition: The portal is constructed of logs and planks. It has no foundation or roofing material other than the planks. It is in fair condition and continues to be maintained by UKH Mine.

Accessibility: The adit entrance is left open to allow ventilation and provide an escape route.



Photo 22-7: View of Bellekeno 200 level adit entrance and green wooden electrical shed. (Azimuth 190°)

Bellekeno 100 level mine openings (photo 22- 10 and photo 22-1 1)

The 100 level adit and shaft are abandoned but they are still connected to the Bellekeno 200 and 625 level adits.

Location : The adit and shaft are located just off Sourdough Hill Trail on opposite sides under the power lines (see Figure 1).

Dimensions: The adit dimensions could not be determined due to the collapse of the portal. The shaft is 2 m x 1.5 m and about 15 m deep.

Supports: The portal is no longer supported.

Condition: Both the adit portal and the shaft house have collapsed.

Accessibility : These mine openings are accessible.



Photo 22-11: Collapsed structure enclosing shaft across Sourdough Hill Road from Bellekeno 100 level adit

Eureka Shaft I (photo 22-15 and 22-16)

Shaft I is the most obvious because it lies in the middle of a trail leading off of Sourdough Hill Road. It is connected to an adjacent open stope that has broken through to the surface (see Figure 5).

Location : Shaft I is located about 80 m along a trail that turns off of Sourdough Hill Trail about 300 m beyond the power lines and 150 m before a hairpin turn.

Dimensions: 2 m x 2m and about 6 m deep. The stope opening is 10 m long, 2 m wide, and filled to within 2m of the surface.

Condition: The shaft and stope remain unstable and could be prone to continued collapse.

Accessibility: Shaft I is accessible on foot from Sourdough Hill Road.



Photo 22-15: Eureka Shaft 1 located in the middle of a trail off of Sourdough Hill Road.

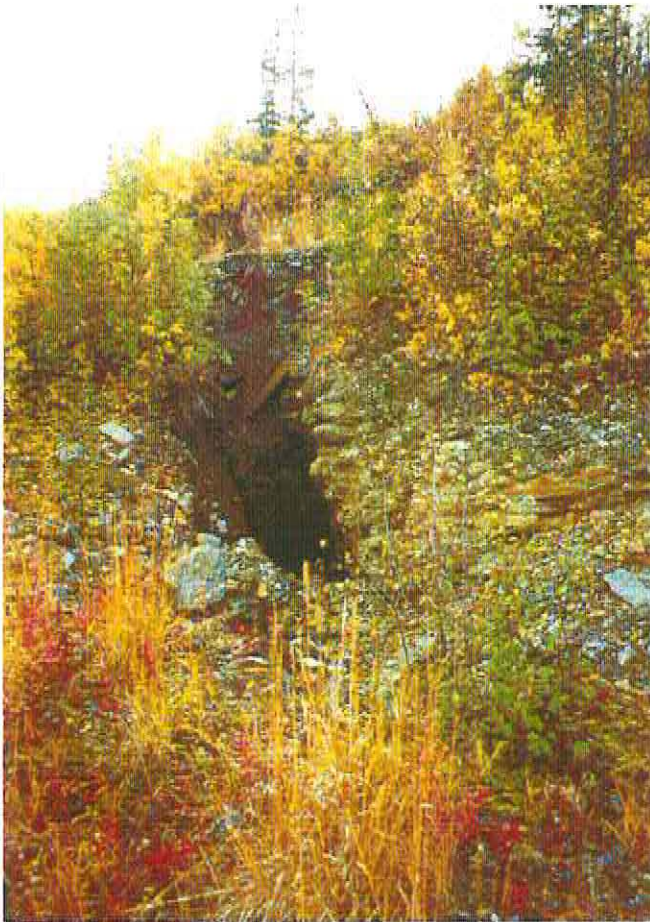


Photo 22-16: Stope broken through to surface just below Eureka Shaft 1.



Photo 22-18: Partially collapsed shaft (Eureka Shaft 3) located about 37 m south of Eureka Shaft 1.



Photo 22-17: Timbered raise (Eureka Raise 1). Open stope can be seen in background.

VANGUARD

SITE #49

MINFILE# 105M 010

1. LOCATION AND ACCESS

The site is located on the south slope of Keno Hill on the west side of Charity Gulch. Access is by an old 500m trail, connecting with the Keno 700 road at Charity Gulch that needs to be upgraded at Charity Gulch for four-wheel drive vehicle travel. The approximate UTM co-ordinates are 7 088 250m N and 489 300m E (Latitude: 63°55'22" N and Longitude: 135° 13'05" W).

2. SITE PHYSIOGRAPHY

Vanguard is located right at treeline at an elevation of 4100ft (1250m). The vegetation is mostly large shrubs and moss with patchy spruce trees, alders and grassy areas. The soil layer is thin and there are a number of talus slopes at and near the site. Surface runoff drains into Charity Gulch which flows south into Lightning Creek, located 1km downslope.

4. SITE HISTORY

Between 1920 and 1949, a number of shafts were excavated and 11.6 tonnes of ore (8160 g/t silver, 65% lead) was shipped in 1934. In 1948 and 1949 another 31.8 tonnes of ore (10285 g/t silver, 51% lead) was shipped from the site. In 1962 and 1963 another 91.4m of underground crosscutting was completed.

5. MINE DEVELOPMENT

The main showing with the adit, four shafts and a bulldozer trench were examined. All prospecting shafts were caved 1 - 2m below the surface. No ore was processed at the site and no tailings were encountered. There is no wastewater treatment facility at the site.

Shaft #4 (photo 49-3)

Shaft #4 is located 80m northwest of Shaft #3, 70m northeast of the adit. The shaft measures 1.5m² and is still open to about 3m down. The walls are supported with log cribbing. Three sides of the walls are still in good repair, the fourth wall is beginning to rot at the top and has partially collapsed.



Photo 49-3 : Vanguard. Shaft #4 is still open and in fairly good condition.

SHAMROCK (Original Shamrock) (#28)

(MINFILE# 105M 001ah)

1. LOCATION AND ACCESS

The site is located near the summit on the south west side of Keno Hill and is visible from Keno City (Figure 1). The site is accessible by 2 or 4-wheel drive vehicle from Keno City via a gravel road heading west along the face of Keno Hill and continuing on to the summit. The site is positioned at an elevation between 1505 and 1610 m above sea level. The location is given as 63056'30"N and 135014'40.0"W. UTM co ordinates are 7090536.905m N 488018.795m E.

2. SITE PHYSIOGRAPHY

The site, consisting of a series of test pits, shafts and adits, drains down the steep southwest talus slope of Keno Hill through a single ravine. A second larger and deeper ravine to the east cuts across the bottom of this ravine forming the west branch of Erickson Gulch. The gulch enters Christal Creek approximately 5 km to the west of the site, approximately 1.5 km north of Christal Lake. It appears that seasonal runoff through the site has resulted in little vegetation growth or soil accumulating near the bottom of the ravine. The entire site is located within an alpine ecosystem above the treeline. Permafrost features were not noted at the site.

4. SITE HISTORY

The original Shamrock mine was developed and mined from 1919 to 1939. A 37 m inclined shaft was sunk with levels at 65 and 110 feet. The 65 level broke out to an adit. Several small adits, shafts and test pits were mined in the area downslope from the Shamrock in this era. In 1953 and 1954 a new adit was driven at the 200 foot level, with further drifting and production. The 200 level adit is still visible. An open pit mine was constructed around the shaft in the period from 1985, to 1989. The open pit was excavated to the upper levels of the mine.

Several deep bulldozer trenches were dug to the southwest of the Original Shamrock in this era. The Shamrock King vein was mined by shallow open pit in 1988 and 1989. This mine lies about 100m east southeast of the Original Shamrock mine (Minfile).

200 Level Portal (photo 28-3)

Partially collapsed timbered portal. Under ground waste dumps with rails are present on both sides of the adit. The adit is located in a gully, and waste from the open pit above has partially covered the adit site. Constructed in 1953.

Location: Below open pit dump.

Dimensions: L, x W x H): Approximately 1.5 in x 1.5 m;
length unknown.

Supports: Wood timbers.

Condition : Partially collapsed, mostly blocked by open pit waste and debris

Accessibility : Access is possible but difficult, risk of collapse is evident.



Photo 28-3: Partially open adit entrance.

SADIE LADUE/WERNECKE CAMP

SITE #21

MINFILE 105001w,x

1. LOCATION AND ACCESS

The Sadie-Ladue mine site is located on the northwest slopes of Keno Hill at an elevation of 1,260m. The mine workings are spread across a number of claims and more than 700m northeast-southwest in what has become known as the Wemecke Camp. LTTM coordinates for the centre of the Wemecke Camp are 7,092,000m north and 486,400m east. The Wemecke Camp site is located 5.7km along the two-wheel drive Wemecke Road from the Wemecke Road/Keno Mine Road junction in Keno City.

2. SITE PHYSIOGRAPHY

The area surrounding Wemecke slopes moderately at roughly 7° to the northwest. Soils are poorly developed, consisting of discontinuous deposits of decomposed weathered bedrock and glacial till. The area of the camp itself is highly disturbed, the result of many years of mining. Permafrost is discontinuous in areas of northerly aspect. A previous study (McTaggart, 1960; cited in UKHM, 1996) reported that permafrost was noted to a depth of 80m in the area.

Surface water on the site is limited to seeps and ponded, stagnant groundwater. All the mine water is drained from the workings out the Sadie-Ladue 600 level (site #77) located approximately 800m to the north at an elevation of 1100m. The water from the Sadie-Ladue 600 drains down a gully to a lake at the head of Ladue Creek in the valley bottom (elevation of 750m). The gully is dry above the Sadie-Ladue 600 all the way up to the Wemecke site. Roadcut seeps collect and run west along the Wemecke Road ditch line beginning at the Lucky Queen road turnoff. A single seep was observed draining from above the Sadie mine area and the Lucky Queen road. Seeps are common along road cuts in the area, specifically the Wemecke Road and the Lower Faro Gulch Trail. Stagnant groundwater has collected in bedrock pits at the west and east ends of the site. The Wemecke area is located more than 650m west of Gambler Gulch, the nearest significant drainage.

SITE HISTORY

The Sadie-Friendship and Ladue mines were begun as separate operations in 1921 by Keno Hill Limited (KHL) and the Treadwell Yukon Company, Ltd. (TYCL), respectively. In 1923 the Ladue mine was flooded by excess water, requiring development of the Ladue 600 level waste and drainage tunnel (Sadie-Ladue 600; site #77). In 1924, TYCL optioned the Sadie-Friendship mine and amalgamated the operation of the two mines. The Wemecke camp and mill site were built in that same year to service what then became known as the Sadie-Ladue mine.

Mining continued on the Sadie-Ladue mine until 1929. All ore was hauled up shafts to surface, while most of the waste rock and all mine drainage was removed out the Sadie-Ladue 600 Level. The mill operated from 1925 to 1932, processing ore from the Sadie-Ladue and later the Lucky Queen (site #26) mines. Ore from the Lucky Queen located 2.5km to the south was brought by aerial tram to the Wemecke. Tailings from the mill were initially contained in a small pond structure

below the mill. Later the tails were allowed to flow down the dry gully below the site to a lake at the head of Ladue Creek in the valley below. The Wemecke tailings (site #80) now fill roughly a quarter of the lake. Tails material was observed along the upper sections of the gully above the Sadie-Ladue 600. The Wemecke mill was dismantled and moved to the Elsa mine site (site #3) in 1935-36.

The Wemecke camp was a small town extending over an area of over 32ha with bunkhouses, various residences, cabins, a mess hall and kitchen and a recreation hall, complete with bowling alley. Mine buildings included warehouses, powerhouse, boiler house, assay office and the mill itself. Over 18 buildings remain on the site in various states of disrepair.

In the 1980s, Archer Cathro & Associates Ltd. optioned the site and began a program of mining the mine crown pillars from surface. The Sadie and Ladue mine areas were extensively stripped of overburden and a series of pits and trenches were established during this phase of work. All ore recovered was shipped off site.

United Keno Hill Mines Ltd. has been monitoring the Sadie-Ladue mine waters at the Sadie-Ladue 600 level adit since 1985 (UKHM, 1996). An initial environmental site investigation was conducted on the site by the Department of Indian and Northern Development (DIAND) Technical Services Branch in 1993. In 1996, a more detailed environmental assessment was conducted of the site by Norecol, Dames and Moore, Inc. (NDM, 1997)

Collapsed Stope (Photo 21-1, 21-4)

Description: Collapsed ground resulting from failure of the underground workings below.

Location: Located between Shaft #2 and Pit #1, approximately 15m north-east of Pit #1.

Dimensions: The opening is approximately 7m long x 4m wide. The cavity formed is approximately 2m high and extends up to 5m underground.

Condition: The site geology consists of near flat lying quartzites with phyllitic partings that have fallen off in slabs into the abandoned workings below, forming the cavity. Slabs of rock up to 50kg are loose in the opening and pose a serious risk to persons entering. No signs have been posted identifying the hazard.

Accessibility : The site is easily accessible.



Photo 21-3: Open decline from recent (late 1980's) work. Note hazard from loose slabs in the roof resulting from horizontal foliation structures. (Azimuth 170°)

PADDY (# 58)
(MINFILE# IOSM 020)

1. LOCATION AND ACCESS

The site is located off of the Hansen-McQuesten Road, which joins Highway 11 approximately 5 km east of the village of Elsa and the main site is not accessible by vehicle. The primary means of accessing this site is along a gravel access road stemming from the Highway to the south west. The road loops around and enters the barrel storage area (photo 58-1), with one road continuing on and splitting to the south. The barrel storage area is situated at 63°56'55.0"N and 135°12'42.8"W at an approximate elevation of 700 m. The east road crosses Christal Creek at a demolished bridge and parallels the creek to the west, finally entering the main (adit) site through the Christal Creek canyon. The second (west) fork travels uphill and runs along the hill/canyon top to the north before ending above the adit immediately west of the east fork.

A second road exits the barrel storage area to the east, turning north and running along the top of the canyon before rejoining the west fork of the main road north of the adit site and north of the new trenching area. The adit is at 63°56'55.0"N and 135°02'42.8"W at an approximate elevation of 730 m. UTM coordinates are 7091342.832m N and 481450.112m E.

2. SITE PHYSIOGRAPHY

The site is spread out along Christal Creek to the north of the Highway. The creek itself enters a canyon to the north of the main adit site. The adit and waste rock slope are spread down a steep hillside immediately west of the creek with some trenching and waste rock piles present on at the top of the slope above the adit. A gravel road runs north-south parallel to the creek and a steep sparsely forested hill is present immediately east of the road. Another gravel access road runs north along the top of the hill to the west of the adit. Second growth forest is present in this area, with mature spruce forest further to the east. The road accesses a second area of trenching to the north, which is located immediately west of the canyon. Drainage from each of these areas is directly into Christal Creek.

4. SITE HISTORY

Two short adits were driven after staking in 1918, the longest adit was 10 m. Bulldozer trenching was performed in the 1950 to 1963 era, ground sluicing in 1964-65, a short adit in 1965, and two drill holes in 1966. Underground exploration was conducted in 1968, 1969 and 1971. Additional bulldozing was conducted in 1975, and 25 holes were drilled in 1976. 224 tonnes of ore were mined in 1978. Trenching was conducted in 1982. 20 tonnes of hand-sorted ore were mined in 1984. Further trenching was conducted in 1986, 1990 and 1993.

(Source: Yukon Minfile)

5. MINE DEVELOPMENT

5.1 Mine Openings And Excavations

Note: Only one adit was noted in recent field investigations. The open cut above the adit may have destroyed the early adits. It is thought that almost all of the underground mining was conducted from the known adit.

Adit (photo 58-2)

A timbered adit is present just above Christal Creek to the west.

Location: See map.

Dimensions : About 2.5 x 2.5 m size, total length is at least 241m of drifting and crosscutting, more than 61m of raising, and some stoping.

Supports: The timbered portal is partially collapsed.

Condition: Poor condition, could collapse at any time.

Accessibility: Fair access by foot, or by ATV on road above.



Photo 58-2: Open adit.

NO CASH 100 #7
(MINFILE # 105M 0010)

1. LOCATION AND ACCESS

Access to the site is from the Elsa townsite along Calumet Road crossing over porcupine gulch and taking a left turn onto the No Cash 100 Road. The site has a latitude of 63° 55' 08" N and longitude of 135° 27' 51" W. The NTS is 105M 14. The site is at an approximate altitude of 1100m. UTM co ordinates for the site are 7 088 058m N 477 230m E.

2. SITE PHYSIOGRAPHY

The No Cash 100 mine site is located on the northwest slope of Galena Hill at an elevation of 1,100meters above sea level. The mine site is similar in drainage to the No Cash 500 site. Drainage eventually empties into the No Cash Creek, down gradient of the site, towards the wetlands northeast of the Elsa tailings.

4. SITE HISTORY

The No Cash site has been in operation since the 1920's and from 1928 to 1931, 1-9 tonnes of ore were produced at 25m drifting on the 50-level. From 1948 to 1975, mining was conducted from the 500-level adit measuring 1115m in length producing a 5900 tonne dump at the portal. There are four raises and the Brefalt Shaft, plus a very small pit at the northeast end of the veins. Deep trenches can be found on the surface near the shaft.

Building 7B - Garage(Photo 6-4)

Location: Located on the No Cash 100 site map approximately 10m west of the shafthouse.

Dimensions: (L x W x H): 14m x 14m x 10m

Construction: The structure consists of wood frame construction with metal sheathing on exterior walls and roof. The garage has 3 bays with painted double wooden doors on each bay.

Paint: Structure is unpainted except for the garage doors. Asbestos: No asbestos was noted at the building site.

Foundation: The foundation consists of an above grade concrete slab.

Non-Hazardous Contents: A large air compressor (photo 6-5) is located on the exterior wall on the northeast corner of the garage. An old abandoned air compressor (photo 6-6) is located near the southwest corner of the garage. Inside the structure is a boiler room that houses a boiler, compressor, electrical panel, and fan unit.

Hazardous Contents: A sample was taken of product labeled as 350 Chevron, from a 23L drum located immediately inside the garage (07-03-drum). There are no hazardous wastes associated with building 7B other than hydrocarbon products potentially contained within the on-site equipment. There was evidence that the equipment in the boiler room had been leaking product onto the surrounding concrete floor. A few fuel drums around the exterior of the garage were found to be empty. Soils surrounding the fuel drums were not stained. Soil staining was evident along the north side fronting the 3 bays, however, the staining was weathered and did not appear to have penetrated deeply into the surrounding soils.

Note: a small wood frame structure (photo 6-7) was located adjacent to the southeast corner of the garage. The structure measured 2.5m x 2.5m x 2.5m. There was one drum within the structure that was 3/4 full of an unknown viscous product. A sample was conducted on the drum to determine content (07-04-drum).

Samples:

Sample #	Sample Medium	Location	Lab Results
07-03-dmm	liquid	garage	PCB Content - <0.1 ppm .
07-04-drum	liquid	SHED BEHIND GARAGE	PCB CONTENT - 2.69 PPM

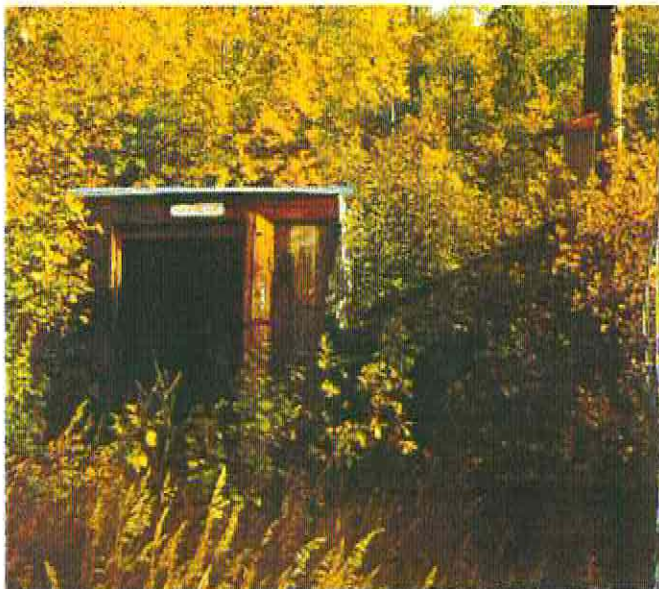


Photo 7-10: Adit to the No Cash 100 level. Note the tramway in the background,

MO (#52)
(MINFILE# 105M 013)

1. LOCATION AND ACCESS

The Mo site includes three areas. The first area of interest is on the Windy and Casy claims which are located on the east slope of Sourdough Hill. The other two areas, located on the south slope of Sourdough Hill are on the Bob and Boogla claims. All three areas can be accessed with a four-wheel drive vehicle along the Sourdough Hill Trail. The Windy and Casy claims are about 1 km south of the Sourdough Hill Road. The Bob claim can be found another 1 km further south just southeast of a three-way intersection in the trail. Turning southwest at the intersection leads to the Boogla claim about 0.5 km down the trail. The UTM coordinates for the Windy and Casy claims are 7085440 m N 487140 m E. The large trench on the Bob claim is at UTM coordinates 7084080 m N 486640 m E. The pit on the Boogla claim is at UTM coordinates 7085440 m N 487140 m E.

2. SITE PHYSIOGRAPHY

The Windy and Casy claims, one part of the Mo site, lie on the east slope of Sourdough Hill. Water runoff from this area drains into Thunder Gulch. The Bob and Boogla claims lie on the south slope of Sourdough Hill. Water runoff from these areas drains into Duncan Creek.

4. SITE HISTORY

The minfile reports that the Mo site was under development from 1968 to 1991. Most of the work occurred at the Windy and Casy claims from 1968 to 1989. The work primarily consisted of bulldozer trenching. The minfile refers to a 2.4 m adit developed in 1980. No adit was found in the area. At least two shafts were developed at the Windy and Casy claims in 1981 and in 1989

according to the minfile. According to the minfile bulldozer trenching at the Bob claim occurred in 1978. Bulldozer work at the Boogla claim occurred in 1991.

Shaft I (photo 52-3)

Two compartment shaft

Location: 'ui a trench at south end of Windy and Casy trenching about 22 m east of Pit 1 (see map).

Dimensions: 2.5 m x 2.5 m - filled to within 2 metres of trench floor

Condition: the shaft has either been filled or it has collapsed



Photo 52-3: View of Shaft 1 at Windy and Casy workings.

MAYBRUN(#53)
(MINFILE#105M 014)

1. LOCATION AND ACCESS

The Maybrun site is located on the south side of Thunder Gulch at the confluence of two creeks about 1.5 km south of Lightening Creek. The site can be accessed by driving to the end of Thunder Gulch Trail and scrambling across the placer mining developments in Thunder Gulch. The approximate UTM co-ordinates of the site are 7085540 m N 488040 m E. The elevation of the site is approximately 1175 m.

2. SITE PHYSIOGRAPHY

The Maybrun site lies on the south side of Thunder Gulch. A cabin and an adit discovered at the site are near to the creek. They are surrounded by large piles of boulders and gravel displaced by a placer mining operation in Thunder Gulch. A collapsed shaft is located uphill from the adit. Surface water drainage in this area flows towards Thunder Gulch.

4. SITE HISTORY

The minfile reports that the Maybrun site was host to up to 6 shafts and 4 adits. Work conducted at these development took place consistently from 1920 to 1994. It is estimated that at least 400 tonnes of ore were shipped from this site. Only one adit and one shaft were found at the Maybrun site.

5. MINE DEVELOPMENT

5.1 Mine Openings And Excavations

Adit I(photo 53-1)

Location: on the south side of Thunder Gulch behind large piles of placer tailings

Dimensions (H x W x L): 2.3 m x 2.8 m x 10 m plus drifting (about 10 m)

Supports: wood portal; underground developments appear to be unsupported

Condition: appears stable

Accessibility: open

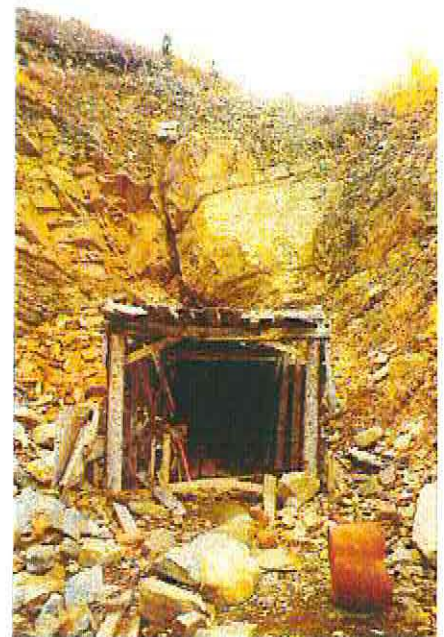


Photo 53-1: View of Adit 1 at Maybrun site. (AZ 234)

LUCKY QUEEN

SITE #26

MINFILE# 105MOOlad

LOCATION AND ACCESS

The Lucky Queen site is located on the northwestern slope of Keno Hill at an approximate elevation of 1510m. It is roughly 1.25km east and uphill of the Wemecke Camp/Sadie Ladue Mine site. Approximate UTM coordinates are 7092 700m N and 487 700m E. The Silver Queen site is located 7.3km north by road from the Wemecke Road/Keno Mine Road junction in Keno City. Access is gained via the Upper Faro Gulch Trail, a rough two-wheel drive truck road which branches to the east off the Wemecke Road 5.1 km north from Keno City.

Given the aspect of the slope and the elevation, the site is likely underlain by permafrost. According a report prepared by Access in 1996 for United Keno Hills Mines, mine workings on the north slope of Keno Hill intersected permafrost 400 feet below ground surface.

The first significant bottom drainage system is Ladue Creek located roughly 4.8km to the northwest. The surface runoff from the mine site drains towards the northwest before it dissipates into the porous soil cover. No other surface water was observed in the vicinity of the site at the time of inspection.

SITE HISTORY

Underground mining from an inclined shaft and from the 50, 100, 200 and 300 levels was undertaken from 1928 to 1932 (level elevations refer to feet below surface). Ore was transported to the Wemecke mill located at the Wemecke site using an aerial tramway. In the 1970s the inclined shaft was rehabilitated down to the 300 level and covered with a building. Between 1984 to 1988, UKHM constructed a 1,737m adit at the 500 level to explore the Lucky Queen vein (for further discussion, see Site #25 report: Blackcap, Shepherd and LQ Adit). Surface bulldozer and excavator stripping around the shaft was undertaken during the late 1980s.

Mine Openings and Excavations

There are 3 shafts and six main trenches/pit excavations. One shaft is still open; another has collapsed; the last one has presumably been filled and buried under the waste cover. A few smaller trenches oriented northwest-southeast, are located west of trench #6.

Shaft #1

Shaft #1 was rehabilitated in the 1970s and is still open. A wooden building (for description, see Section 6.1 below; also photo 26-7) has been built to cover the inclined shaft.

Location: The building and shaft are upgradient of the trenches, on the east side of the Lucky Queen Road.

Dimensions (L x W x H): 4m x 3m x 5m

Supports: Large wooden timber structure.

Condition: Sound, safe.

Accessibility: The shaft is enclosed in building 26-A, although access is easily gained through the unsealed ore dump. Inside, the manway and ladders are open and easily accessed.



Photo 26-7: Interior of Lucky Queen headframe building (Bldg. 26-A) showing open manway and boarded shaft opening.

LAKE
SITE# 27
MINFILE# 105MOOlac

LOCATION AND ACCESS

The Lake exploration mine site is located mid-way down the northwestern slope of Keno Hill at an elevation of 1190m. The site is located approximately 250m west of Gambler Gulch. Access to site is via the Lower Faro Gulch Trail, which follows an overgrown mine road east from the Wemecke Camp. The lake site is located roughly 140m north of a point 650m east from the Wemecke Camp along the Lower Faro gulch Trail. LTTM co-ordinates for the site are 7092 700m N and 487 300m E.

SITE HISTORY

Little is known about the history of the site. Given the age of the second-growth vegetation, the property is believed to have been work@d in the 1950s or 1960s. Most of the work on the site centred around a small pit with an inclined shaft. Waste dumps associated with the shaft suggest 50 to 100 metres, of underground development. The surrounding area was extensively cleared, with numerous bladed roads and level pads developed.

MINE DEVELOPMENT

Mine development encountered at Lake includes two shafts, a collapsed adit and three trenches. The mine workings are referred to as the upper shaft, the main shaft and the lower adit. A possible forth, collapsed mine opening (either a raise or an adit) was also identified near the main shaft. There are four waste rock piles associated with these workings. The main shaft is located at the southwest end of a trench cut more than 3m into bedrock.

Main Shaft (photos 27-1, 27-2)

A series of ladders connects the top of the main shaft headframe to a deck located 3m below ground. The shaft is blocked by ice 4m below ground level. The shaft was excavated at an incline of 80'. Less than 20m of metal air and water lines extend from the shaft to surface.

Location: 105m north from the road.

Dimensions (L x W x H): 3.5m x 2.5m x 8.5m

Supports: The frame is constructed of heavy sawn timbers and planking. A retaining wall constructed out of

2"x 4" timbers supports the walls at the entrance to the shaft.

Condition: The headframe and the retaining walls are weathered but are still in fair condition.



Photo 27-1: Shaft headframe (Bldg. 27-1), (Azimuth 340°)

KENO No. 9, MAIN FAULT & SHAMROCK JIS

SITE #36

MINFILE #105M 001no, au & ay(?)

This report describes the field investigation of parts of the Keno No.9 Vein system including the:

- No.9 Vein Open Pit;
- No.3 Vein Open Pit and Adit;
- Shamrock J 1 8 Vein Raise;
- Faro Gulch Portal;
- Keno No.4 and No.5 Vein Adits and Trenches

Investigations of the Keno 200 and 700 levels, the Porcupine Open Pit, and the Comstock 150 and 200 levels are reported separately (site #32). The sites of the Keno No. 1 Vein Adits and the No. 12 Vein Adit were not investigated.

LOCATION AND ACCESS

This site report includes north portions of the Keno No. 9 Vein system. The No. 3 and 9 Vein Open Pits are located on Keno Hill summit at the Signpost, at the end of the Keno Signpost road. The Faro Gulch Portal is approximately 300m east northeast of the Signpost in the cliff forming Faro Gulch cirque and is inaccessible. The No. 4 and 5 Veins, 300m south of the Signpost, cross Keno Ell summit and are accessible on the north end by a bulldozer trail, and on the south by the road from the Keno Signpost to the Keno 200 Adit. The covered raise on the Shamrock J - Keno IS Vein is approximately 450m west of the Signpost and is reached by a road from the Keno Signpost to the Shamrock Mine. The approximate UTM co-ordinates are 7 090 200m N and 489 300m E.

SITE LOCATIONS

<u>SITE</u>	<u>Minfile</u>	<u>UTM North</u>	<u>UTM East</u>	<u>Elevation</u>
Keno #9 & #3 Flits	105MOOlao	7 090 500m	489 550m	1,615m
Shamrock J18	n/a	7 090 625m	489,200m	1,680m
Faro Gulch Portal	105MOOlao	7 090 550m	489 700m	1,680m
No 4 & 5 Vein Adits	n/a	7 090 125m	489 300m	1,670m

4. SITE HISTORY

The No. 3 Vein fault was investigated in the early 1920s by a 45.7m shaft and underground development on three levels. A small quantity of ore was mined during this period.

The No. 9 Vein was first developed in the 1920s by shafts, adits, and winze to 450 feet below surface, and drifting on levels to 300 feet below surface. Massive high-grade ore was mined, placed into sacks at the surface and transported to Mayo for shipment by paddle wheeler. Approximately 9,000 tons of disseminated ore remains in the mine.

In approximately 1957, United Keno Hill Mines reopened the mine with a 200 Level and 700 Level Adits, an internal shaft below the 700 Adit, and 8 levels over a vertical distance about 1000 feet. The 200 and 700 Levels were collared on the south slopes of Keno Summit at the 1,640m and 1,430m elevations respectively. In total, 283,557 tons of ore grading 44.26oz I ton silver, 10.62% lead and 3.74% zinc was mined underground on the No. 9 Vein before shut down in the late 1970's.

Small open pits were established on the No. 3 and 9 Veins by Archer, Cathro & Associates Limited during the period 1-989-90. The No.3 Open Pit is up to 15m deep and the No. 9 Vein is 30m deep. Both encountered old workings dating from the 1920's that were ice filled. The original No.3 and No.9 Vein Shafts were collapsed and backfilled at this time.

The No.4 Vein was explored by 2 adits and a number of hand trenches in the 1920s, where ore shoots containing a few hundred tons of highly oxidized ore were intersected. No history was available for the No.5-2 or No.5 Vein Adits, although it is likely related to the work completed on the No.4 Vein. The most recent work is bulldozer trenching.

The Shamrock J18 Vein was discovered and mined from the Keno Mine underground workings in the early 1970's. A raise to surface, complete with hoist building, electrical supply lines and shop, was established to provide access for supplies, equipment and miners.

The Faro Gulch Portal was developed by UKHM from a cross cut driven from a drift on the 200 Level Main Fault Vein. It was used for ventilation and to dump waste rock from underground development on the Main Fault Vein and No. 12 Vein. Any ore was transported by tram to the 200 Level Adit dump.

5. MINE DEVELOPMENT

The Keno Mine was developed intermittently over a period of over 70 years. This report describes workings and mine infrastructure developed on the north portion of the mine including: the No. 9 Vein Open Pit; No. 3 Vein Open Pit and Adit; Shamrock J 18 Vein Raise; Faro Gulch Portal; the Keno No 4 Trenches and Upper Adit, and; the No. 5 Vein Trenches. There are a number of waste rock piles associated with these workings. Ore was not processed at this site and no tailings were encountered. There is no mine waste water treatment facility at this site.

Shamrock J18 Covered Raise (Photo 36-2)

The raise is located 450m west of the Signpost, on the eastern side of the road leading to the Shamrock site. The building covering the raise is described in Section 6.1 below.

Dimensions (L x W x H): unknown

Condition: The ground around the raise and building covering it are unstable and collapsing. An area of approximately 7m by 10 m has collapsed.

Accessibility: The building can be accessed. The raise and the collapsed area around it have been fenced off.

6.1 Building 32A (Photos 36-2)

A wood frame building clad in corrugated steel covers Shamrock J 18 Raise. Part of the building and the underground workings below it have collapsed and are fenced off.

Dimensions (L x W x H): 15m x 10m x 4m

Paint: No paint was observed.

Asbestos: The interior of the building is clad in a gyprock with asbestos coating.

Foundation: None.

Condition: Half the building is unstable and has partially collapsed into the underground workings below. Non-

Hazardous Contents: There is an electrical panel inside of the building.

Hazardous Contents: No hazardous contents were observed.



Photo 36-2 : Keno No.9 Shamrock J18 Vein Raise Building (36-A). Note collapse of building into falling underground workings and fencing around opening. Also, transformer on power pole in background. (Azimuth 290o).

KENO 700, PORCUPINE, AND COMSTOCK

SITE #32

105M 001an, at & 105M 008

This report describes the field investigation of parts of the Keno No. 9 System, including the Keno 200 and 700 levels, the Porcupine Open Pit, and the Comstock 150 and 200 levels. Investigations of the Shamrock J 1 8 Vein Raise, No. 3 Vein Open Pit and Adit, No. 9 Vein Open Pit, Faro Gulch Portal, the Keno No 4 trenches and Upper Adit and the No.

5 Vein trenches are reported in a separate report (site #36). The sites of the Keno No. 1 Vein Adits, Keno No. 4 and 5 Shafts, Keno No. 6 Vein and No. 2 Vein Shafts, Keno No.

5 Vein Adit, and Keno No. 12 Vein Adit were not investigated.

1. LOCATION AND ACCESS

The sites described in this report are spread southeast of Keno Summit on Keno Hill between 1,440m and 1,650m asl. They occur across a broad, relatively gentle slope above Hope Gulch. Access to Keno No. 9 is east along the Keno 700 Road from Keno City. A map showing the relative locations of the workings is provided in Map 32-1.

<u>MinFile</u>	<u>UTM North</u>	<u>UTM East</u>	<u>Elevation</u>
Keno 700 Level 105MOOlat	7,089,350m	490,250m	1,440
Keno 200 Level 105MOO Ian	7,089,825m	489,550m	1,615m
Porcupine Pit 105MOO Ian	7,089,850m	489,850m	1,605m
Comstock 150 & 200 105MOO8	7,089,900m	490,100m	1,645m

2. SITE PHYSIOGRAPHY

The Keno No. 9 System (including Keno 200 and 700, Porcupine, and Comstock 150 and 200) of mine sites is situated along a broad and gentle southeast-facing slope which converges and drains down into Hope Gulch approximately 800 in further to the southeast (Map 32-1). From here, Hope Gulch drains into Lightning Creek further to the south. The sites occur well above the treeline, located in sub-alpine to alpine tundra terrain, with characteristic shrub vegetation and soils. Raised frost-heave areas, polygons and the high altitude suggest the presence of continuous permafrost in the area (Photo 32-

1). The mine system was recorded as being in permafrost at the 400 level from the summit.

4. SITE HISTORY (from original niinfile)

Current claims in the area include Keno, Roulette, Rico, Minto, Pinochle, Porcupine, Wolverine etc. and are owned by United Keno Hill Mines Ltd. (UKHM). The land tenure is leased quart2 claims, in addition to surface leases at the Wolverine claim (at Keno 700), F.B. 16735, UKHM 010; and the old Keno Summit townsite, 000007. Operations began with UKHM starting in 1919, during which the No. 9 mine was developed and worked to the 300 level using shafts and adits, followed by an incline shaft below 300.

By 1924, two more shafts were added including the No. 3 vein, which was developed with a 50 m shaft at levels 30 (adit), 75, and 150; and No. 12 vein with a 107 m adit. Three additional adits, totaling 158 m, were also developed at No. 1 vein in the 1920's. Prior to 1930, a 15 m shaft, 61 m adit and 49 m drift were developed at the Porcupine claim. Bulldozing along the vein at No. 6 was conducted between 1948 to 1949 and a 13 m shaft was sunk and 5 m drift in 1952 during which some ore was mined. In 1954, two adits at the 150 and 275 levels were conducted at Comstock Porcupine. The Keno 200 level adit was developed in 1956 with a 416 m crosscut and 100 m drift. Between 1958 and 1982, activities included the development of the 700 level adit, connection and further development of the levels, an internal shaft from the 700 to 1075 level and a vent raised from the 400 level. Porcupine Pit was excavated in 1977 leaving a 3000 tonne dump; the earlier shaft and adit from the late 1920's were destroyed. Reported adit waste dumps include Keno 700 - 25,000 tonneau, Comstock 275 - 2,800 tonnes, and Keno 200 - 13,250 tonnes. More recently the Keno 700 adit has been subject to ice plug damming.

resulting in erosion of the waste dump from periodic release of the plug. The adit is also draining through a culvert under the waste dump. Future mining is planned by UKHM for the No. 18 vein.

5. MINE DEVELOPMENT

5.1. Mine Openings and Excavations

Keno 700 Adit (Photo 32-2)

Description: Portal is enclosed in plywood housing with reinforced metal aluminum roofing; deep melt water occurs on the eroding portal floor. There is a rail car on the track inside the shack.

Location: Located in the centre of Keno 700 building site (Building 7, Map Figures 32-1 and 32-2) on the Wolverine claim

Dimensions (L x W x H): portal opening - ? in x 2 in x 2.5 in

Support: railway tie wood supports along inner portal walls in relatively good condition, but beginning to rot.

Condition: structure appears to be stable

Accessibility: Inaccessible. A locked fence blocks the main adit entrance, but entry can be gained from a open side door. A large ice plug blocks a majority of the portal opening.



Photo 32-2 : Keno 700, Mine adit shed (building 7) looking N.W.

Keno 200 Adit (Photo 32-3)

Description: Portal is enclosed in plywood housing with tar paper siding and roofing, a portion of which has blown off the top. A rail car was found on the track within the shack in front of the portal opening. Some equipment, mostly ties and metal parts, was also stored along the inside of the shack.

Location: Located at Keno 200 (Map Figures 32-1 and 32-3) north of Keno 700, west of the road of the same name.

Dimensions (L x W x H): portal - 1.5 in W x 2 in H

Support: log reinforced walls at portal entrance (see Photo 32-4)

Condition: stable near portal entrance; however, some wall collapse observed 3 m into adit (see Photo 32-4)

Accessibility: Entry can be gained from an open two-sided door at the front.



Photo 32.3 : Keno 200. Adit shack looking W.

Comstock 150 Adit (Photos 32-5, 32-6)

Description: Portal is enclosed in on the north-west side of two-roomed wood plank housing with reinforced aluminum metal roof-, a portion of the reinforcing has been blown off. Access door to other room has been removed. This second room consists of a small office with a wood floor, electrical supply, switch box and an old desk. A small vent shaft enclosed in a stable wood housing, with an aluminum metal reinforced roof and hand ladder occurs at the 100 level just above this adit (Photo 32-6).

Location: Located at Comstock 150 (Map Figures 32-1 and 32-4) northeast of Keno 700, near the east end of the road of the same name.

Dimensions (L x W x H): portal - ? m x 1.5 m x 2 m

Supports: log reinforced walls at portal entrance

Condition: appears to be stable near portal entrance, shack is shifting but solid

Accessibiliy: Access door to the adit has been sealed but partially damaged (see Photo 32-5).



Photo 32-5 : Comstock-Keno 150. Adit Shack (looking N.).

Comstock 200 Adit - (Photo 32-7)

Description: Portal is enclosed in plywood housing with aluminum-reinforced siding and roof; a portion of the roof has been blown off. The floor of the adit shack consists of soft mud.

Location: Located at Comstock 200 (Map Figures 32-1 and 32-5) northeast of Keno 700, near the east end of the road of the same name, and directly below Comstock 150.

Dimensions (L x W x H): portal - 1.5 m W x 2 m H

Support : plywood and log reinforced walls at portal entrance, still in good condition

Condition: appears to be stable near portal entrance, shack is shifting but solid

Accessibility: The main access door to the adit has been locked; however, access can be gained through a second smaller door on the west side of the adit shack.



Photo 32-7 : Comstock-Keno 200. Adit entrance (looking N.E.)

HIGHLANDER (#29)
(MINFILE # 105M 001ai)

1. LOCATION AND ACCESS:

The Highlander abandoned mine site is 6 km north-northeast of the community of Keno Hill and 2 km northwest of Keno Summit, at 1370 metres to 1440 metres above sea level (Figure 1). It is located at the approximate UTM co-ordinates 7 092 1 00m N and 487 900m E. Access to the property is via the Silver Trail Tourism Association's Keno City trail network, Trail Number 4 - Gambler Gulch Trail, and Trail Number 5 - Faro Gulch Trail. An unserviced gravel road, with rough sections, from Keno City provides vehicle access to within 1 km of the site. The last kilometre is a footpath that is suitable for all-terrain vehicles, with minor upgrading.

4. SITE HISTORY

The Highlander property was likely staked in 1919-1920, following the discovery of the rich No. 9 vein on Keno Hill. Work on the Highlander claim and adjacent claims to 1929 included six open-cuts (most of which sloughed in by 1929), and an inaccessible 8metre shaft that terminated in a drift, 14.6 metres long (GSC Memoir 284, p.603.). Inaccessible open-cuts and a shaft on the Highlander claim are also described by RW. Boyle (GSC Bulletin III, p. 35.) after visiting the site between 1953 and 1955.

The buildings appear to have been built between 20 and 40 years ago, and the 10,000 to 15,000 tonnes of waste rock on the site was probably generated at least that long ago. The volume of waste rock indicates that at least 500 meters of underground development occurred at the Highlander site (SRK, 1996).

5. MINE DEVELOPMENT

Mine development at the lower workings includes a collapsed adit, two waste rock piles and a number of wood frame buildings located immediately adjacent to the stream in Gambler Gulch, and a second adit and waste rock complex located to the southwest on the hillside above the stream.

Upper Adits (photos 29-2,3)

Location: Two, perhaps three, adits or deep open-cuts along western edge of upper waste rock pile.

Dimensions: (L x W x H): N/A

Supports: N/A

Condition: Adits are collapsed.

Accessibility: Northernmost adit is partially blocked but still accessible. Other adits are blocked with waste rock.



Photo 29-2: Northern partly collapsed adit, upper workings.

HECTOR-CALUMET

Site No. 9

MINFILE: 105M 001hj

1. LOCATION AND ACCESS

The Hector-Calumet mine site is located on the northwest slope of Galena Hill, on the Calumet Road (Site # 9, Figure 1). The Hector adit and loading area are at an elevation of 4100 feet (1250m), and the remaining workings and waste rock piles are at higher elevations. The NTS co-ordinates for the adit are 7 088 30ON 480 900E.

From Keno City, the site can be accessed by travelling west along Highway 2 toward Mayo to Elsa, then following the Calumet Road 6.4 km uphill to the Hector-Calumet site.

Alternatively, the site can be reached by taking the Duncan Creek Road south from Keno City 3.8 km, then turning onto the Calumet Back Road and travelling approximately 7.6 km to the Hector-Calumet portal. All roads are gravel and are accessible by 4WD vehicle.

4. SITE HISTORY

The Hector-Calumet Mine was the largest producer in the area and was responsible for just over half of UKHM's total silver production. Extensive underground development and production occurred between 1935 and 1941, and between 1945 and 1972, and the site has more underground workings than any other mine in the district. The main portal at the present

site was constructed in 1957. The total production at Hector-Calumet was 2,468,723 tonnes grading 1212g/t silver, 7.5% lead, and 6.2% zinc (Minfile report). Ore was milled at the Elsa Mill and was transported there by tram. The wooden tram towers are still standing and reportedly the cable is lying on the ground beneath them.

The Calumet C-Structure open pit was excavated in 1981. In 1984-85, the Calumet I-15 (recovery of the pillars on the #1 and #15 veins), the Calumet 2 (recovery of crown pillars in Hector #I vein), and the Calumet 4-11 pits were developed. The areas around these pits also show evidence of earlier shallow trenching.

5.1 Mine Openings And Excavations

Excavations at the site consist of the a shaft, the Hector adit, four open pits (Calumet 1-15, Hector, the 4-11 pit and Calumet C-Structure), and several trenches. Locations are shown on Figure 2.

Hector Adit (Photo 9-1)

Description: Hector adit portal at 400 level.

Location: On the Calumet Road.

Dimensions (L x W x H): 366 m (at least) x 3 m x 3 m

Condition: The adit appears to be stable but could only see to about 5 m.

Supports: Cement portal with wood retaining walls and metal doors. Adit entrance is constructed with wooden beams. There is a metal column has been placed about 1 m into adit, in the center, to support the beams.

Accessibility: The lock is off the doors. Approximately 3 m into the adit, most of the adit is blocked with rock debris to about 0.5 m of the roof.



Photo 9-1. Hector Adit, showing the buttressing, old rails and debris.

GOLD OUEEN

SITE #44

MINFILE# 105M 004

1. LOCATION AND ACCESS

The Gold Queen site is located on the north side of Keno Hill, approximately 700m northwest of Monument Hill summit and at the headwaters of Silver Basin Gulch. Access is possible via the Silver Basin Gulch Trail approximately 4km from the signpost at the Keno Hill summit. At the time of the visit, travel by vehicle was stopped by a washout at the start of the descent into the Gulch. The site is located at the approximate UTM co-ordinates of 7 091 700m N and 491 350m E (Latitude: 63°56' 41" N and Longitude 135° 09' 16" W).

2. SITE PHYSIOGRAPIFY

Gold Queen is on a moderate to steep north-facing slope of Keno Hill, just below Monument Hill summit, at an elevation of roughly 4900ft (1490m). Given the aspect and the elevation, the area is presumably underlain by permafrost. The site is just at treeline, with the vegetation dominated by small shrubs and grasses with the occasional spruce tree. Surface runoff from the site drains to the north into Silver Basin Gulch, a tributary of the Keno Ladue River.

4. SITE HISTORY

The site was explored by prospecting pits, an adit and bulldozer trenching between the years of 1960 and 1986

5. MINE DEVELOPMENT

One adit and one trench were visited. No ore was processed at the site and no tailings were encountered. There is no waste water treatment facility at this site.

5.1 Mine Openings and Excavations

Gold Queen Adit (photo 44-1)

The adit was collared at the base of a 15m high cliff, immediately east of a strong flowing tributary of Silver Basin Gulch. Below the adit the tributary disappears into the talus. The adit itself was dry at the time of the site visit.

Dimensions (L x W x D): 1.5m x 1.5m x ?

Supports: The adit is supported by log cribbing at the portal.

Condition: The adit is in fair condition.

Accessibility: unknown



Photo 44-1 : Gold Queen. Entrance to the Gold Queen Adit. (Azimuth 190 °)

GALKENO MINE

(Includina Sime, Mcleod, And Suffivama)

Site No. 11

MINEFILE: 105M 0011.m

1. LOCATION AND ACCESS

The Galkeno site is located on the northeast slope of Galena Hill (Figure 1). The main (300 level) adit and loading area are at an elevation of approximately 3 800 feet (1 158 m), and the associated #35 Vein and Sime #4 and #6 open pits are located at elevations up to 4000 feet (1219 m). The NTS coordinates are 7 088 600N, 482 600 E.

Access to the site is via the Calumet Back Road north to Galkeno, approximately 3.9 km from the Duncan Creek road. Alternatively, the site can be reached from Elsa by taking the Calumet Road 3.3 km past the Hector Adit. All roads are gravel and are passable by 4WD vehicle.

McLeod Shaft (Photo 11-1)

Location: On a side road off of the road to the Sime #6 pit.

Dimensions (L x W x D): -1.5 m² x <2 m deep(?).

Condition: The wood of which the shaft is constructed is rotting.

Support: There is a wooden A-frame above the shaft that likely once held a pulley. The wooden supports around the shaft are in poor condition, and the ground to the NNE of the shaft is subsiding due to collapsing workings below (Photo 11-2).

Accessibility: Shaft is partially collapsed and blocked by wood debris.

Unnamed Shaft (Photo 11-3)

Location: Approximately 25 m north-northwest of the McLeod Shaft, just below the road.

Dimensions (L x W x D): -1.5 m² x <2 m deep(?).

Condition: The bush has grown up around the shaft that is well hidden. The wooden supports for the shaft entrance has collapsed on one side and there are wooden timbers blocking the entrance.

Supports: The wooden supports around the shaft are in poor condition.

Accessibility: The shaft is inaccessible.

200 level adit (Photo 11-5)

Location: On a southeast oriented side road off of the Calumet Back Road. The turn-off to the side road is 800 m from the Galkeno 300 adit.

Dimensions (L x W x D): The portal is -2 m² but this is difficult to estimate since it is mostly collapsed. The length of the adit is approximately 75m, according to UKHM maps (UKHN4, 1996).

Condition: The portal is in poor condition.

Support : The wooden supports of the portal have mostly fallen.

Accessibility : The portal is accessible but appears unsafe. It was not entered to determine the depth.



Photo 11-1. McLeod Shaft, looking southeast.



Photo 11-5. Galkeno 200 level adit. Portal is open but is unsafe. The timbers of the portal are collapsing.



Photo 11-2. Subsidence over adit workings, near the McLeod Shaft. The collapsed area measures approximately one meter across.

GALKENO 900
SITE #12
MINFILE # 105MOOlm

1. LOCATION AND ACCESS

The Galkeno 900 site is at the eastern base of Galena Hill at an elevation of 880m, roughly 200m west of the north end of Christal Lake (Site #12, Figure 1). It is located at the approximate UTM co-ordinates 7 087 700m N and 483 600m E. Two wheel drive vehicle access is possible via an all-weather gravel road that branches off to the southwest from Highway 2 (2km west of Keno City). The site is about 0.6km from this junction along Galkeno 900 road.

2. SITE PHYSIOGRAPHY

The east facing Galkeno 900 site is on the gently sloping toe of Galena Hill at an elevation about 20m higher than Christal Lake. The ground around the site area contains a thick layer (>3m) of moss, soil and glacial overburden. The overburden is for the most part permanently frozen. The area is well vegetated with spruce trees and shrubs.

All surface water from this site flows into Christal Lake. Treated mine waters flow to Christal Lake from the site through a 3m deep creek gully that has formed since 1995. A small volume of untreated mine water is diverted into a constructed trial wetland. Water drains from the constructed trial wetland through a natural wetland and into Christal Lake. A seep from beside the constructed wetland also flows through the natural wetland and into Christal Lake.

3. GEOLOGY AND MINERALIZATION

The host rock is a medium to thick-bedded quartzite with graphitic schist and phyllite (Minfile #105M 001m). The vein is a zone of shearing and brecciation about 10m wide. Although open, the adit was not entered to examine the rock and mineralization types.

4. SITE HISTORY

The Galkeno 900 adit was constructed between the late 1950's and the early 1960's, and extends to a total length of 1,910m. The adit was constructed for a variety of reasons: to explore the down-dip extensions of the upper Galkeno workings, to provide a lower elevation haulage level, and to dewater the McLeod Vein workings. The adit was abandoned due to poor ground conditions, and has never entered production. The Galkeno 900 underground workings do not connect to other mine workings at higher elevations, including mined out stopes (United Keno Hill Mines Limited, 1996).

In 1994, a concrete bulkhead was installed 380m in from the portal to flood the adit and plug mine water discharge that contained high zinc concentrations. Flooding of the underground workings re-directed water to previously-dry workings located at higher elevation, most notably the Galkeno 300 adit, and to springs not associated with the underground workings. The apparent failure of the bulkhead approach has required the installation of a small water

treatment facility in the portal of the Galkeno 900 adit and the construction of two settling ponds. A trial wetland was constructed 75m east of the adit during the summer of 1995 to reduce the metals content of the mine discharge waters.

Settling ponds (photos 12-5, 12-6)

At the time of the site inspection, the two ponds were close to capacity with water.

Dimensions (L x W x DepLh): 19m x 19m x 30cm (both ponds)

Location: 85m southeast of the adit entrance, south of the waste rock piles and the constructed trial wetland.

Drainage2 : The second settling pond drains to the south, creating a small creek that runs east into Christal Lake.

Stability: The eastern retaining wall has been recently resloped to increase stability. However, tension cracks in the eastern retaining wall were observed (photo 12-6). One crack (about 5 in in length) was oriented across the slope approximately 3m downslope from the settling ponds. Other cracks were seen along the edge of settling pond #2 and along the eastern edge of the resloped material. These cracks appear to be associated with the collapse of the soil adjacent to where the creek gully has formed. Tension cracks indicate the eastern retaining wall may be slumping.

Piping : A steel pipe 5m in length connects the two settling ponds. A collapsible, blue plastic pipe had been installed to direct the outflow of the water from settling pond number #2 to Christal Lake; however, only the **first** 10m of this pipe is currently in use, directing water flow to the creek gully. The remainder of the piping has been disconnected but remains in place.

Impacted vegetation: At the time of the site visit, the banks of the stream were stable and vegetation was healthy along the banks.



Photo 12-10: Blue piping heading to Christal Lake, stream gully roughly follows piping route. (Azimuth 100°)

FAITH (DUNCAN)

SITE #42

MINFILE# 105M 002

1. **LOCATION AND ACCESS**

The site is located on the southeast side of Keno Hill approximately 1km southeast of Caribou Ell summiit. The site occurs between 4650ft (1420m) and 4800ft (1460m) above sea level within the Faith Gulch headwaters. There are no roads that lead to the site, however the Beauvette Hill Trail following Lightning Creek to passes below the site roughly 400m to the east. A partially overgrown cat trail extends through the site along the ridgeline between the Beauvette Hill Trail and the Hope Gulch Trail roughly 1.7km to the west. The approximate LTTM co-ordinates are 7 089 900m N and 493 700m E.

2. **SITE PHYSIOGRAPHY**

Faith is located along a ridge paralleling Faith Gulch near the southeastern toe of Keno Hill. The site occurs at a break in slope that varies from roughly 10' above to over 20' below and faces north into Faith Gulch. The mine site is situated at treeline and is vegetated with stunted lodge pole pine, fir and black spruce trees, willows, grass lichen and moss. Surface runoff from the mine site drains to the north, into Faith Gulch, a tributary of the Keno

4. **SITE HISTORY**

Initially staked in 1919, the site had limited underground development totaling 25.6m, including an 80' inclined shaft. In 1923, 11.8 tonnes of hand cobbled ore was shipped from the site. A total of 3 bulldozer trenches and various road cuts were completed on the site in 1989.

Public Works and Government Services Canada (PWGSC) conducted a phase H assessment of the Faith site in 1996.

MINE DEVELOPMENT

There is one shaft, three trenches and associated waste rock piles. No ore was processed at the site and no tailings were encountered.

There is no waste water treatment facility at this site.

Mine Openings and Excavations

Faith Shaft (Figure 1; Photo 42-1)

The shaft is located at the eastern end of the site, roughly 100m south of Faith Gulch. The shaft is inclined at 80' to the south.

Dimensions: 2m x 2m, extending 1 m above ground.

Supports: The collar is supported by timber cribbing and clad with vertical wooden poles.

Condition: The ground around the shaft appears stable.

Accessibility: The shaft is blocked 3m below the collar by collapsed rock and cannot be accessed beyond that point.



Photo 42-1 : Faith. Faith timber shaft cover building (Building 42-B). (Azimuth 200°)

Elsa Mine -Minfile#105M 001A



Photo 3-1 : Elsa Mine. Elsa 400 Level Portal. Looking southeast. Low grade open pit ore pile to the right of the tracks.



Photo 3-4 : Elsa Mine. Elsa 200 Level Portal. Looking south.

Powderhouse Corner Vent Raise

Description: A vent raise that has been backfilled is subsiding. A hole is present, with minor pipe and timber indicating mine association.

Location: The raise is about 5m from Calumet Drive, at a switchback corner known as powderhouse corner.

Dimensions (L x W x H): A pit about 10m by 10m wide and 5m deep is present.

Supports: Unknown.

Condition: Appears to be unstable.

Accessibility: Easy access from Calumet Drive.



DUBLIN GULCH - STEWART & CATTO

SITE #91

(MINFILE #106D 025d)

1. LOCATION AND ACCESS

Coordinates 64-02-00 N, 135-47-00 W. Located along Olive Gulch and a ridge straddling this gulch and Stewart Gulch (approximately 1 km due southwest) 800 km from its confluence with Dublin Gulch. Elevation approximately 3800-4000 feet asl. Access to the site is via the South McQuesten Highway (from Highway 11, Silver Trail) to Haggart Creek Road, 200 m southeast off Dublin Gulch Road along the Olive Gulch access road.

2. SITE PHYSIOGRAPHY

The site is located along the northeast side of a relatively-dry ridge leading into Olive Gulch. A small semi-subterranean creek runs down into the gulch under large boulders from the southeast (Photo 91-1), daylighting alongside a small placer mining camp along the site access road (see Photo 91-7). The stream splits into two channels at a small placer campsite located there with one of the forks following into a dugout trench while the other follows the Olive Gulch access road to the northwest. The stream drainage beyond this point has been altered by overburden from placer activities and trenching, resulting in flooding and wet, soggy conditions along Olive Gulch access road (Photo 91-2). This gulch eventually drains into Dublin Gulch to the northwest. The presence of permafrost soils could not be ascertained; however, the sparse cover of smaller trees and the high elevation suggests the possibility of discontinuous permafrost (Photo 91-3).

4. SITE HISTORY (from original minfile)

Placer gold was discovered on Haggart Creek in 1895 and on Dublin Gulch in 1898. The first lode staking was Dublin Lode, North Star et. al. (2404) in October, 1901, on which a 14 m adit was driven by 1904. By 1912, development work had been done on five separate properties, including the Stewart-Catto group. On the Stewart Catto group (Happy Jack (8029)) and Victoria (8022) cl) recorded in jun.- Oct., 1908, two adits were driven, the first 38 m long and off the vein, and the second a 600 m crosscut with 23 m of drifting on the vein. T. McKay and A.H. Martin tied on Bob, Mucking Futch et. al. Cl (55056) to the Olive claim in November,

1937, and

prospected with pits and shallow shafts. In 1938, the claims were sold to Treadwell Yukon L, which performed more trenching. The property was transferred to Keno Mg CL in 1946. Restaked as Avoca, et al. Cl (59052) in October/48 by J.B. O'Neill and J.J. Colt, who explored with hand and bulldozer trenching in 1949-54, sold an interest in 1958 to E.H. Barker, who trenched in 1958-61 and sold the property to Peso Silver ML in 1962. Peso performed trenching in 1962. Restaked as part of the Pea, etc. cl (Y59052) in August/73 by Adonis ML in conjunction with nearby placer work.; Shal cl (Y95002) in July/74 by J.M. McNulty; Dog cl (Y97149) in Nov/74 by H. Fomme; Pup cl (YA15128) in May/77 by R. Grant; and Smoky, Bob, DG etc. cl (YA17729) in April/78 by Queenstake Res L & Canada Tungsten Mg Corp L, which conducted extensive mapping, and geochemical and geophysical surveys in 1978 and 1979, backhoe trenching in 1980 and geochem sampling and mapping in 1981. In 1986, Canada Tungsten transferred some of the Smoky and Bob claims to G. Dickson and the remainder to Queenstake, which performed bulldozer trenching and 705m of diamond drilling later that year. The property was optioned to Can Pro Dev L which performed additional diamond drilling later that year and trenched in 1989. Dickson's claims were transferred to Queenstake in April and May, 1991. H- 6000 Holdings optioned the property in 1991, and joint ventured it to Amax Gold Inc., which explored with mapping, geochemistry, geophysics and 16 diamond drill holes totalling 2500 m. In 1992, Amax explored with rotary percussion drilling which included 1,117.7m in on the R.D. 2 and 16, Bob 1, Smoky 64-65 and 74-76 claims and 2 holes on the Smoky 51-52 claims. The property was returned to Ivanhoe Goldfields Ltd. (a successor company of H-6000 Holdings) which conducted reverse-circulation drilling and backhoe trenching on the Smokey 3,4 and 96 Fr. Claims in 1993. In Aug/94 First Dynasty Mines Ltd. acquired Ivanhoe Goldfields Ltd. In Oct/94 Queenstake Resources Ltd. transferred its interest in the Mar, R & D, DG, Jeff, Bob and Smoky claims to First Dynasty. In 1995, First Dynasty and in 1996 its wholly owned subsidiary, New Millennium Ltd. carried out a major drilling program to outline a core resource/reserve on Eagle Zone (minfile occurrence # 106D 025). The companies also carried out diamond drilling on Potato Hills (minfile occurrence #106D 026) to test for mineralization under the proposed heap leach pad area. In Sept./95 Ivanhoe staked a series of fractional claims (Roni 1-13 - YB64630) in and around the Smokey claims.

5. MINE DEVELOPMENT

5.1. Mine Openings and Excavations

Adits/Shafts/Portals

One of the old adits developed between 1908 and 1914, "Victoria" was discovered along the upper access road winding up the northeast-facing slope of Olive Gulch. The opening was located 200m upslope and due southeast from the bottom of the gulch and approximately 80 m down from the top of the ridge. The adit opening was exposed and partially filled with rocks (Photo 91-4). Two drill-casing pipes were also noted sticking out of the ground above the adit at a 45 degree angle, possibly from old drilling activities or for shaft-venting.

Dimensions x W x if): -83 m x 1.5 m x 1.75 m)

Supports: No structural supports in place

Condition: Appears to be stable.

Access: 3 m from edge of upper access road leading up-slope from Olive Gulch to top of ridge.



Photo 91-4 : Stewart-Catto. Old 1914 mine adit along old access road to top of hill.

DRAGON (UN) & MILLER

Site No. 10

MINFILE: 105M 001-1

1. LOCATION AND ACCESS

The Dragon (UN) and Miller sites are located on the north slope of Galena Hill (Site 10 Figure 1).

The Dragon (UN) adit is on the Calumet Back Road at an elevation of 3900 feet (1189m). The Miller Pit is located south of the Dragon (UN) adit, at an elevation of approximately 4100 feet (1250m). The approximate UTM co-ordinates for this site are 7 088 800m N and 481 500m E.

Access to the UN adit is along the Calumet Back Road 5.0 km from the Duncan Creek Road. The portal is 10 m south of the road. The turn-off to the Miller Pit is located further along the road, 1 km past the UN adit. The turn-off cuts east-southeast to the pit, then continues on up the slope to the "C" structure of the Hector-Calumet mine.

4. SITE HISTORY

Activity on the site began before 1926, when three shafts were excavated in the Miller area to depths of 6.1 m, 7.3 m and 12.8 m (minfile report). A few small open cuts were excavated at this time. In the 1950's the UN adit was excavated to 122m with another 152 m of underground development off of the adit. This development produced 2,900 tonnes of waste. In 1981 and 1985 the Miller open pit was excavated and 57,150 tonnes of waste produced.

Total production for the site is recorded at 8,519 tonnes grading 468 g/t silver, 2.2% lead, and 0.7% zinc, all having been produced from the Miller area. Apparently, the UN adit never produced ore.

5. MINE DEVELOPMENT

Total mine development includes three shafts, one adit and one pit. The shafts appear to have been destroyed during the excavation of the pit. Details of the pit and adit are shown on Figure 2.

5.1 Mine Openings and Excavations

Dragon (UN) Adit

The UN portal is 2 m high and constructed with wood beams (Photo 10-2). The adit has a wooden door to the adit was open at the time of the site visit. The adit is blocked by ice that extends to the sides of the adit, and comes to within 20 cm of the roof. The ice block is reportedly present year round, but has never fully blocked the water flow.



Photo 10-2. UN portal showing wooden debris and open door.

Dixie #4- Minfile105M 001B



Photo 4-2: Collapsed structure above raise. The raise is located at the intersection of the powerline and roadway approximately 500m above the main Dixie site. (Azimuth 95⁰)

Dixie Shaft (Photo 4-2)

The shafthouse (4 m x 5 m) is wood frame construction and has collapsed. The shaft dimensions are 1.2 m x 2 m, the lagging has partially collapsed and the shaft appears to be filled with water and soil -3 m below ground level.

THIS SITE SHOULD BE CONSIDERED A HAZARDOUS AREA.

Coral Wigwam 5- Minfile#105M 001C

1. LOCATION AND ACCESS

Access to the site is from the Elsa Townsite at the junction of Calumet Drive and Wernecke Road travel 6.9 Km. along Calumet Drive to the Hector Portal, switchback to the right (S. W.) and follow the Birmingham Rd. for 2.8 Km. At this point, a rough cat trail leads N.W. for 100 meters to the Coral-Wigwam Site. The Coral Wigwam mine site is at an approximate elevation of 1200m. UTM co ordinates are 7,086,250m N 477,900m E.

4. SITE HISTORY

Staked in 1921, by 1924 three shafts (one -8 m deep with a drift and crosscut off it) had been developed and approximately 7 tonnes of ore shipped. In the 1950's minor bulldozer trenching was done. In the 1980's the area was stripped and seven shallow (1-2 m) backhoe trenches dug and drilled with a percussion drill.

Shaft 1

Location : Western shaft

Dimensions: The inside dimensions are 1.6m x 1m about 8m deep with what appears to be a drift taking off in a SE direction.

Supports: The shaft is cribbed with round timber that appears sound.

Condition: The shaft is open and unguarded and should be considered a safety hazard. The dump from shaft has been bulldozed away during the stripping operation.

Accessibility: The shaft is open and accessible.

Shaft 2

Location: Eastern Shaft

Dimensions: Subsidence zone is about 5 m in diameter and 3 m deep.

Supports: The shaft is unguarded and poses a safety hazard.

Condition: This shaft is collapsed with timber with an old ladder in the hole. The waste rock dump dimensions are 15 m x 3 m x 6 m (- 600 tonnes) consisting of Quartzite with quartz veining and minor pyrite.

Accessibility: The shaft is collapsed and is a safety hazard.

CARIBOU and ALICE

SITE #39

MINFILE# 105M 001ax, aw (105M 062)

1. LOCATION AND ACCESS

The main Caribou showing is approximately 250m southwest of the Caribou Hill summit. The Alice showing is located in the steep walled cirque immediately west of Caribou Hill summit. Access is by the 5.5 km Hope Gulch Trail (possibly suitable for 4x4 vehicles) which leaves the Lightning Creek Road near the mouth of Hope Gulch. The approximate UTM co-ordinates are 7 090 700 m N and 492 900m E (Latitude: 63' 56'40" N and Longitude: 135' 08'54" W).

2. SITE PHYSIOGRAPHY

The site is located on a moderate southwest-facing slope, at an elevation of 5800ft (1770m). The site is well above tree line, in alpine tundra terrain with characteristic thin soils, talus, grass and moss. Surface runoff from the site drains 700m to the south into Faith Gulch, a tributary of the Keno Ladue River. Given the elevation and the presence of frost heaved bedrock, the site is presumably underlain by permafrost.

4. SITE HISTORY

Between 1920 and 1928 a 13.7m adit and, 40.2m of drifting were excavated. During this period, 78.9 tonnes of ore grading 6103 g/t silver and 70% lead was hand mined and shipped from the Caribou Showing. In 1952, a second adit, 8.2m in length, and some bulldozer trenching were excavated. Further bulldozer trenching on a vein was undertaken in 1986.

5. MINE DEVELOPMENT

The Alice adit could not be located. It has probably collapsed and been buried by slide rock from the steep walled cirque. Bulldozer trenching at the Caribou showing and the Caribou Adit were examined. No ore was processed at the site and no tailings were encountered. There is no mine wastewater treatment facility at this site.

Mine Openings and Excavations

Caribou Adit (photo 39-1)

Surface stripping has exposed part of the adit, at least 10m from the portal. The support structure at the portal of the adit has likely been buried by the bulldozer trenching. The dimensions of the adit could not be determined. There is no evidence of the adit collapsing, however it is difficult to determine since the area around the adit has been extensively worked. The adit cannot be accessed.



Photo 39-1 : Caribou. Caribou adit; portal exposed by bedrock stripping. (Azimuth 080 °)

BLACK CAP, SHEPHERD AND LUCKY QUEEN ADITS

SITE# 25

MINFILE# 105MOOlac

LOCATION AND ACCESS

This site includes three separate mine workings: the Black Cap open pit and adit, the Shepherd adit (also known as the Brewis Red Lake adit) and the Lucky Queen adit. The Black Cap, Shepherd and Lucky Queen (BSLQ) sites are situated within 450 metres of each other with Black Cap to the northeast and Shepherd in the southwest. They are all located on the western slopes of Keno Hill roughly a kilometre north of Erickson Gulch between elevations 1,360m and 1,480m (Figure 25-1; Photos 25-1, 25-2).

SITE LOCATIONS

	<u>UTM Northin</u>	<u>UTM Easting</u>	<u>Elevation</u>
Black Cap Pit	7,091,675m	486,950m	1,430m
Black Cap Adit	7,091,510m	486,910m	1,430m
Shepherd	7,091,310m	486,825m	1,375m
Lucky Queen	7,091,475m	486,750m	1,370m

A two-wheel drive road provides access to all three sites. The Black Cap road turns southeast off the Wemecke Road at 3.8km from Keno Hill town site. The road switchbacks once before reaching the Lucky Queen adit at 2.7km, the Shepherd adit at 3.9km and the Black Cap pit at 4.3km. The road is impassable past the Black Cap workings. A locked gate restricts larger vehicle access at the start of the Black Cap Road, although ATVs can easily get by (Photo 25-3).

4. SITE HISTORY

Work on the site dates to before 1950 when a shaft was sunk on Black Cap. Between 1950 and 1952, the 6m winze and the 280m Brewis Red Lake adit were developed at Shepherd. Approximately 340m of drifting was completed on the Black Cap in 1967. Total production at the site is 44,068 tonnes grading 939 gtt silver, 1.61% lead and 0.28% zinc.

5. MINE DEVELOPMENT

There are two adits, one at Lucky Queen and one at Black Cap. The Shepherd was located roughly 180m southwest of the Lucky Queen Adit, however the site has been bulldozed level and no evidence of the adit or associated waste rock piles are apparent. The area was not investigated. There are two open pits at Black Cap; the North Black Cap Pit and the South Black Cap Pit. Five waste rock piles are associated with these excavations.

Mine development includes the Blackcap Road. The upper switchback of the Blackcap Road extends roughly 800 across the slope below the Lucky Queen Adit. There are no water bars or culverts to divert the ditch water back to the slope below the road. During spring runoff the ditch water runs off the end of the middle switchback into Erickson Gulch where poor slope stability and the excess runoff have caused minor slope failures.

Black Cap Adit (photo 25-6)

The entrance to the adit is located roughly 100m south of the south end of the North Black Cap Pit. The opening measures about 2m high by 2.5m wide and is supported by timbers. No collapses were visible in the first 50m. The adit is filled with approximately 40cm of standing water making further investigation of the adit impractical. A gravel berm located outside of the portal was built to damn mine drainage; however, water is seeping through the berm and a large puddle has formed on the other side. Water flowing from the puddle continues down the road for at least 50m before seeping back into the ground.



Photo 25-8: Interior of portal. Note drainage ditch to bottom left and partially collapsed door. Azimuth 060°)

BERMINGHAM (# 6)

(MINFILE# 105M 001,d,c)

1. LOCATION AND ACCESS

The Bermingham mine site is located near the summit of Galena Hill, approximately 1.5 km southwest of the Calumet town site at an elevation of approximately 1100m. Access to the mine is by gravel road from Calumet. The site is at latitude 63' 54' 35"N and longitude 135' 25' 53". UTM co ordinates are 7 086 77m N 474 740m E.

2. SITE PHYSIOGRAPHY

The Bermingham mine site is located facing east over the McQuesten Valley. The site consists of two areas of mining, Bermingham pit and the Bermingham adit. There are two large pits located at the Bermingham pit as well as 6 smaller trenches that have been excavated. The Ruby shaft is located just below the Bermingham pit and is part of this report. The Ruby adit site is documented in another report.

3. SITE HISTORY

From 1925 to 1941 there were approximately 2720 tonnes of ore mined from several shafts, drifts and crosscuts. Between 1948 and 1951 The Bermingham 200 level crosscut adit was constructed measuring approximately 300m in length and has a portal dump of 6350 tonnes. From 1977 to 1979 the Bermingham and the Bermingham Southwest pits were mined and produced a 1,360,000 tonne waste dump. The Bermingham mine site has the largest open pit in the study area.



Photo 6-2 : Ruby Shaft. South portion of shaft house over opening has collapsed.



Photo 6-5 : Bermingham Adit.

Building 6A - Ruby Shafthouse (photo 6-2)

The building is a shafthouse that has partially collapsed over the shaft.

Location :

Dimensions (L x W x H): 15m x 6m x 2m

Construction: The structure is of wood frame construction with metal sheathing on exterior walls and roof. The floor and walls are constructed of wood planks and the shaft area is reinforced with timber.

Paint: No paint was noted on exterior or interior of shafthouse.

Asbestos: No asbestos was noted at the structure

Foundation: Timber above grade.

Non-Hazardous Contents: No non-hazardous contents were found.

Hazardous Contents: There were two barrels with lubricant labels, however, it is not known if the barrels contained any product **AS THE BUILDING HAS BECOME A SAFETY HAZARD AND WAS NOT ENTERED DURING THE SITE 'INVESTIGATION.** Some rags stored in pails appeared to be stained with hydrocarbon product.



Photo 6-9 : Birmingham Adit, Portal at Birmingham Adit. (Azimuth 170 °)

Building 6G - Adit

Portal structure.

Location: **Listed as building 6G on the Birmingham Adit site map.**

Dimensions: **(L x W x H):**

Construction: **Timber and wood structure.**

Paint: **There was no paint noted on the exterior.**

Asbestos: **There was no asbestos noted on the exterior.**

Foundation: **No foundation.**

Non-Hazardous Contents: **There were no non-hazardous**

NOTE:THE STRUCTURE HAS DETERIORATED TO THE POINT THAT IT HAS BECOME A SAFETY HAZARD. IT APPEARS THAT THE SHAFT HAS COLLAPSED INTO ITSELF AND THERE ARE DANGER SIGNS POSTED ON THE WOODEN DOORS.



Photo 6-15 : Ruby 400. Adit structure with rail tracks extending from the structure and utilidor on right..

APEX (#48)
MINFILE# 105M 009

1. LOCATION AND ACCESS

Access to the Apex site is from Signpost Road. A small cabin (Building 48A) is located approximately 250 m south of the 4th switchback past the intersection of Signpost Road and Keno 700 Road. The coordinates of the cabin are approximately 601,55' 18" N by 1351,18'22" W. Six trenches are located to the west of the cabin. The UTM coordinates of the site are approximately 7088920 m N 488640 m E. The elevation of the site is approximately 1465 m.

2. SITE PHYSIOGRAPHY

The Apex site is located on a flattened ridge on the south slope of Keno Hill, west of Charity Gulch. The site lies above the tree line in an area dominated by typical alpine vegetation. The surface water in the area drains toward Lightening Creek.

4. SITE HISTORY

Only 1 shaft was observed at the site. The minfile reports that 2 shafts, a 10.6 m adit and a 5.5 ffi winze were developed at the Apex site between 1925 and 1936, however, the second shaft could not be located.

5. MINE DEVELOPMENT

5.1 Mine Openings And Excavations

There were 6 trenches observed at the Apex site running parallel to each other. They are located to the west of Building 48A. A shaft was observed in Trench 3.

Shaft I (photo 48-2)

Old shaft filled in to within 5 m of surface

Location: in the bottom of Trench 3 (see description of Trench 3 below), 58 m from the waste rock dump at the south end of the trench

Dimensions (L x VI): 2 m x 1.5 m

Condition: poor - caved in 5 m below surface

Accessibility: open



Photo 48-2: View of Shaft 1 in Trench 3 at Apex site. (AZ 132)