

**Yukon Ditch :
Klondike Syphon
to Bonanza Creek**



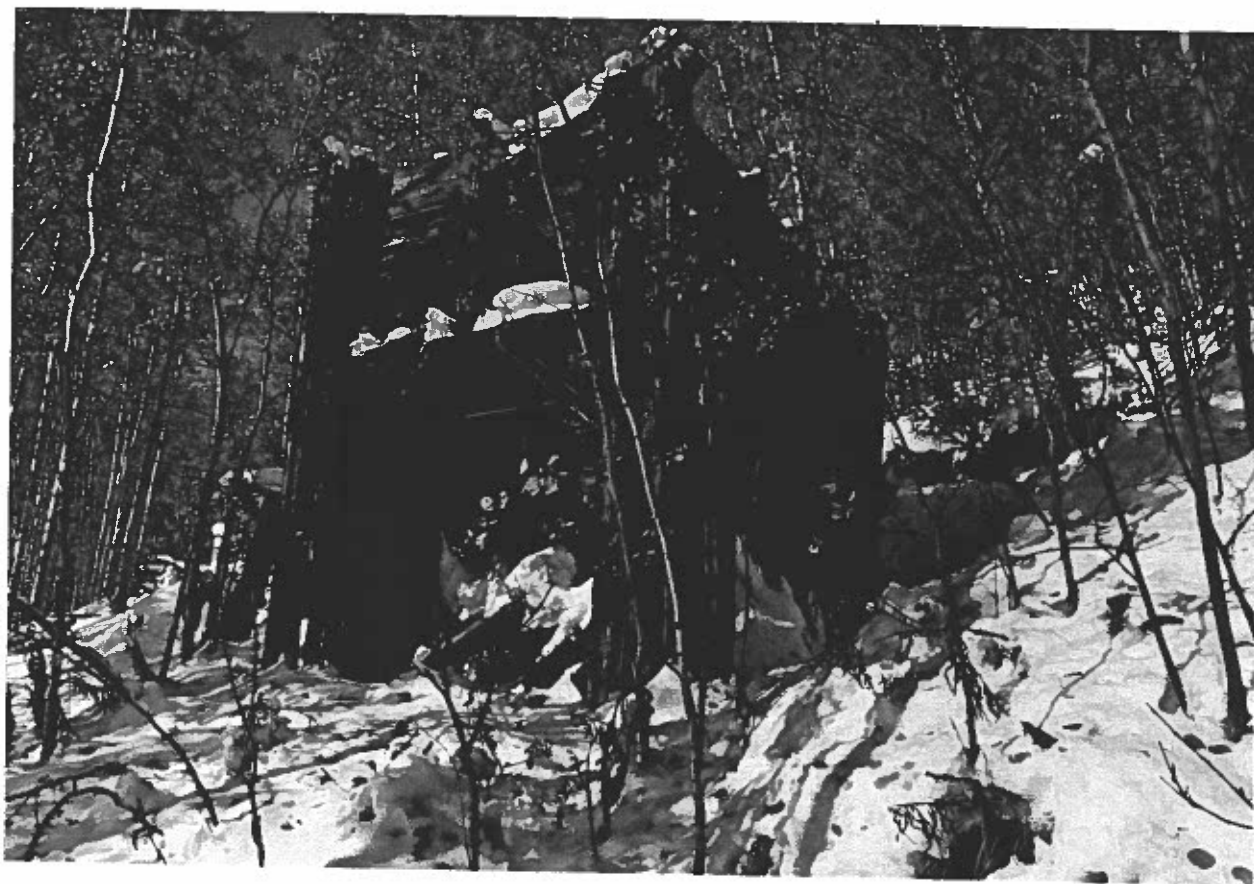
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YUKON DITCH

KLONDIKE SYPHON TO BONANZA CREEK

Preliminary Survey and Field Recording Project

Dawson City Museum and Historical Society



**Barbara Hogan and Gregory Skuce
June, 1993**

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THE DAWSON CITY MUSEUM AND HISTORICAL SOCIETY

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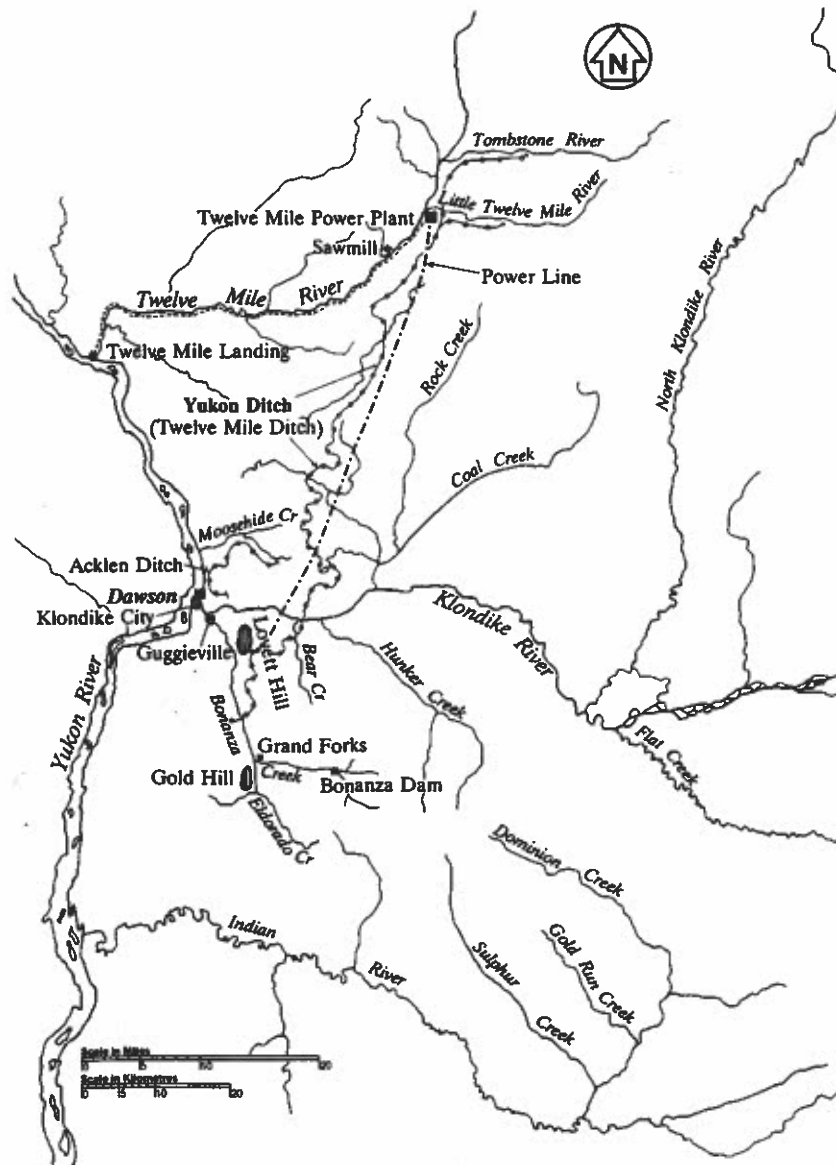


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HISTORICAL OVERVIEW

The Yukon Ditch, or the Twelve Mile Ditch, as it was commonly called, was one of many many large industrial projects undertaken in the Klondike after the Gold Rush. It had become apparent that hand-mining on single claims was inefficient and many miners had already left. Huge concessions, or groupings of claims, were granted to companies using modern industrial mining methods such as dredging and hydraulicking. Power was required to operate the electrically driven dredges and vast amounts of water necessary to wash the gold from the hills above Bonanza Creek. A.N.C. Treadgold, a mining promoter who was originally a journalist from England, realized that water from the Ogilvie Mountains could be used to provide both power and water. He devised a plan to bring water a distance of seventy miles from the Tombstone River using a system of ditch, flume and pipe. The Little Twelve Mile River would provide water to generate power.

Backed by the Guggenheims from New York, the Yukon Gold Company was formed and construction began on the Yukon Ditch in 1906.¹ The Yukon Gold Company was also building seven dredges in order to mine the creek bottoms before they became covered by tailings from the hydraulic mining.² Diverting water from the Little Twelve Mile River in the Ogilvie Mountains, Yukon Gold Company built a hydro-electric plant that transmitted power to the awaiting dredges by May of 1907.³

Construction continued on the Yukon Ditch. All building supplies and provisions had to arrive on or before the last steamer of the season reached Twelve Mile Landing. Redwood for the woodstave pipe was imported from California and steel for the syphons from as far as Germany and Pittsburgh.⁴ A sawmill was constructed on the Twelve Mile River to provide milled lumber for the flumes and maintenance camps. Supplies were freighted in over the winter months when the ground was frozen.⁵ Fighting permafrost, mosquitos and bog, construction was completed as far as Lovett Gulch and water flowed in the Yukon Ditch by June of 1909.⁶ The ditch was extended six miles further up Bonanza Creek later

¹Green, Lewis. The Gold Hustlers. Anchorage: Northwest Alaska Publishing Co. 1977. p. 94

²Yukon Gold Company. An Abridged History with Illustrations of the Operations of the Yukon Gold Company. Philadelphia: Ferris and Leach, June, 1911. p.8,9

³Green, Lewis. The Gold Hustlers, p.103

⁴ Rickard, T. A. " The Yukon Ditch." Mining and Scientific Press. San Francisco, California, Jan. 16, 1909. p.14,17

⁵ Green, Lewis. The Gold Hustlers, p.100

⁶Rickard, T.A. The Yukon Ditch. p.18

that year.⁷

Maintenance camps were situated every 10 to 12 miles with crews of two to ten workers in each camp.⁸ These employees or "ditchwalkers" as they were called checked water levels, jacked and levelled the flume and repaired any leaks in the pipe or inverted syphons. The inverted syphons were used when steep valleys were crossed.⁹ Little elevation was lost using this technique and the water levels remained constant. Pressure boxes were located at the intake of the syphons ensuring constant water pressure in the pipe, allowing gravity and volume to push the water up the other side of the valley. Pressure boxes were also located on the discharge end of the pipe to convert back to flume, or ditching, if possible. Pipe was the most costly method of transporting the water, then flume, and ditching the most economical. The flume, constructed of local spruce, was 6 feet wide, four feet deep and had a gradient of fourteen feet per mile. The ditch was dug by six steam shovels, and hand finished by horse drawn slip scrapers and hand shovels. Moss and mud lined the interior of the ditch to help prevent seepage. The ditch was nine feet wide, three feet deep and had an average gradient of six feet per mile.

The Yukon Ditch operated from 1909 to 1933. By 1933 much of the local spruce used for trestles, flumes and pilings had deteriorated to the point that the aquaduct only carried one fifth of it's original capacity.¹⁰ It was decided that the cost of the necessary repairs would not justify the small returns from the hydraulic operations, and the Yukon Ditch was closed.¹¹

The Dawson City Museum has been researching and documenting the Yukon Ditch for the past three years. This year the section from the Klondike Crossing to Bonanza Creek was completed. The majority of maintenance camps have been photographed and recorded as have the major engineering features and artifacts. A sound/slide show exhibit, a photographic interpretive exhibit, and a slide show/lecture on the history and remains of the Yukon Ditch, have been presented a number of times over the past two years. The following is a report on the findings of the field recording project accomplished by June of 1993.

⁷Yukon Gold Company. An Abridged History, p.8

⁸ Klondike National Historic Sites, Dawson, Y.T. Microfilm: Plans and Blueprints; #2.A17.2: Map of Yukon Ditch.

⁹Rickard, T.A., The Yukon Ditch. p.1-8

¹⁰ Green, Lewis. The Gold Hustlers. p.276

¹¹ Bostock, H.S. The Mining Industry of the Yukon. Annual Report. Ottawa: King's Printer, 1933.

METHODOLOGY OF FIELD RECORDING

A considerable amount of preliminary research is completed before conducting any fieldwork. A general knowledge of the history of each project is important. Historic and contemporary maps and photographs help determine the location of possible sites. Oral histories, books, diaries and other resource material are used to help define the function of the sites. The availability of modern routes and the best means of transportation to each site are decided after consulting with local individuals living in the areas concerned.

Upon arrival at each site a map is made of the orientation of the buildings and structures, engineering features, surface modifications and natural forms. Colour slides and black and white photographs are taken of each elevation of every building, feature or artifact. An overall view is also done if feasible. Interior photographs using flash or natural light become part of the photographic record where possible. When recording each site, the resources are labelled as a building, a feature, or an artifact. A building is a structure or any part of a structure. A feature is a man made item, ie. an old foundation, a spillway, or a railbed. Artifacts are the objects found on site that appear to be relevant to the time period being recorded.

Buildings and features have each side measured from corner to corner and the distances from each other noted. All measurements are in meters and are rounded off to the closest centimetre. Condition of the walls, roof, and foundation is noted. Some features are difficult to determine, depending on the age and the amount of traffic through the area. If this is the case, a site is defined only when research and the existence of related artifacts or buildings substantiates the evidence found. A five hundred meter perimeter around each site is inspected to ensure that all the information pertaining to the site is documented.

The information is then transcribed to Dawson City Museum Field Recording Forms. These forms list site names, site numbers, locations, U.T.M., Latitude/Longitude, land status, ownership, buildings, features, artifacts, and research notes. Each site is marked on national topographic maps. Diagrams are drawn to scale showing the location of the buildings, features, and artifacts. The photographic images are assigned unique numbers and record forms are compiled for each roll of film, listing location, description, and direction of each view.

The methodology employed concurs with the Government of Yukon's Historic Site Inventory Program.

The finished site forms, maps, photographs and record sheets are compiled in a report which is available at the Dawson City Museum, Heritage Branch - Government of the Yukon, and the National Archives.

SITE LISTINGS AND DESCRIPTIONS

Please see previous reports; Yukon Ditch Field Recording Reports, 1991 and 1992 at Yukon Territorial Government, Heritage Branch, for site listings numbered one to fourteen.

Site Fifteen: Bonanza Discharge

Feature One: Pilings from pipe support system. Fair condition, piling built up to support pipe crossing the Bonanza Valley. Some of the pilings were cribbed and filled with rock.

Feature Two: Remains of a pressure box where the pipe converts to ditch. Only visible remains are footings and loose boards scattered on the ground. Poor condition.

Site Sixteen: Coffey's Office

Building One: Coffey's office, log cabin in good condition. Pole and tin roof, most of tin missing. Walls saddle notched log, interior planked. Foundation sill logs rotting, floor heaved. Believed to have been G. Coffey's office, superintendant of hydraulic operations. Artifacts recorded, wheel barrow, hammers, bolts, cookstoves, heater, pencil sharpener beside building. Ventilator and chimney safety in roof.

Site Seventeen: Bonanza Intake

Building One: Collapsed post and beam shed. Walls are board or plank and collapsed, roof, windows, doors missing. Artifacts recorded, stove pipe, enamel pail, sheet metal, large bolts. Located in close proximity to the ditch.

Feature One: Wasteway or spillway. Frame construction and excavated earth. Poor condition, boards scattered and rotten, earthen banks sloughing.

Feature Two: Pressure box and flume. Fair condition, front of box is cut out, flume is collapsed and rotten.

Site Eighteen: Mosquito Discharge

Feature One: Pressure box and flume in good condition. Board and batten on pressure box and flume. Artifacts recorded, metal bands from wood stave pipe. Pipe is missing.

Site Nineteen: Mosquito Intake

Feature One: Sandbox or settling box. Board and batten in good condition, some boards fallen and rotten. Series of gates on downhill side used to clean out debris and dirt that had

SITE LISTINGS AND DESCRIPTIONS (continued)

Feature Two: Wasteway or diversion. Poor condition, partially collapsed. Board and batten.

Feature Three: Pressure box, fair condition. Board and batten painted red. Notched beams on top holding box together. Flume entering from the back, pipe missing in the front.

Site Twenty: Trail Gulch Intake

Building One: Lunchroom/workshop/tool shed, poor condition. Frame construction from local spruce 1" X 6" boards. Roof fallen in. Items of domestic use include shelves, cupboards, stove, candleholder, sawhorses. Located in close proximity to ditch and diversion.

Feature One: Water diversion and wasteway, poor condition. Board, batten and timber construction of spruce. Wasteway consists of a flume 45m. long to direct excess water away from diversion and pressure box. There are gates made from planks with hand carved handles that are inserted into corresponding racks at an angle to the water flow.

Feature Two: Pressure box, fair condition. Board and batten construction with flume entering from the back and pipe missing in front.

Artifact One: Rocking chair, fair condition. Handmade from packing crates with carved runners.

Site Twenty-One: Quigley Gulch Discharge

Feature One: Pressure Box, fair condition. Board, batten and timber construction with flume entering from the rear and pipe missing in front.

Feature Two: Wasteway or diversion, poor condition. Board and batten construction. Used as a simple overflow for excess water in system.

Site Twenty-Two: Klondike Crossing

Feature One: Bridge, good condition. Steel bridge made from I beam, angle and flat iron rivetted together and tightened with turnbuckles on steel rods. Supported pipeline for Yukon Ditch and traffic (horses and narrow motor vehicles) to other side of Klondike R.

Feature Two: Pier or bridge support, fair condition. Constructed from mortised timbers and clad with steel in a pointed shape in order to deflect driftwood and ice flowing down Klondike River (this was the main channel at the time).

SITE LISTINGS AND DESCRIPTIONS (continued)

Feature Three: Pipe, very good condition. Imported from Germany, 11/16" thick in order to withstand high water pressure at the lowest point in the inverted syphon.

Site Twenty-Three: Klondike Syphon Intake

Building One: Cabin, fair condition. One room with attached shed for tool storage, built from framed spruce planks with a tin roof. Used by one or two men to maintain water levels and carry out repairs on the system. Artifacts noted include chairs, tables, bed frames, enameled dishware, telephone, cookstove, heater, lanterns, sawblades, grub-hoes, pick-axes, and wrenches.

Feature One: Collapsed building, poor condition. Frame construction, probably used as a bunkhouse for extra workers during construction of the syphon.

Feature Two: Garbage dump, fair condition. Mostly tin cans, bottles, and broken tools and domestic items.

Feature Three: Box, poor condition. Timber and frame construction for collecting water from the ditch and diverting it to the pressure box, allowing for some settling of silt and debris to minimize wear of the pipeline.

Feature Four: Wasteway or diversion, poor condition. Board and batten construction designed to carry excess water away from footings of pressure box and pipeline. System could allow all water to be diverted through a gate into wasteway, thereby allowing repairs to be carried out on syphon.

Feature Five: Pressure box, fair condition. Timber and frame milled from local spruce. Used to contain water at an adequate level before entering pipeline-reinforced with steel rods to withstand water pressure.

Feature Six: Penstock, fair condition. Redwood planks tapered from the top and bound with steel rods that could be tightened as the planks shrunk. Used to direct the flow of water from the pressure box to the steel pipe partway down the syphon.

Feature Seven: Tracks from tramline, fair condition. Steel rails made from light gauge steel used during construction of syphon to carry sections of pipe up the hill and position it. The tram was probably powered by an electric motor and used during regular operations of the ditch for transporting supplies.

Artifact One: Cistern, good condition. Section of pipe covered at one end with planks-may have been used to contain water for domestic purposes.

SITE LISTINGS AND DESCRIPTIONS (continued)

Artifact Two: Trough, good condition. Built from planks in board and batten style to contain water, likely for horses.

Artifact Three: Forge, fair condition. Steel with hand-cranked bellows used for heating metal to melting point for welding, shaping horseshoes, and sharpening digging tools.

CONCLUSIONS

The preliminary research and field recording of the section of the Yukon Ditch from the Klondike Crossing to Bonanza Creek has been successfully completed. The ditch line itself, because it is found at such a high elevation (640m.), remains relatively undisturbed from placer mining activities. However, where the syphons cross valleys in the Bonanza area, the woodstave and steel sections of pipe have long since been salvaged. Some of the redwood pipe was used for a swimming pool in Dawson and the steel pipe from the Klondike Syphon was used for a utilidore at the townsite of Clinton Creek. Segments of the pipe have been capped at either end and used for fuel storage.

Several of the engineering features, such as the pressure boxes, sand boxes, and wasteways are still in fair condition, although quite overgrown. The flume sections are rotten and collapsed but the size and direction of travel is still discernible. Along this section of ditchline are found some single, small, frame cabins at the intakes. These are probably lunchrooms and/or workshops, visited daily by workers from the nearby hydraulic mining camps on Bonanza Creek to adjust water levels or carry out repairs. During the time the Yukon Ditch operated this area was more easily accessible than the northern end, thereby diminishing the need for large maintenance camps.

One of these smaller camps is found at the Trail Gulch Intake and remains in fair condition. The pressure box is still standing and the spillways are obvious, controlled by a system of individual planks with carved handles that are used for gates to control water level and direction. At this site is a frame cabin also in fair condition.

An intact section of the Klondike Syphon is located within the Klondike National Historic Sites compound at Bear Creek. The steel bridge and pipeline here is complete and in good condition, having been stabilized with additional supports by Parks Canada. Apart from one section spanning a slough, the rest of the bridge is on high ground now that the main channel of the Klondike River has changed to the other side of the valley due to extensive dredging. The intake of the Klondike Syphon is in good condition, complete with a watchman's cabin, but the pressure box on the discharge end of the pipeline is gone and the rest of the wood-stave and steel pipe has been salvaged.

Due to the early snowfall (September 10) and adverse weather conditions in 1992 the field work on three of the sites was delayed until better weather in June of 1993. All of the objectives of the project were achieved and the field-recording of the southern section of the Yukon Ditch went very well.

RECOMMENDATIONS

The Dawson City Museum has been involved in field recording and research on the Yukon Ditch Project for the past three years. During this time it has become a centre for information and material associated with the project and there has been a continual flow of photographs and archival material due to the growing interest of the public. The Dawson Museum will use this knowledge to offer a better interpretation of the Yukon Ditch than is currently available.

With the advent of more visitors coming to the Klondike during the next few summers, it is important that the artifacts at the more accessible sites be collected until such time as they could be used in an interpretive display. Some of these sites are on routes that are being used more and more by recreational vehicles, horseback riders and hikers.

The Trail Gulch Intake would be an excellent site for future interpretation, being fairly accessible and containing examples of many of the engineering features used on the Yukon Ditch. With this in mind, a more detailed extant photo-recording should take place, to facilitate some re-construction of the features.

Another site to be considered should be the Klondike Crossing, which is by far the most available to public access, and is the largest valley that the Yukon Ditch crossed. There is a considerable amount of archival material available on this crossing, including blueprints and engineer's drawings.

More research is required concerning the actual use of the water from the Yukon Ditch. There are unanswered questions about the hydraulic mining methods used to wash the hills above Bonanza Creek; how many workers were involved and their responsibilities, how and when did they move operations, and how was the sale of water measured and transacted. etc. More research and field work could be done in this area.

This field recording project of the Yukon Ditch between the Klondike River and Bonanza Creek is an important addition to the historical resources of the Dawson City Museum. It will prove to be an important tool in the preservation of the Yukon's history.

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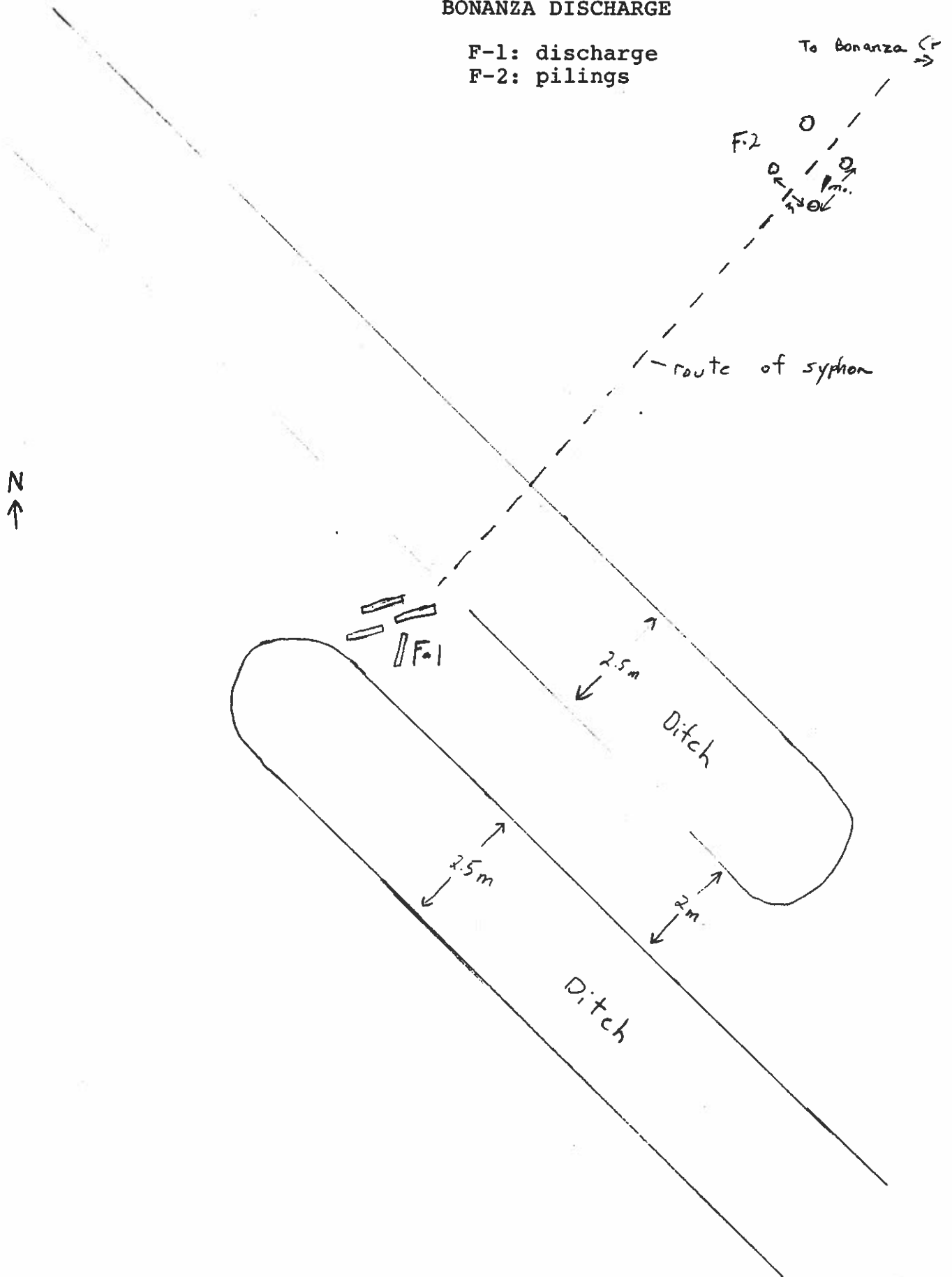
Whitehouse, Ed. Interview by B. Hogan and G. Skuce, December, 1992, tape recording at Dawson City Museum.

Yukon Archives; Research Files: Yukon Ditch, Yukon Consolidated Gold Corp. Clarence Craig Collection, Charles Henderson Collection. Photograph Collections; E. Forrest: 80/60, Ron Holway: 82/286, F. Sammons: 78/50, A.K. Schellinger: 82/308, Ed. Whitehouse: 87/93.

SITE 15

BONANZA DISCHARGE

F-1: discharge
F-2: pilings



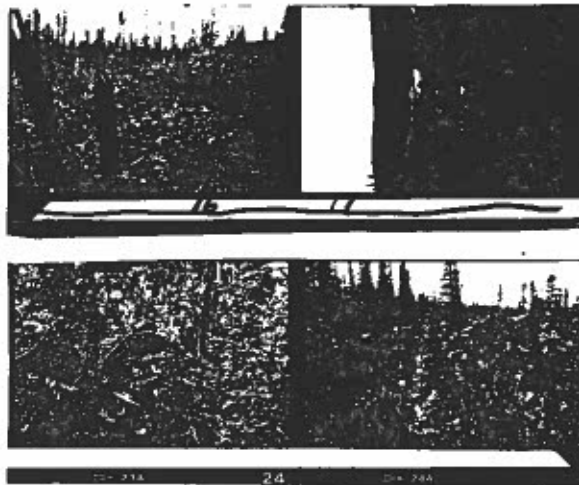


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. Skuce

Date Aug 21/92

Field Film #921.1

LOCATION

Site 15

BUILDING

Elevation/View

Frame
Number

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Bonanza Syphon

16

filings to support pipeline

"

17

across Bonanza from N.E.

18

19

20

21

22

23

Bonanza Discharge

24

remains of header box

"

25

N.W. along ditch

26

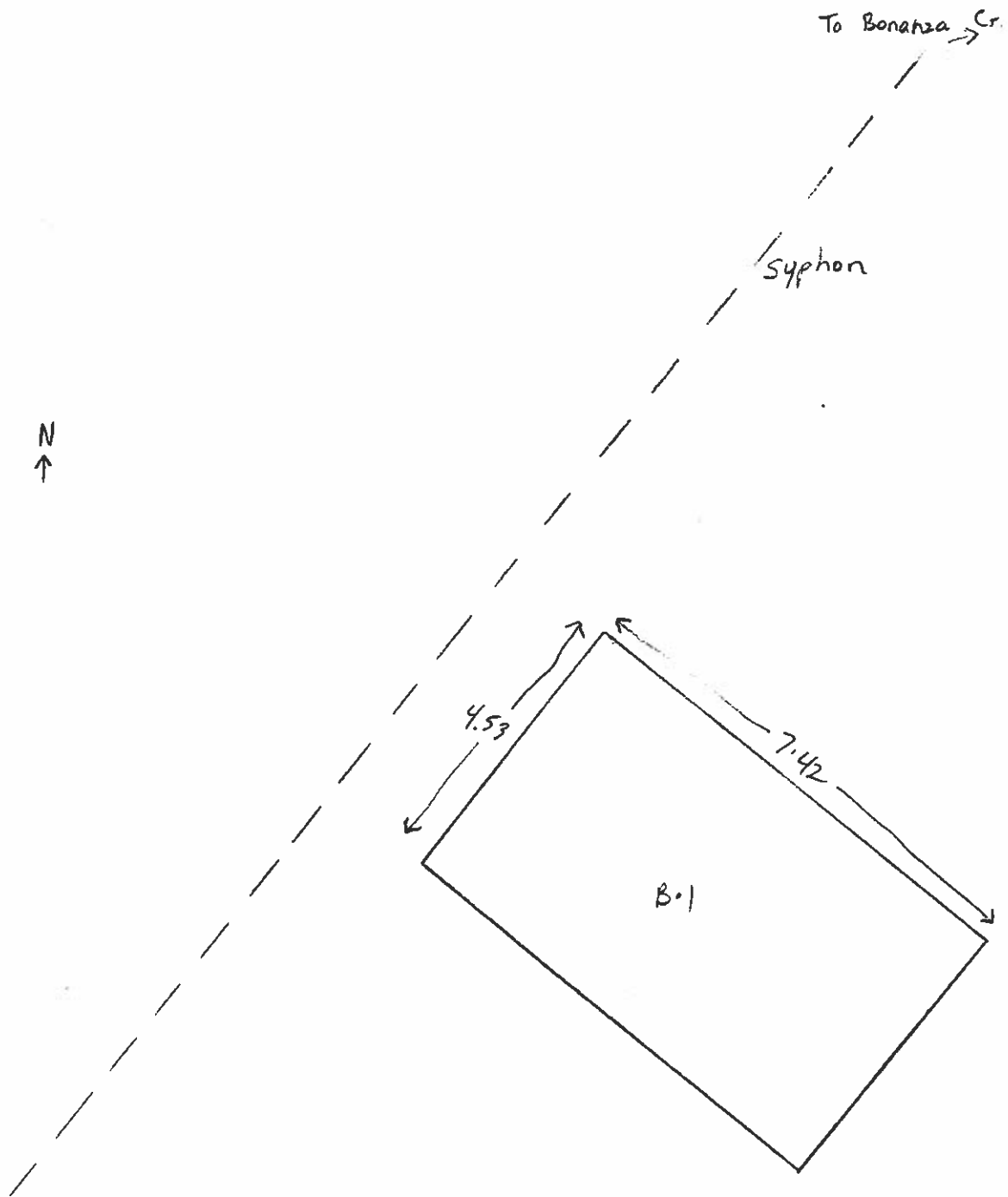
27

29

SITE 16

COFFEY'S OFFICE

B-1: cabin



SITE 16

COFFEY'S OFFICE

Roll# 921- 1



PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. STUCE

Date Aug 31/42

Field Film # 921-1

LOCATION Site 16

BUILDING

Elevation/View

Frame
Number

0

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3

4

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6

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12

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14

15

16

17

18

Coffey's office Building 1

19

S. side

"

"

20

E. side

"

"

21

N. side

"

"

22

W. side

23

24

25

26

27

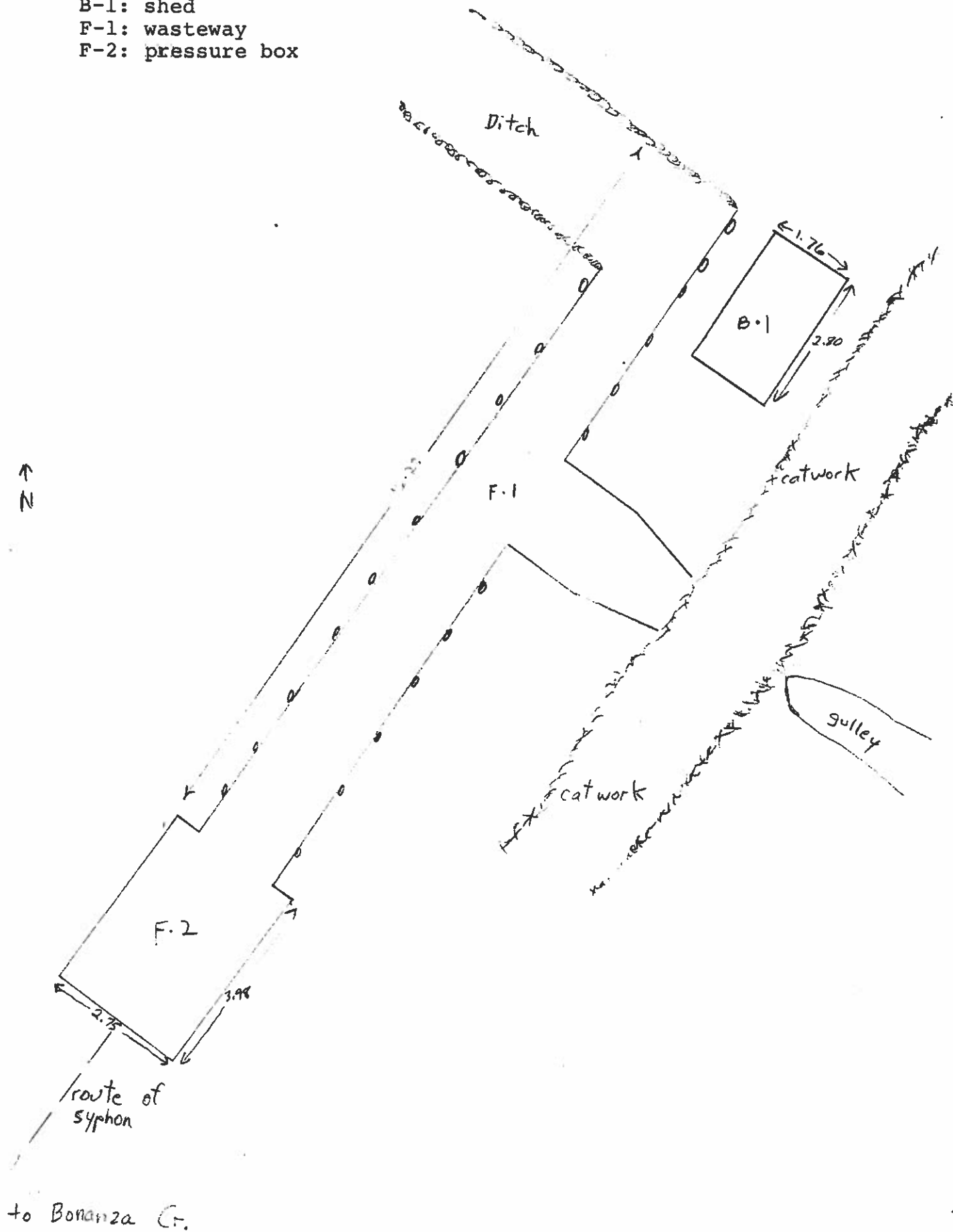
SITE 17

BONANZA INTAKE

B-1: shed

F-1: wasteway

F-2: pressure box



SITE 17

BONANZA INTAKE

Roll 921-2

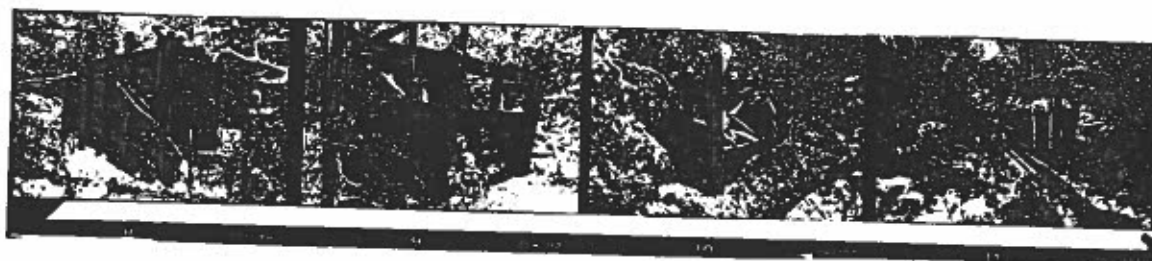


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. SKUCE

Date Sept. 14/92

Field Film # 921.2

LOCATION Site 17

BUILDING

Elevation/View

Frame
Number

0

1

Bonanza Intake

Building 1

2

W. side

"

"

3

S. side

"

Feature 1

4

W. side

"

"

5

E. side showing diversion

"

Feature 2

6

E. side from road

"

"

7

S.E. side

"

"

8

S.W. corner

"

"

9

E. side

"

"

10

N.W. corner

"

"

11

N. end of header box

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

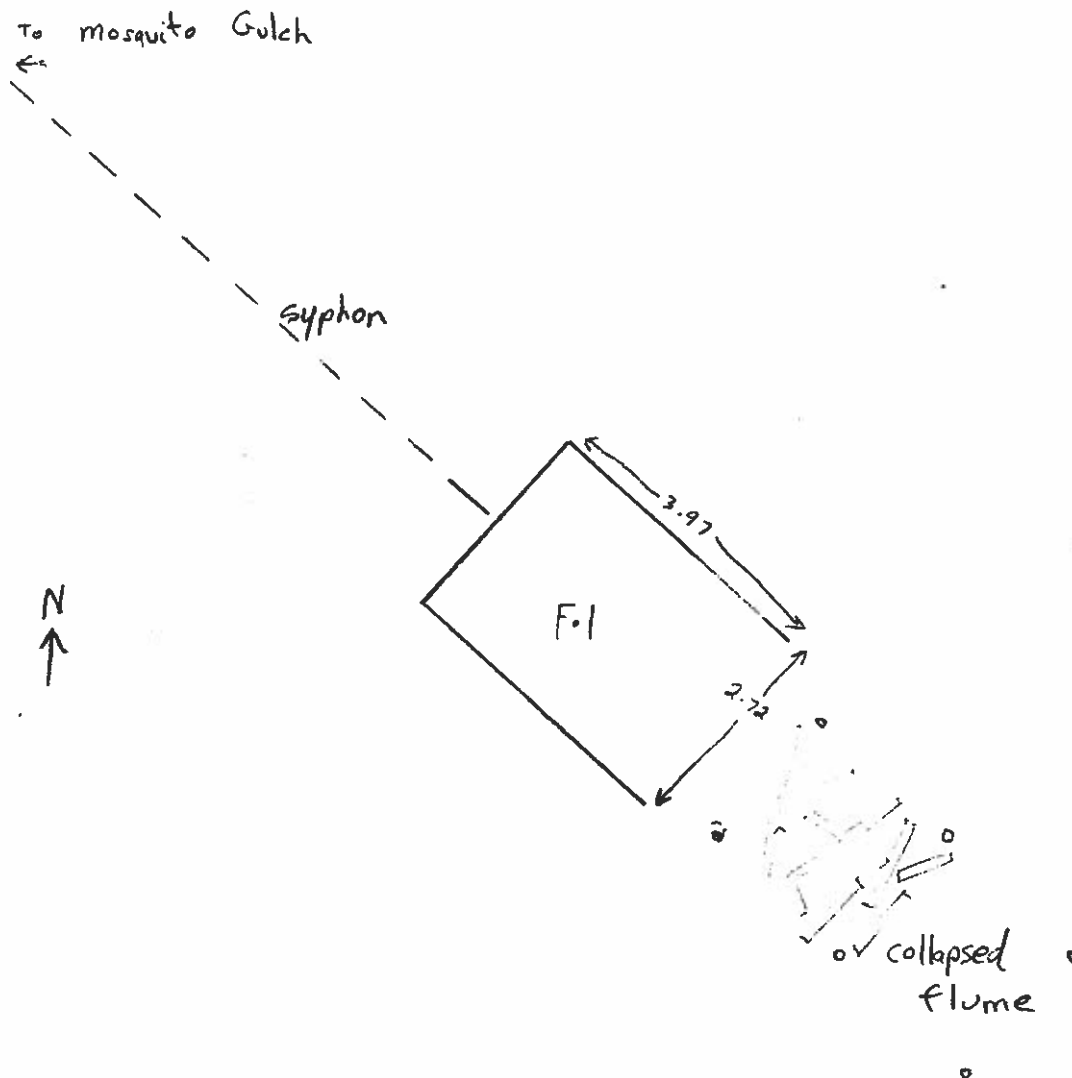
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SITE 18

MOSQUITO DISCHARGE

F-1: pressure box



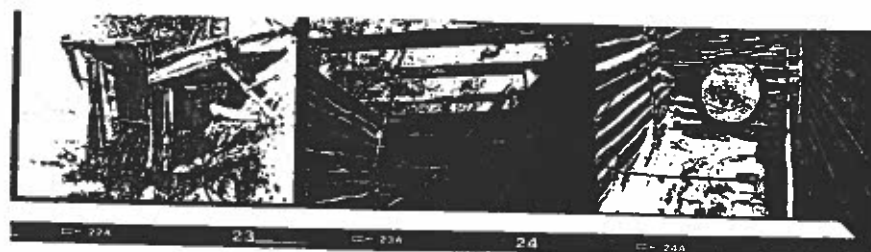
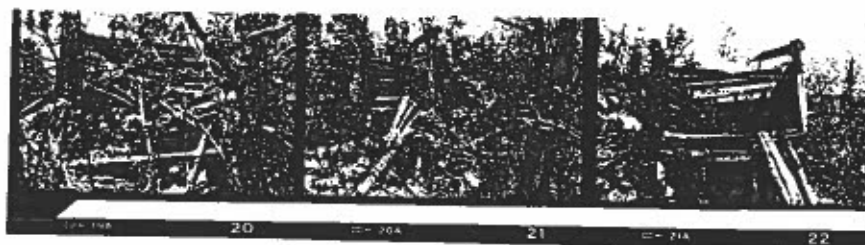
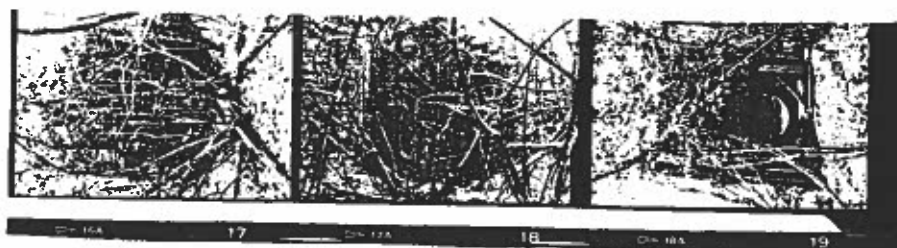


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. Skuce

Date Sept 14/92

Field Film #921.3

LOCATION

Site 18

BUILDING

Elevation/View

Frame
Number

0

1

2

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4

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6

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8

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11

12

13

14

15

16

Mosquito Discharge Feature 1

17

S. corner of header box

"

"

18

S. corner

"

"

19

N.W. end

"

"

20

N.E. side

"

"

21

E. corner

"

"

22

S.E. end

"

"

23

S.E. end with flume remains

"

"

24

interior

"

"

25

interior showing bands

26

27

SITE 19

MOSQUITO INTAKE

F-1: sandbox

F-2: wasteway

F-3: pressure box

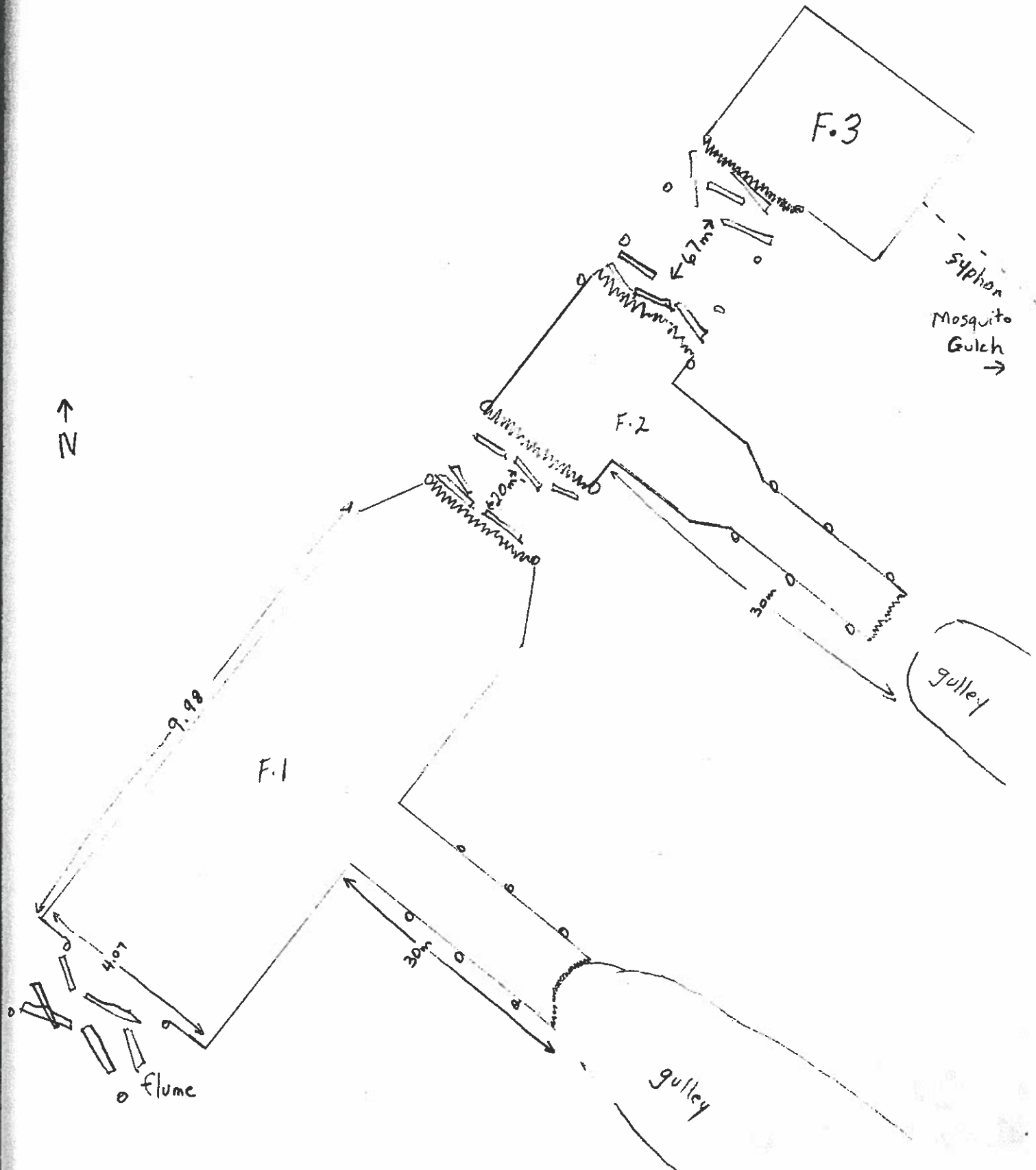




PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER *G. Skuce*

Date *Sept. 16/92*

Field Film # *921.1*

LOCATION

BUILDING

Elevation/View

Frame
Number

Mosquito Intake Feature 3

"

"

"

"

"

"

"

"

"

"

"

"

0

1

2

E. corner of sandbox

3

S. end (flume entrance)

4

S.W. corner

5

gully downhill of sandbox

6

clean-out chute of sand box

7

N.E. corner

8

closer view of cleanout gates

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

PHOTOGRAPHER G. SKUCE

Date Sept. 16/92

Field Film #921.2

LOCATION

Site 19

BUILDING

Elevation/View

Frame
Number

0

1

2

3

4

5

6

7

8

9

10

11

Mosquito Intake

Feature 1

12

E. corner header box

"

13

S. corner

"

"

14

S.W. end

"

"

15

" " showing flume entrance

"

"

16

W.

"

"

17

N. E. side

"

"

18

turnstile for gate

"

"

19

interior

"

Feature 2

20

N.W. / through diversion gate

"

"

21

closer " "

"

"

22

S. E. corner

"

"

23

S.W. (collapsed chute)

"

Feature 3

24

N.W. end of sand box

"

25

N. side

26

27

29

SITE 20

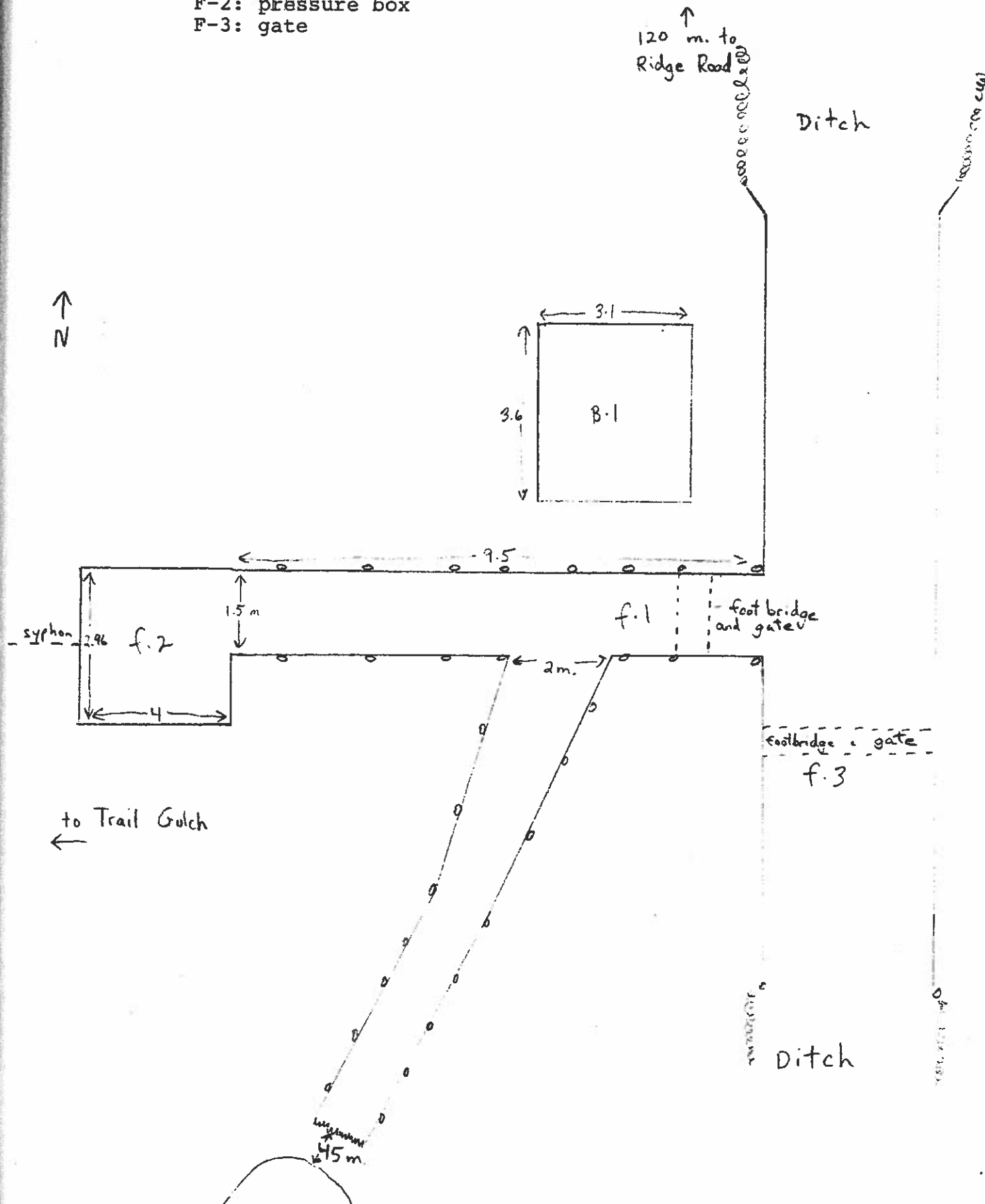
TRAIL GULCH INTAKE

B-1: lunchroom/ shop

F-1: diversion

F-2: pressure box

F-3: gate



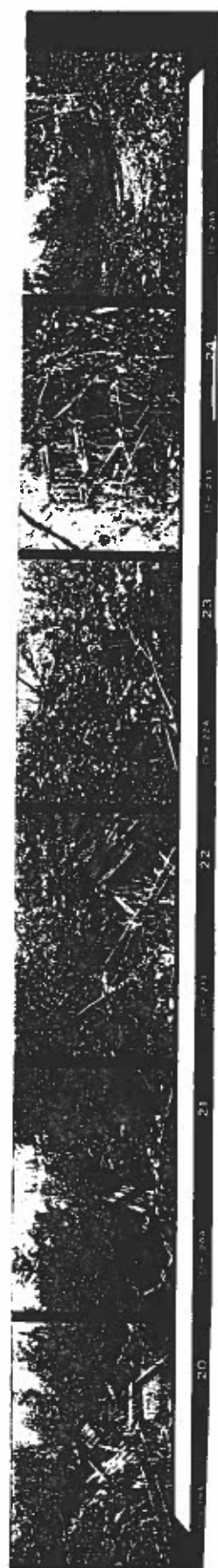
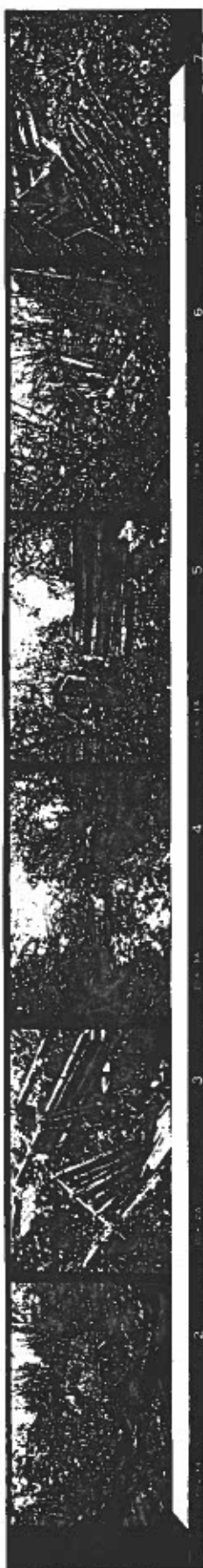


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. Skuce

Date Sept. 9/92

Field Film # 921.3

LOCATION

Site 20

BUILDING

Elevation/View

Frame
Number

0

1

Trail Gulch - Intake

Feature 1

2

S. end showing flume

"

"

3

gate across diversion

"

"

4

N. past diversion

"

"

5

looking west at opening

"

"

6

S. showing gate in main ditch

"

"

7

closer view of gate

"

"

8

" " "

"

9

sawhorses N of cabin

"

Building 1

10

interior of cabin

"

"

11

S. wall

"

12

dump

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

29

PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. Skuce

Date Sept. 9/92

Field Film #21.4

LOCATION

Site 20

BUILDING

Elevation/View

Frame
Number

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Trail Gulch Intake Building 1

16

N. side

"

"

17

"

"

"

18

S.W. corner

"

"

19

S. E. "

"

Feature 1

20

looking S.

"

"

21

" E.

"

"

22

entrance from main ditch

"

Feature 2

23

S. W. side

"

"

24

W. side of header box

"

"

25

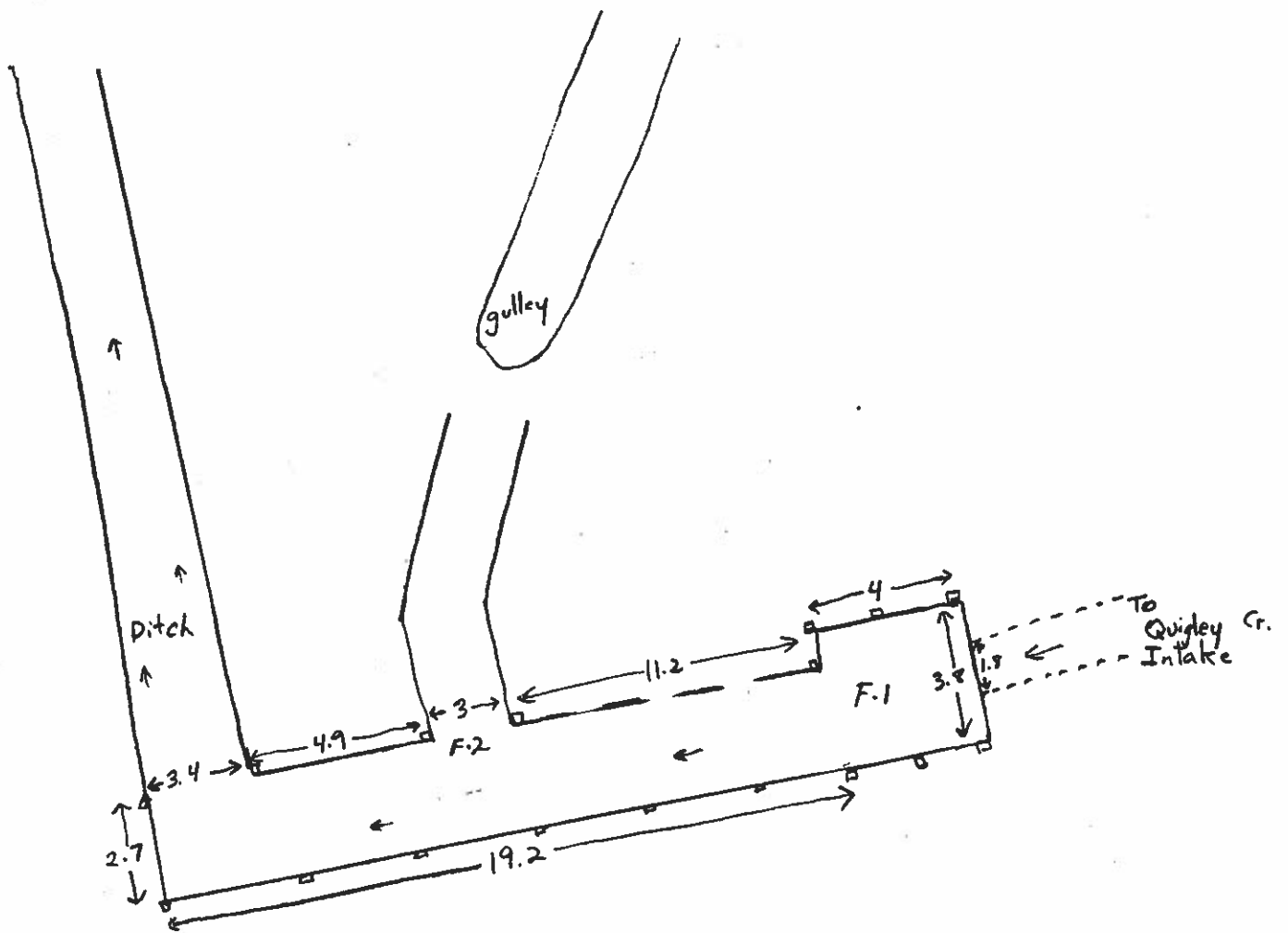
S. along ditch

26

27

29

SITE 21
QUIGLEY GULCH DISCHARGE
F-1: pressure box
F-2: wasteway



N
↑

5mm = 1m.

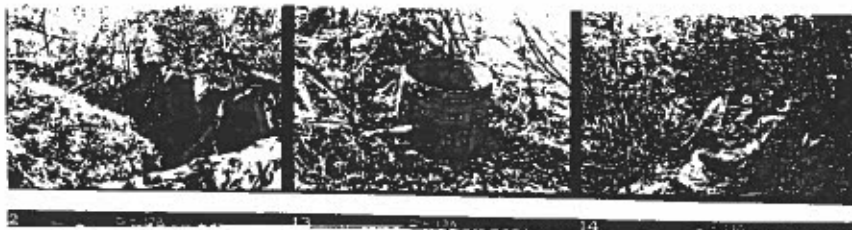
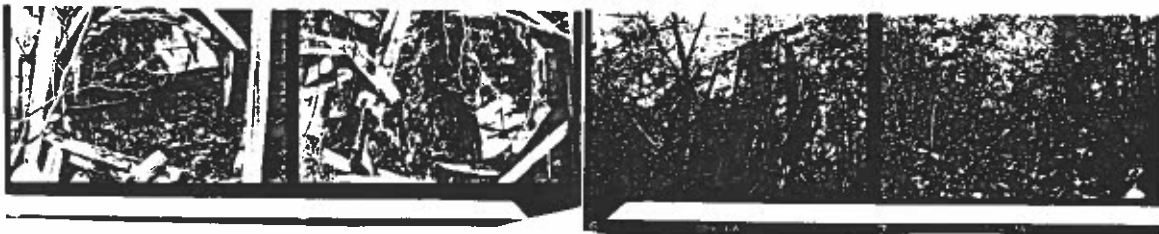
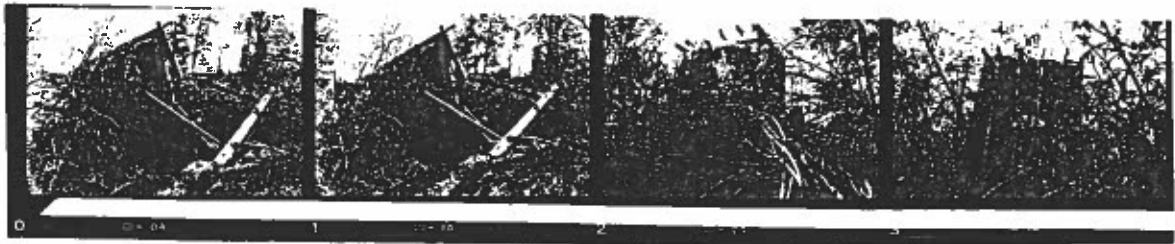


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER B. Hagan

Date May 20, '93

Field Film #991.1

LOCATION Site 21

BUILDING

Elevation/View

		Frame Number	
Quigley Gulch Discharge	F. 1	0	S. with flume entrance
"	"	1	"
"	"	2	N.E. corner
"	"	3	W. side
"	"	4	W. with pipe entrance
"	"	5	"
"	"	6	S. side
"	"	7	W. from pipeline
"	diversion	8	N.E. side of ditch
"	"	9	N.E. corner
"	"	10	"
"	F. 2	11	N. wasteway entrance
"	H	12	E side
"	barrel	13	barrel
"	F. 2	14	N. along run-off.
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	
		25	
		26	
		27	
		29	

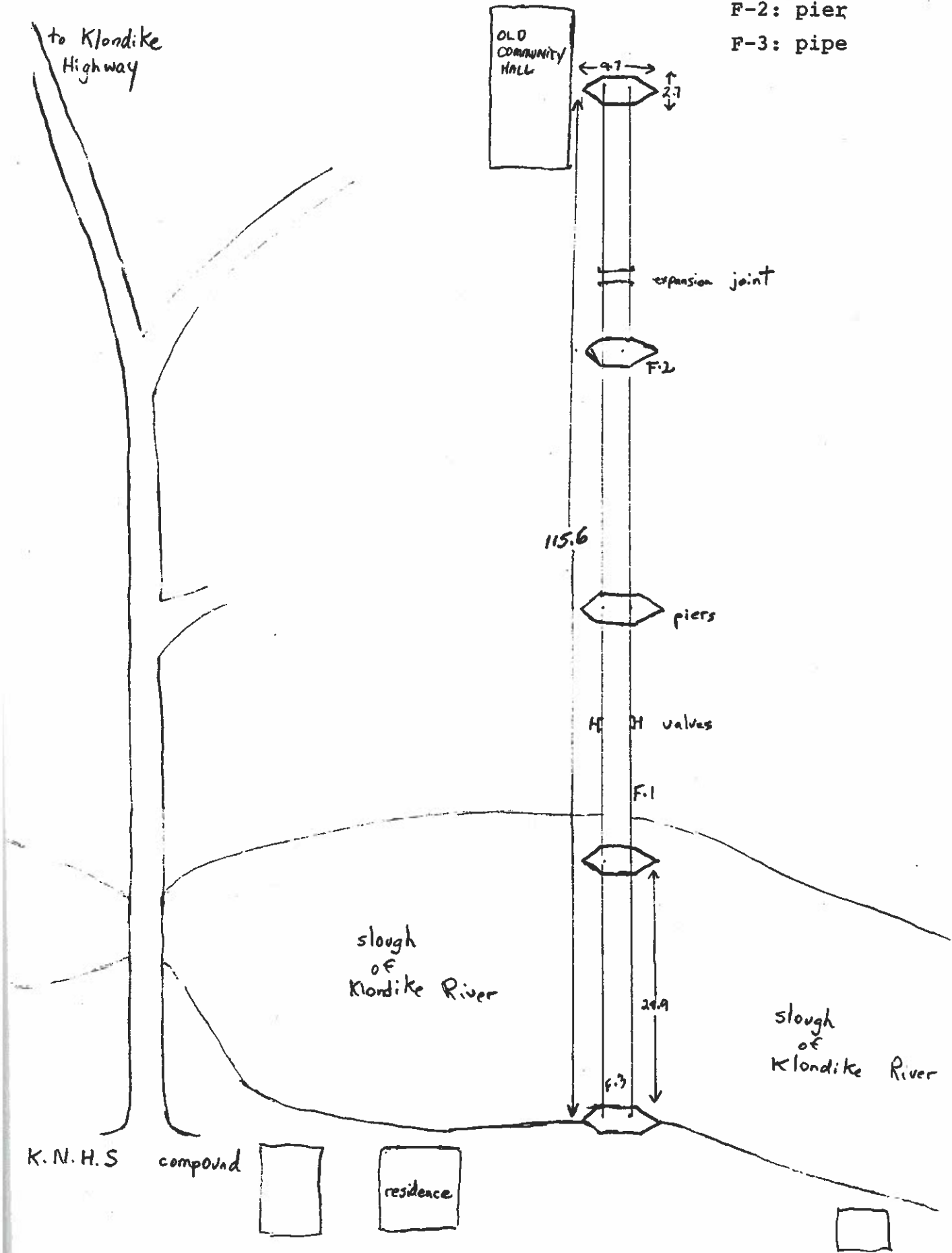
SITE 22

KLONDIKE CROSSING

F-1: bridge

F-2: pier

F-3: pipe



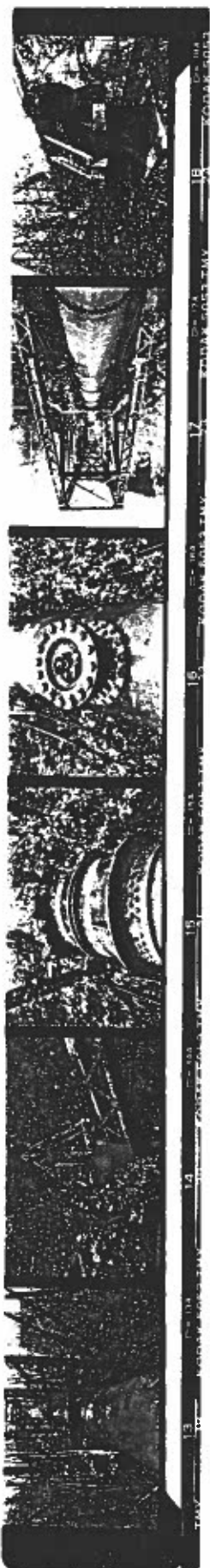


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER G. Skuce

Date May 13, 93

Field Film #931.2

LOCATION Site 22

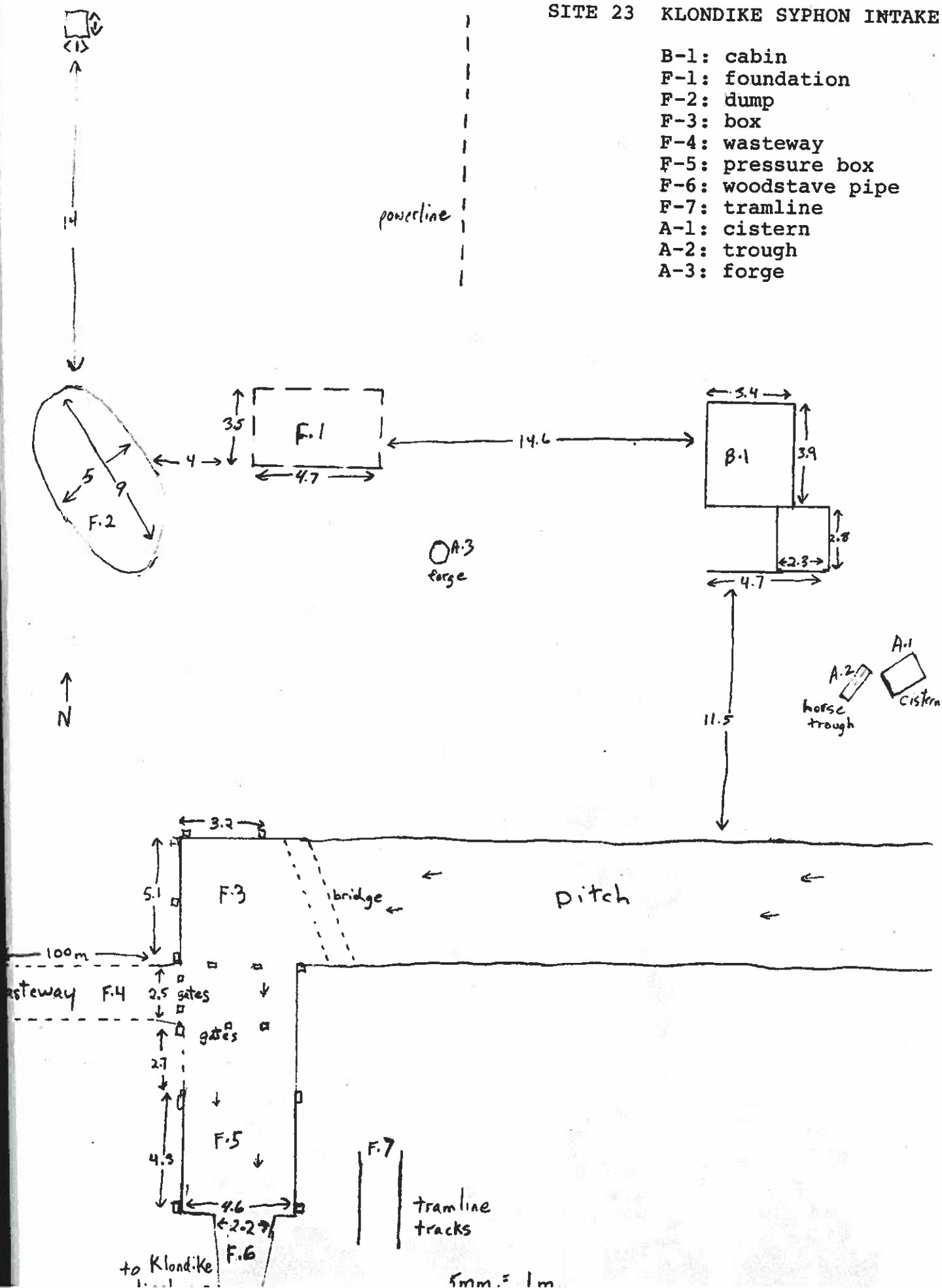
BUILDING

Elevation/View

		Frame Number	
		0	
Klondike Crossing	F.1	1	N. at end of bridge
"	"	2	closer view
"	"	3	closer view
"	"	4	girder and support
"	"	5	S.E. side
"	"	6	N. along pipe
"	"	7	E. at end of pier
"	"	8	S. end of 1st span
"	"	9	flanges for valves
"	"	10	detail of upright
"	"	11	junction of spans
"	"	12	N. along pipe
"	"	13	cross beam for bridge
"	"	14	junction of span & pier
"	"	15	expansion joint
"	"	16	inspection plate
"	"	17	S. along pipe
"	"	18	recent support for pipe
"	F.2	19	E. end of pier
"		20	N. side
"		21	detail
"		22	W. end
"		23	W. side of bridge
"	fuel tanks	24	pipes made into fuel storage
"	"	25	" " "
		26	
		27	
		28	

SITE 23 KLONDIKE SYPHON INTAKE

- B-1: cabin
F-1: foundation
F-2: dump
F-3: box
F-4: wasteway
F-5: pressure box
F-6: woodstave pipe
F-7: tramline
A-1: cistern
A-2: trough
A-3: forge



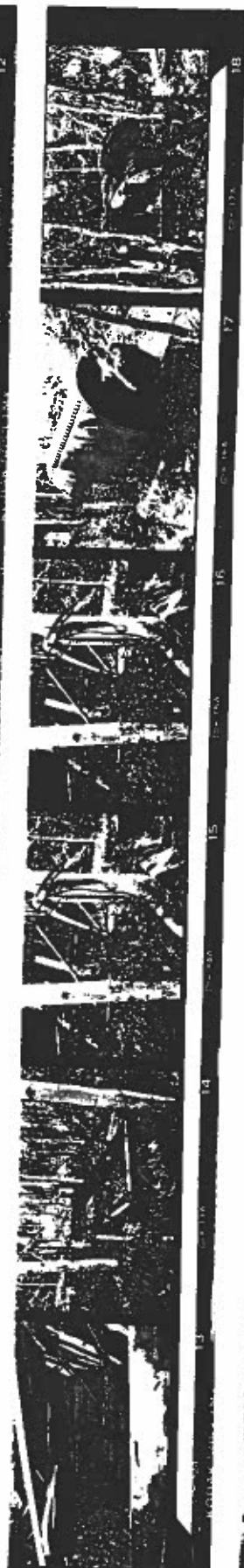
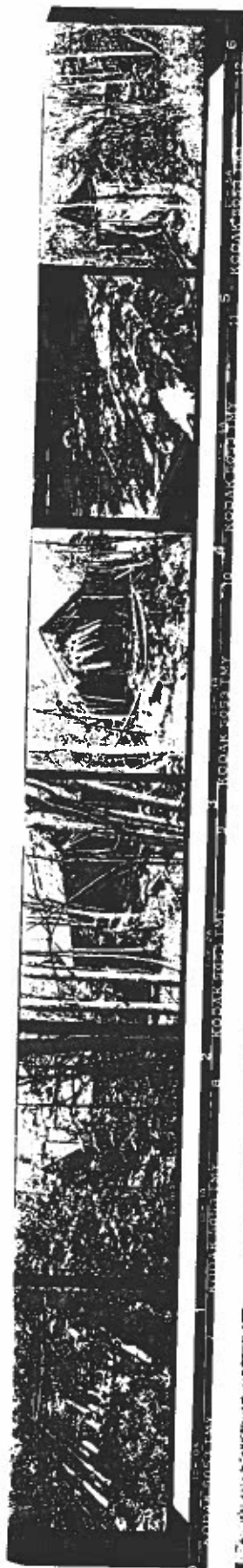


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER *B. Hogan*

Date *June 21/93*

Field Film #*931-3*

LOCATION <i>Site 23</i>	BUILDING	Elevation/View
	Frame Number	
	0	
<i>Klondike Syphon Intake</i>		
<i>"</i>	<i>B-1.</i>	<i>1 pipe sections</i>
<i>"</i>	<i>"</i>	<i>2 N.W. corner</i>
<i>"</i>	<i>"</i>	<i>3 S.W. corner</i>
<i>"</i>	<i>"</i>	<i>4 N. wall</i>
<i>"</i>	<i>"</i>	<i>5 porch</i>
<i>"</i>	<i>"</i>	<i>6 N.E. corner</i>
<i>"</i>	<i>"</i>	<i>7 E. wall</i>
<i>"</i>	<i>"</i>	<i>8 interior of cabin</i>
<i>"</i>	<i>"</i>	<i>9 " "</i>
<i>"</i>	<i>"</i>	<i>10 doorway to shed</i>
<i>"</i>	<i>"</i>	<i>11 interior of shed</i>
<i>"</i>	<i>"</i>	<i>12 " " "</i>
<i>"</i>	<i>"</i>	<i>13 " " "</i>
<i>"</i>	<i>A-2</i>	<i>14 (horse) trough</i>
<i>"</i>		<i>15 scythe</i>
<i>"</i>		<i>16 "</i>
<i>"</i>	<i>A-1</i>	<i>17 cistern</i>
<i>"</i>	<i>"</i>	<i>18 "</i>
<i>"</i>		<i>19 E. side of yard</i>
		<i>20</i>
		<i>21</i>
		<i>22</i>
		<i>23</i>
		<i>24</i>
		<i>25</i>
		<i>26</i>
		<i>27</i>
		<i>28</i>

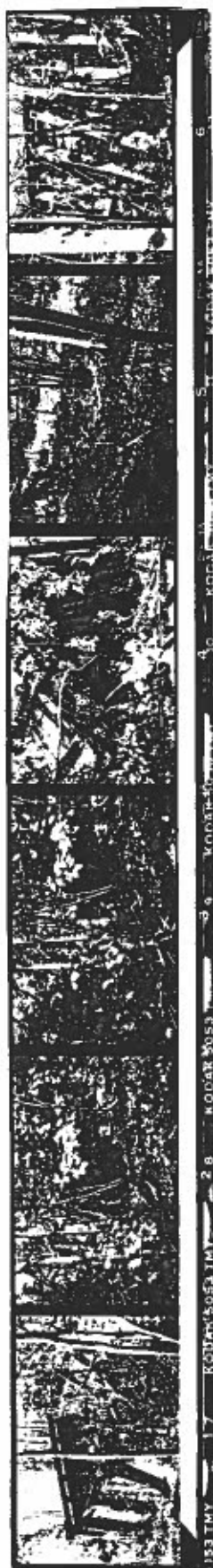


PHOTO IDENTIFICATION SHEET

PHOTOGRAPHER B. Hogan

Date June 21/93

Field Film #931.4

LOCATION Site 23	BUILDING	Elevation/View	
		Frame Number	
		0	
Klondike Syphon Intake	F-5	1	N.E. corner
"		2	footings
"		3	"
"	F-5	4	N.E. inside box
"		5	E along berm
"	F-5	6	S.E. corner
"	"	7	S. side
"	F-6	8	penstock/pipeline
"	"	9	wood staves - bands
"	"	10	" "
"	"	11	" "
"	F-5	12	S.W. corner
"	"	13	W. side
"	F-4	14	W. side of gulley
"	"	15	W. (opening)
"	"	16	closer "
"	F-3	17	W. side
"	"	18	inside
"	A-3	19	forge
"	F-1	20	E. side
"	"	21	N.E. corner
"	"	22	W. side
"	F-2	23	S.E. corner
"	"	24	N.W. corner
		25	
		26	
		27	