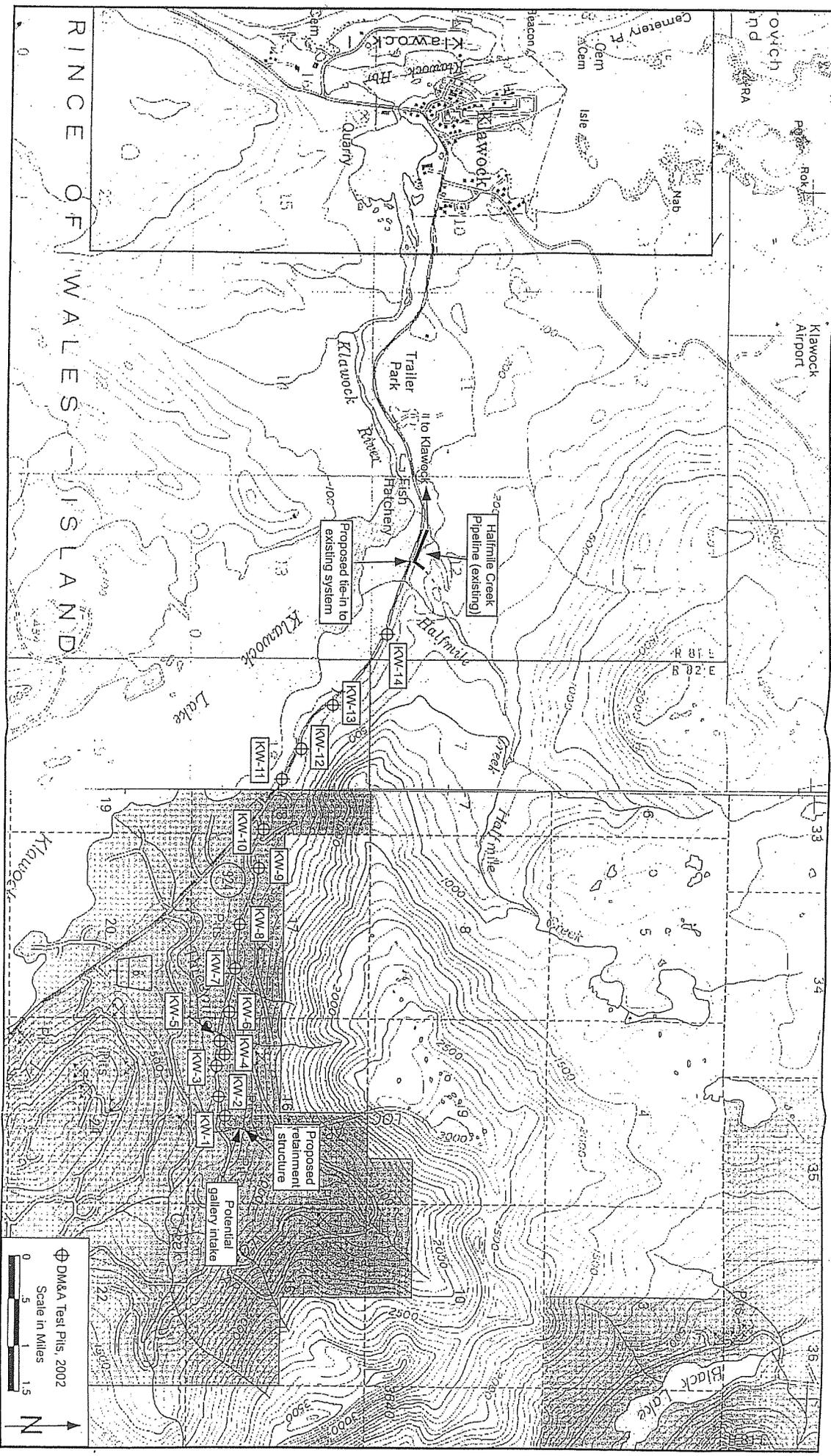
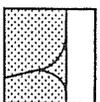


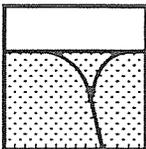
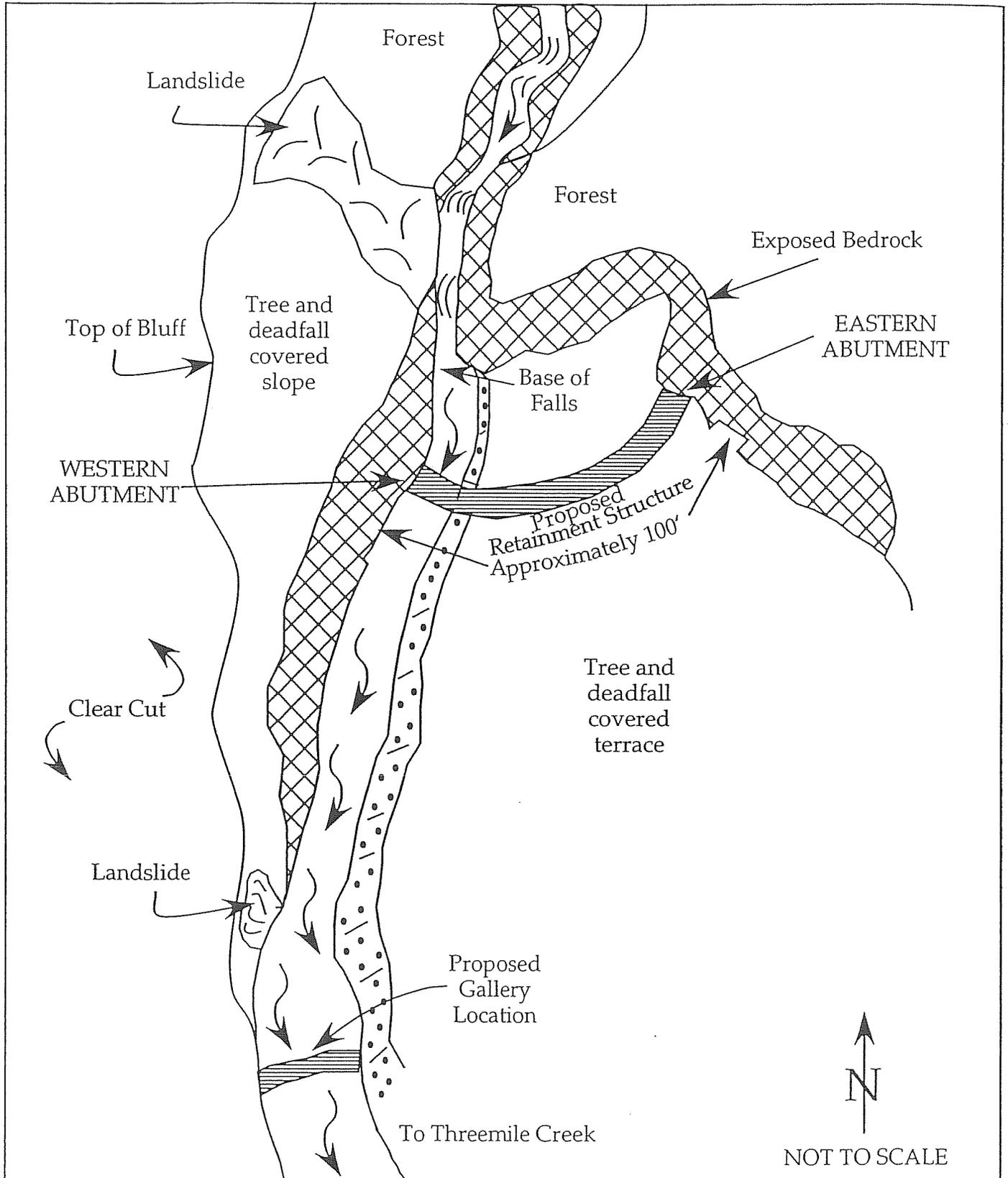
Appendix E

Geotechnical Data




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 Job No.: 414911
 Date: July 2002

SITE PLAN
 Klawock Water Source
 Klawock, Alaska



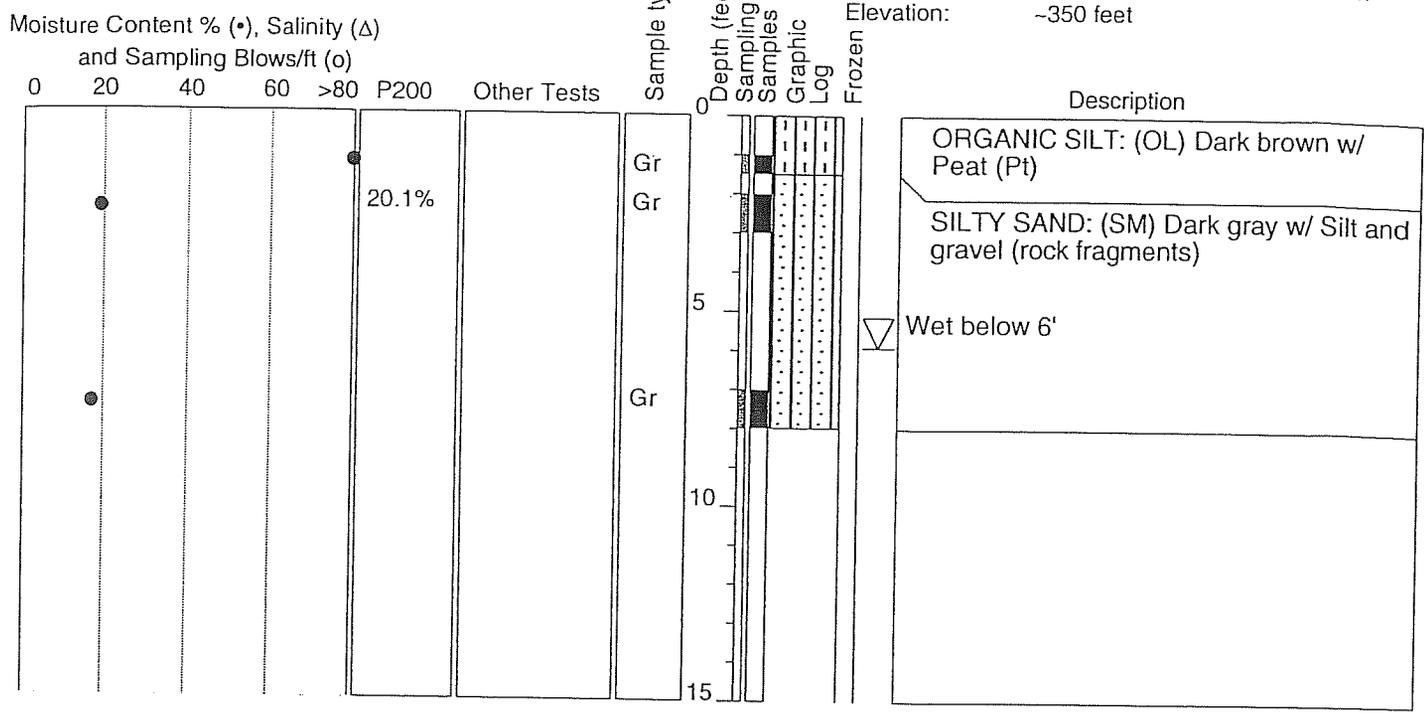
Duane Miller & Associates
 Arctic & Geotechnical Engineering
 Job No.: 4149.11
 Date : November 2002

SURFACE CONDITIONS AT
WATER SOURCE
 Potential Intake Structures
 Klawock, Alaska

Plate
 2

Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

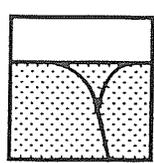
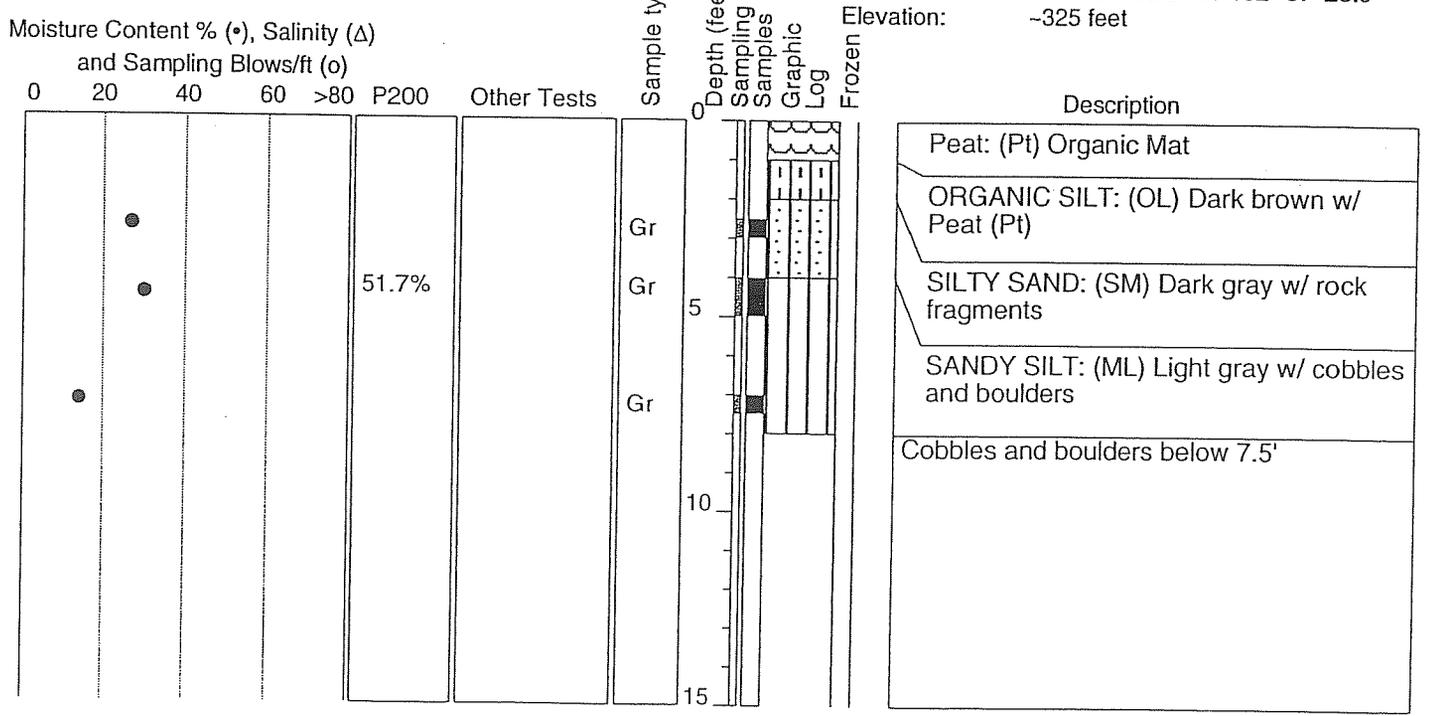
Log of HOLE : KW-1
 Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 07.0" W 132° 57' 17.7"
 Elevation: ~350 feet



DUANE MILLER & ASSOCIATES

Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-2
 Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 08.6" W 132° 57' 26.9"
 Elevation: ~325 feet



Duane Miller & Associates
 Arctic & Geotechnical Engineering
 Job No.: 4149.11
 Date : August 2002

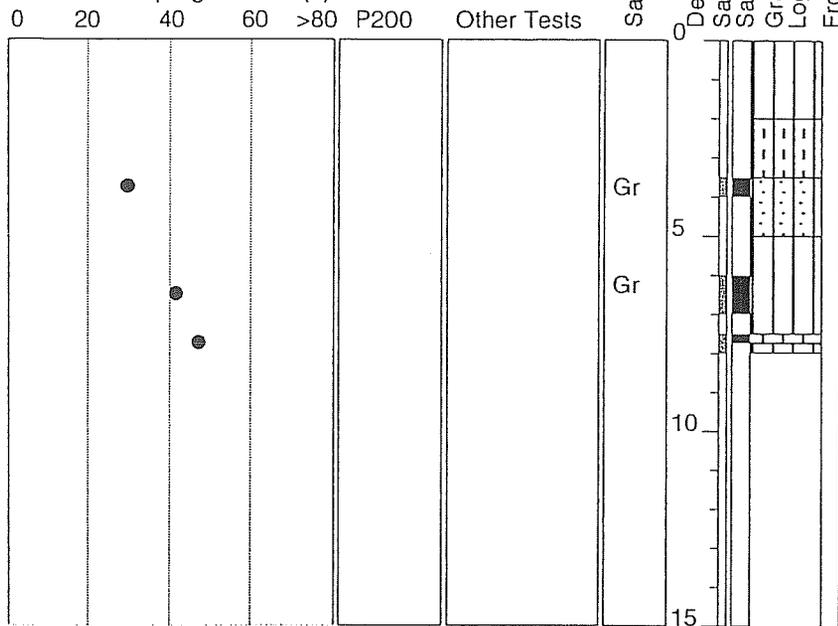
LOG of BORING KW-1 & 2
 Klawock Hydro
 Klawock, Alaska

DUANE MILLER & ASSOCIATES

Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-3
 Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 08.5" W 132° 57' 40.0"
 Elevation: ~300 feet

Moisture Content % (*), Salinity (Δ)
 and Sampling Blows/ft (o)



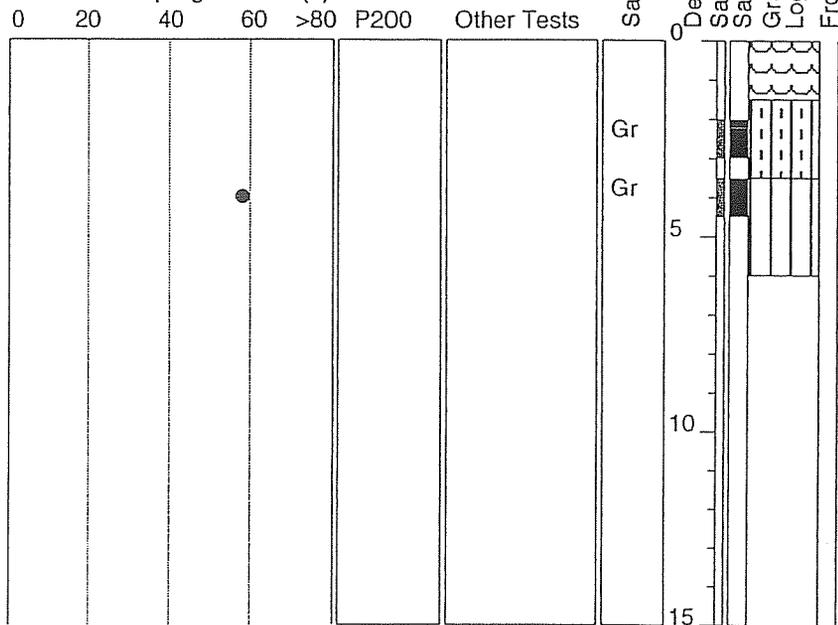
Depth (feet)	Description
0 - 3	SILT: (ML) Fill, 3" surface of forest organics over shot rock w/ corduroy
3 - 4.5	ORGANIC SILT: (OL) Dark brown w/ roots
4.5 - 5	SILTY SAND: (SM) Gray, rocky w/ log at 5'
5 - 6.5	SILT: (ML) Gray brown, w/ small rock fragments
6.5 - 15	ROCK: (RX) Gray brown, w/ Silt (ML)

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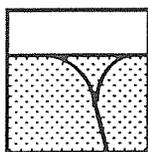
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-4
 Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 10.2" W 132° 57' 47.7"
 Elevation: ~325 feet

Moisture Content % (*), Salinity (Δ)
 and Sampling Blows/ft (o)



Depth (feet)	Description
0 - 1	PEAT: (Pt) With brown Organic Silt (ML) w/ roots
1 - 4.5	ORGANIC SILT: (OL) Red-brown w/ small rock fragments
4.5 - 15	SILT: (ML) Light gray w/ some sand, rocky



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 Job No.: 4149.11
 Date : August 2002

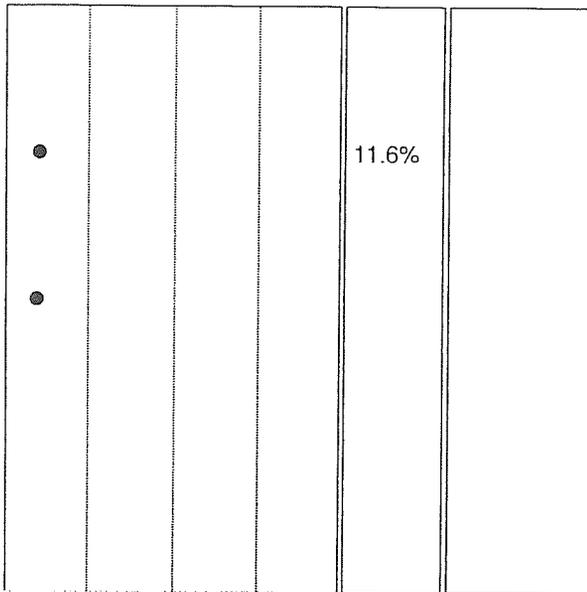
LOG of BORING KW-3 & 4
 Klawock Hydro
 Klawock, Alaska

Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W. T. Phillips

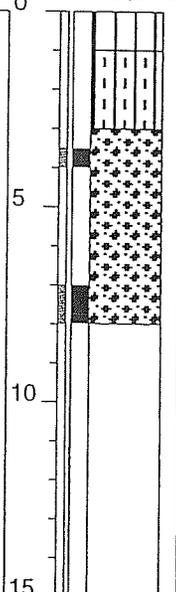
Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 08.6" W 132° 57' 54.2"
 Elevation: ~300 feet

Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Sample type
 Depth (feet)
 Sampling Interval
 Samples
 Graphic
 Log
 Frozen



Description

SILT: (ML) Road metal shot rock
ORGANIC SILT: (OL) With roots
GRAVEL: (GW-GM) Gray-brown w/ sand and rocks (rounded cobbles)

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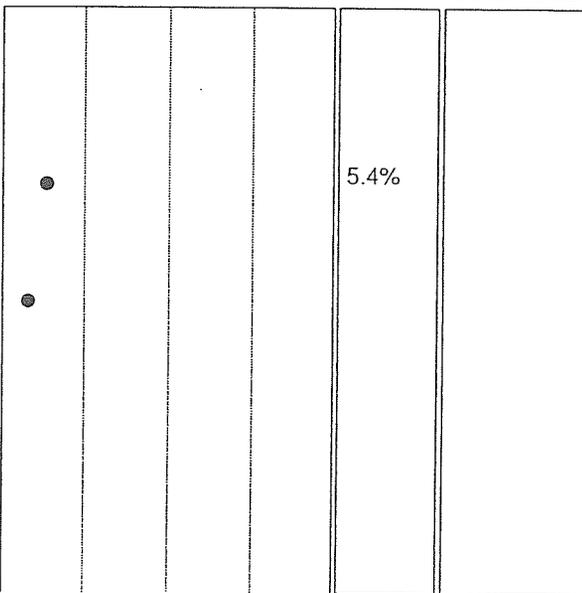
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W. T. Phillips

Log of HOLE : KW-6

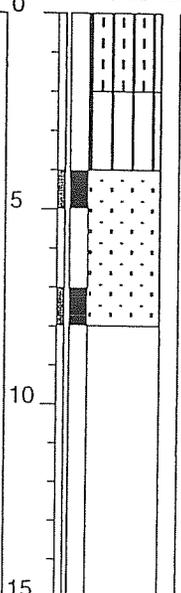
Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 10.7" W 132° 58' 12.2"
 Elevation: ~360feet

Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests

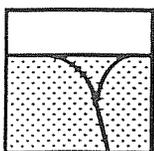


Sample type
 Depth (feet)
 Sampling Interval
 Samples
 Graphic
 Log
 Frozen



Description

ORGANIC SILT: (OL) Dark brown w/ black to brown Peat (Pt)
SILT: (ML) Gray brown w/ rock fragments and colluvium
SAND: (SP-SM) Light gray, soft, wet, w/ gravel Stiff from 5' to 7' Hard to very hard from 7' to 8'



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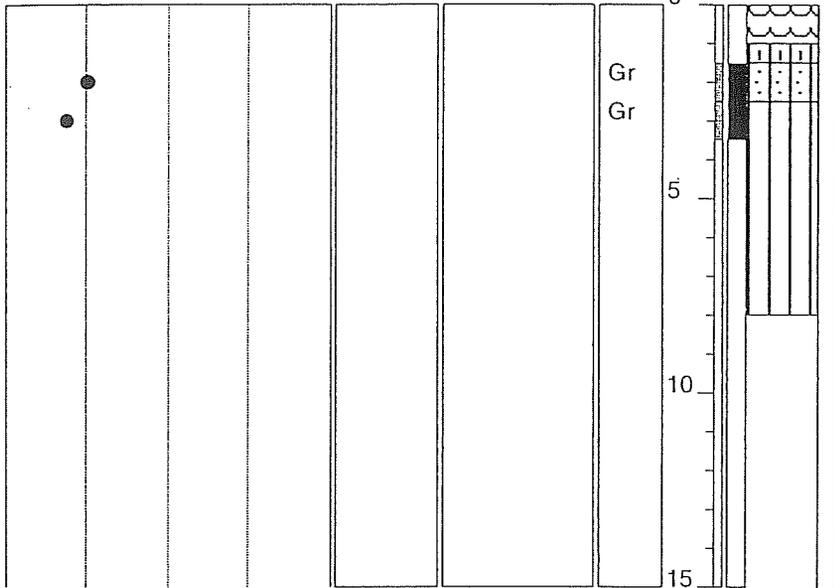
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W. T. Phillips

Log of HOLE : KW-7

Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 12.1" W 132° 58' 30.7"
 Elevation: ~350 feet

Moisture Content % (*), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Description

PEAT: (Pt) Misc. fill of organics and rubble
ORGANIC SILT: (OL) Brown w/ roots
SILTY SAND: (SM) Brown w/ rounded rocks to 2"
SANDY SILT: (ML) Light gray, stiff, w/ rock fragments

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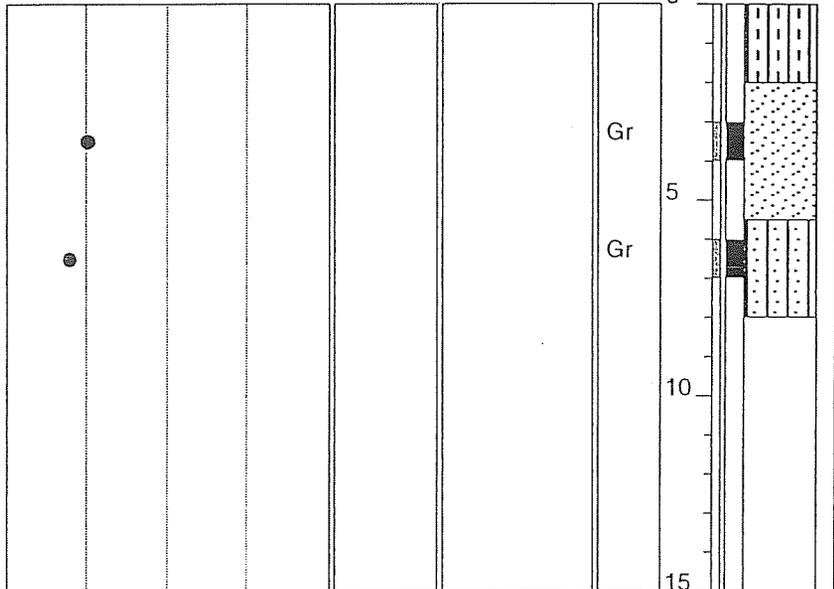
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-8

Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 14.4" W 132° 58' 53.0"
 Elevation: ~300 feet

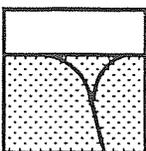
Moisture Content % (*), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Description

ORGANIC SILT: (OL) Dark brown and Peat (Pt) w/ roots, 4" to 8" angular rocks
GRAVELLY SAND: (SP-SM) Gray-brown w/ angular cobbles and boulders to 24"
SILTY SAND: (SM) Light gray w/ some gravel



Duane Miller & Associates
 Arctic & Geotechnical Engineering
 Job No.: 4149.11
 Date : August 2002

LOG of BORING KW-7 & 8
 Klawock Hydro
 Klawock, Alaska

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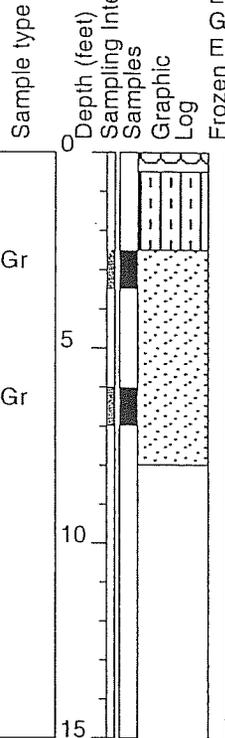
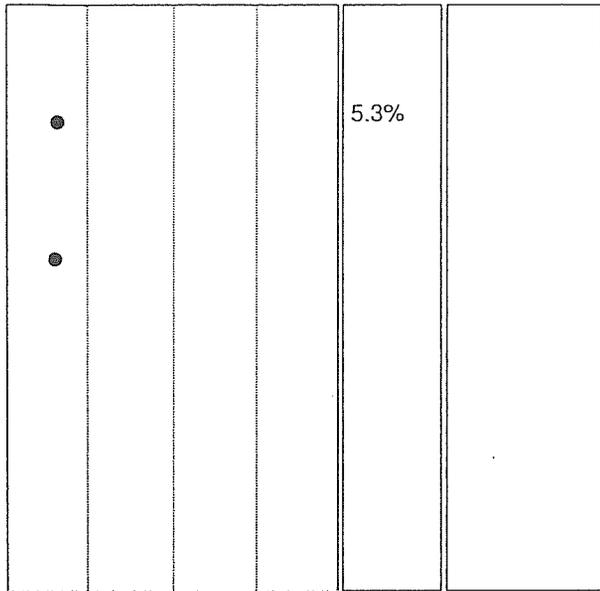
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-9

Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 20.0" W 132° 59' 21.3"
 Elevation: ~250 feet

Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Description

PEAT: (Pt) Organic mat w/ roots
 ORGANIC SILT: (OL) With roots, 4" to 10" rocks
 GRAVELLY SAND: (SP-SM) Gray-brown w/ rounded rocks to 12" in size
 Refusal on 36" boulder @ 4.5', moved 5' east and proceeded, cobbles and boulders are subangular to angular below 4.5'

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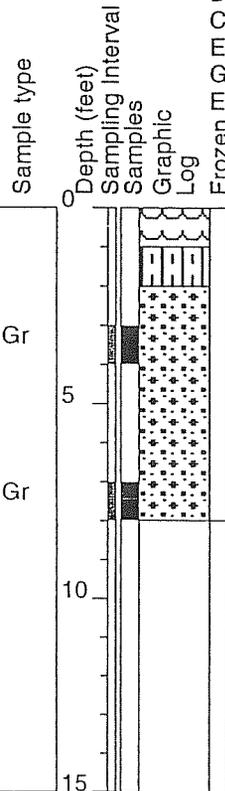
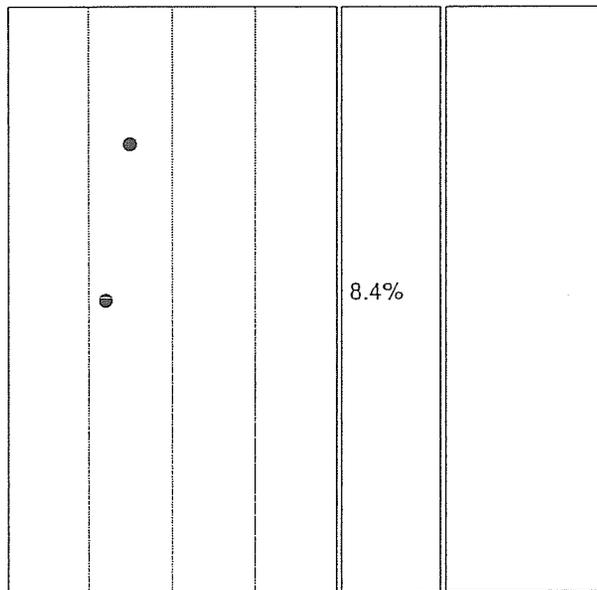
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-10

Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 19.5" W 132° 59' 41.5"
 Elevation: ~200 feet

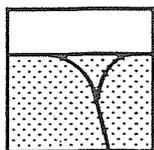
Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Description

PEAT: (Pt) Dark brown to black organic mat w/ roots
 ORGANIC SILT: (OL) Colluvial w/ small (<2") rock fragments and roots
 SANDY GRAVEL: (GW-GM) Brown w/ rock fragments



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 Job No.: 4149.11
 Date : August 2002

LOG of BORING KW-9 & 10
 Klawock Hydro
 Klawock, Alaska

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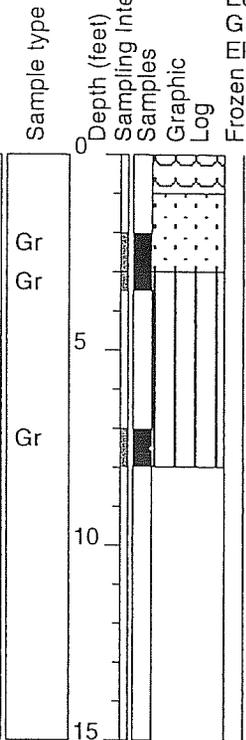
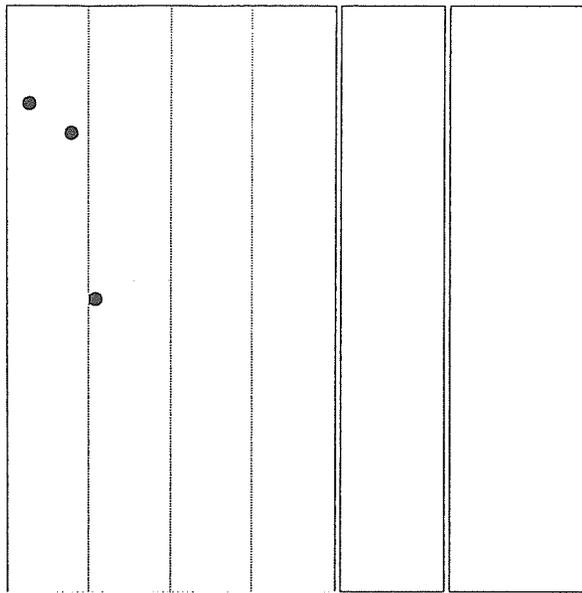
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-11

Date Drilled: May 21, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 26.0" W 132° 59' 05.9"
 Elevation: ~150 feet

Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Description

PEAT: (Pt) Organic mat w/ gravel mix, road debris
SAND: (SP-SM) Dark brown w/ rock fragments
SANDY SILT: (ML) Light brown to red-brown w/ rounded and subangular rock to 22"

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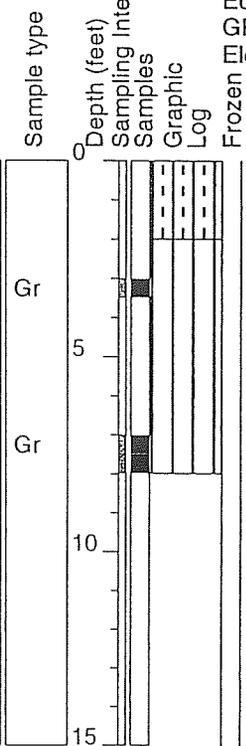
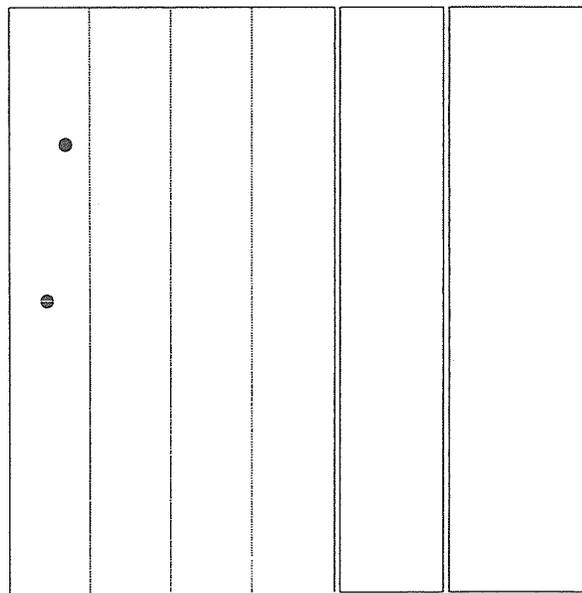
Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-12

Date Drilled: May 22, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 29.7" W 132° 00' 22.0"
 Elevation: ~125

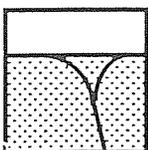
Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Description

ORGANIC SILT: (OL) With dark brown Peat (PT) and 0.6" road mat
SANDY SILT: (ML) Gray w/ gravel, cobbles, and boulders to 10" size



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 Job No.: 4149.11
 Date : August 2002

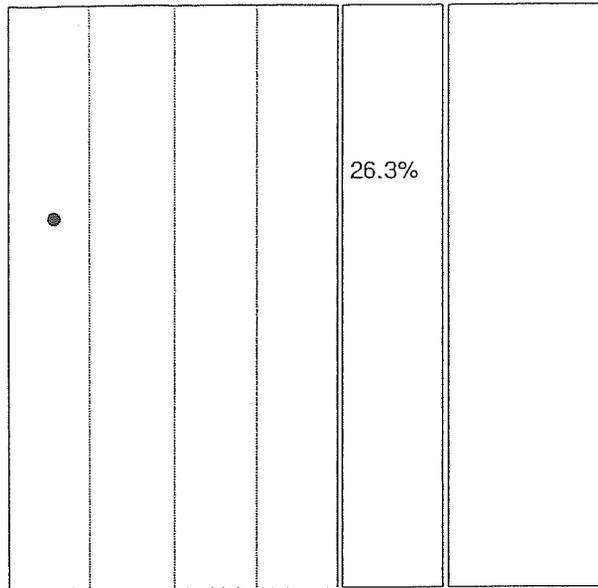
LOG of BORING KW-11 & 12
 Klawock Hydro
 Klawock, Alaska

Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-13
 Date Drilled: May 22, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 36.6" W 133° 00' 43.2"
 Elevation: ~125 feet

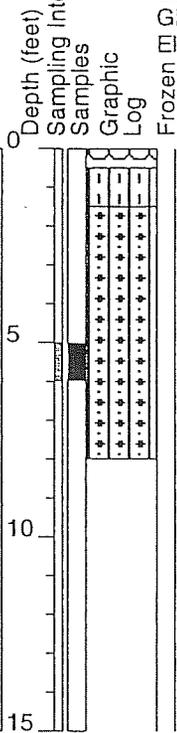
Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests



Sample type

Gr



Description

PEAT: (Pt) Root mat
ORGANIC SILT: (OL) Dark brown w/ Peat (PT) and roots
SILTY GRAVEL: (GM) Gray w/ some sand and 30% to 50% 16" size (12"x16"x26")

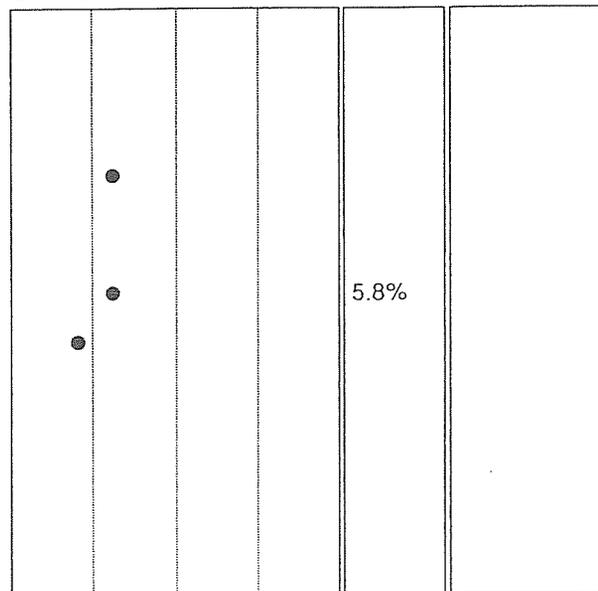
DUANE MILLER & ASSOCIATES

Project: Klawock Hydro
 DM&A Job No. :4149.11
 Logged By: W.T. Phillips

Log of HOLE : KW-14
 Date Drilled: May 22, 2002
 Contractor: AP&T
 Equipment: Kobelco 35-SR backhoe
 GPS Coord: N 55° 32' 53.6" W 133° 01' 16.5"
 Elevation: ~75 feet

Moisture Content % (•), Salinity (Δ)
 and Sampling Blows/ft (o)

0 20 40 60 >80 P200 Other Tests

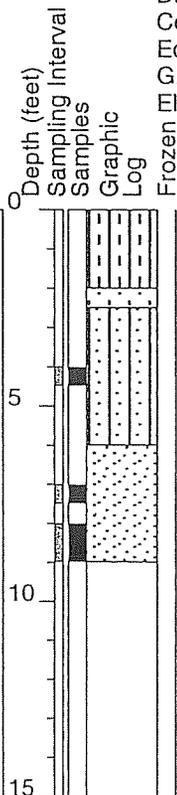


Sample type

Gr

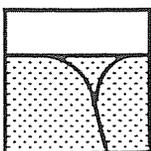
Gr

Gr



Description

ORGANIC SILT: (OL) Dark brown w/ Peat (Pt) and roots
SAND: (SP) Mixed w/ Organic Silt (OL) and scattered pebbles
SILTY SAND: (SM) Gray w/ gravel
GRAVELLY SAND: (SP-SM) With interbedded Sandy Silt (ML)



MAJOR DIVISIONS			SYMBOL	TYPICAL NAMES	
COARSE GRAINED SOILS >50% larger than #200 sieve, 75µm	GRAVELS More than half of the coarse fraction is larger than #4 sieve size, > 4.75 mm.	Clean gravels with little or no fines (<5%)	GW		Well graded gravels, sandy gravel
			GP		Poorly graded gravels, sandy gravel
		Gravels with more than 12% fines	GM		Silty gravels, silt sand gravel mixtures
			GC		Clayey gravels, clay sand gravel mixtures
	SANDS More than half of the coarse fraction is smaller than #4 sieve size < 4.75 mm.	Clean sands with little or no fines (<5%)	SW		Well graded sand, gravelly sand
			SP		Poorly graded sands, gravelly sand
		Sands with more than 12% fines	SM		Silty sand, silt gravel sand mixtures
			SC		Clayey sand, clay gravel sand mixtures
FINE GRAINED SOILS >50% finer than #200 sieve, 75µm	Plasticity Chart 	SILTS and CLAYS Liquid limit less than 50	ML		Inorganic silt and very fine sand, rock flour
			CL		Inorganic clay, gravelly and sandy clay, silty clay
		SILTS and CLAYS Liquid limit greater than 50	OL		Organic silts and clay of low plasticity
			MH		Inorganic silt
			CH		Inorganic clay, fat clay
			OH		Organic silt and clay of high plasticity
			Pt		Peat and other highly organic soil
HIGHLY ORGANIC SOILS					

KEY TO TEST DATA

Dd = Dry Density (pcf)
TC = Thaw Consolidation
TCf = Thaw Consolidation (field)
LL = Liquid Limit
PL = Plastic Limit
PI = Plastic Index
SpG = Specific Gravity
SA = Sieve Analysis
MA = Sieve and Hydrometer Analysis
OLI = Organic Loss
TXUU = Unconsolidated Undrained Triaxial
TXCU = Consolidated Undrained Triaxial
TXCD = Consolidated Drained Triaxial
XXX (YYY)
XXX=(σ1-σ3)/2
YYY=σ3

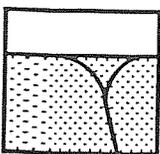
KEY TO SAMPLE TYPE

Ag = Auger grab
Ab = Auger bulk
Ac = Air chip
Cc = Continuous Core
Ss = 1.4" ID split barrel w/140 lb. manual hammer
Sh = 2.5" ID split barrel w/340 lb. manual hammer
Sha = 2.5" ID split barrel w/340 lb. automatic hammer
Tw = Shelby tube

UNIFIED SOIL CLASSIFICATION SYSTEM

GROUP	ICE VISIBILITY	DESCRIPTION	SYMBOL	
N	Segregated ice not visible by eye	Poorly bonded or friable	Nf	
		Well bonded	No excess ice	Nb
			Excess microscopic ice	
V	Segregated ice is visible by eye and is one inch or less in thickness	Individual ice crystals or inclusions	Vx	
		Ice coatings on particles	Vc	
		Random or irregularly oriented ice formations	Vr	
		Stratified or distinctly oriented ice formations	Vs	
		Uniformly distributed ice	Vu	
ICE	Ice greater than one inch in thickness	Ice with soil inclusions	ICE + soil type	
		Ice without soil inclusions	ICE	

ICE CLASSIFICATION SYSTEM



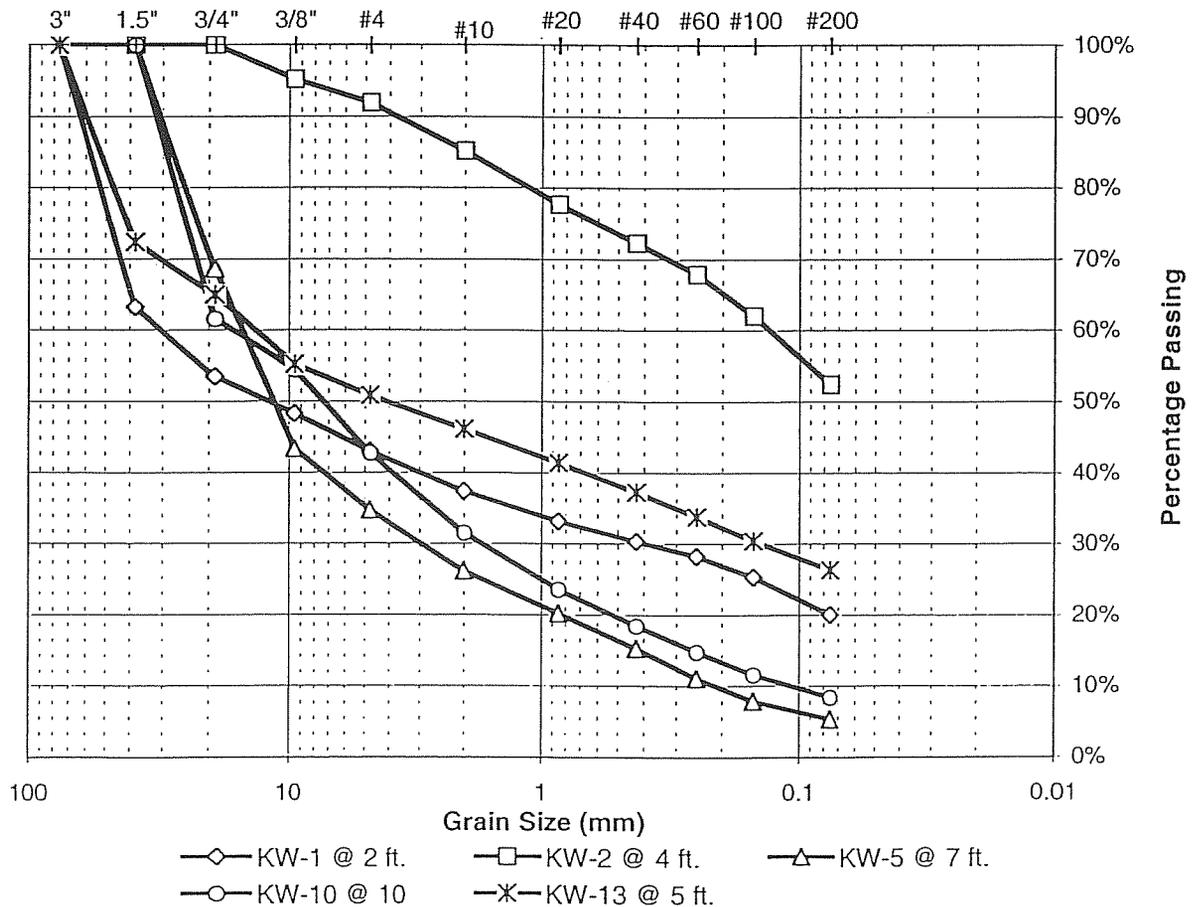
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4149.11
Date: August 2002

SOIL and ICE CLASSIFICATION
and KEY TO DATA
Hydro Project
Klawock, Alaska

Test Hole	Sample Depth	Soil Type (USCS)	Thermal State	Sampler Type	Moisture Content	Passing #200
KW-1	1.0 ft.	OL+Pt	Unfrozen	Gr	286.7%	
KW-1	2.0 ft.	SM	Unfrozen	Gr	19.0%	20.1%
KW-1	7.0 ft.	SM	Unfrozen	Gr	17.5%	
KW-2	2.5 ft.	SM	Unfrozen	Gr	26.6%	
KW-2	4.0 ft.	ML	Unfrozen	Gr	29.8%	51.7%
KW-2	7.0 ft.	ML	Unfrozen	Gr	14.3%	
KW-3	3.5 ft.	SM	Unfrozen	Gr	29.5%	
KW-3	6.0 ft.	ML	Unfrozen	Gr	41.5%	
KW-3	7.5 ft.	Bx+ML	Unfrozen	Gr	47.2%	
KW-4	2.0 ft.	OL	Unfrozen	Gr		
KW-4	3.5 ft.	ML	Unfrozen	Gr	58.4%	
KW-5	3.5 ft.	GW-GM	Unfrozen	Gr	8.5%	11.6%
KW-5	7.0 ft.	GW-GM	Unfrozen	Gr	7.5%	
KW-6	4.0 ft.	SP-SM	Unfrozen	Gr	11.2%	5.4%
KW-6	7.0 ft.	SP-SM	Unfrozen	Gr	6.3%	
KW-7	1.5 ft.	OL	Unfrozen	Gr	20.5%	
KW-7	2.5 ft.	ML	Unfrozen	Gr	15.6%	
KW-8	3.0 ft.	SP-SM	Unfrozen	Gr	20.5%	
KW-8	6.0 ft.	SM	Unfrozen	Gr	15.7%	
KW-9	2.5 ft.	SP-SM	Unfrozen	Gr	13.1%	5.3%
KW-9	6.0 ft.	SP-SM	Unfrozen	Gr	12.3%	
KW-10	3.0 ft.	GW-GM	Unfrozen	Gr	29.9%	
KW-10	7.0 ft.	GW-GM	Unfrozen	Gr	24.3%	8.4%
KW-11	2.0 ft.	SP-SM	Unfrozen	Gr	5.5%	
KW-11	3.0 ft.	ML	Unfrozen	Gr	16.2%	
KW-11	7.0 ft.	ML	Unfrozen	Gr	21.9%	
KW-12	3.0 ft.	ML	Unfrozen	Gr	14.4%	
KW-12	7.0 ft.	ML	Unfrozen	Gr	9.5%	
KW-13	5.0 ft.	GM	Unfrozen	Gr	11.7%	
KW-14	4.0 ft.	SM	Unfrozen	Gr	24.9%	26.3%
KW-14	7.0 ft.	SP-SM	Unfrozen	Gr	24.7%	5.8%
KW-14	8.0 ft.	ML	Unfrozen	Gr	16.6%	

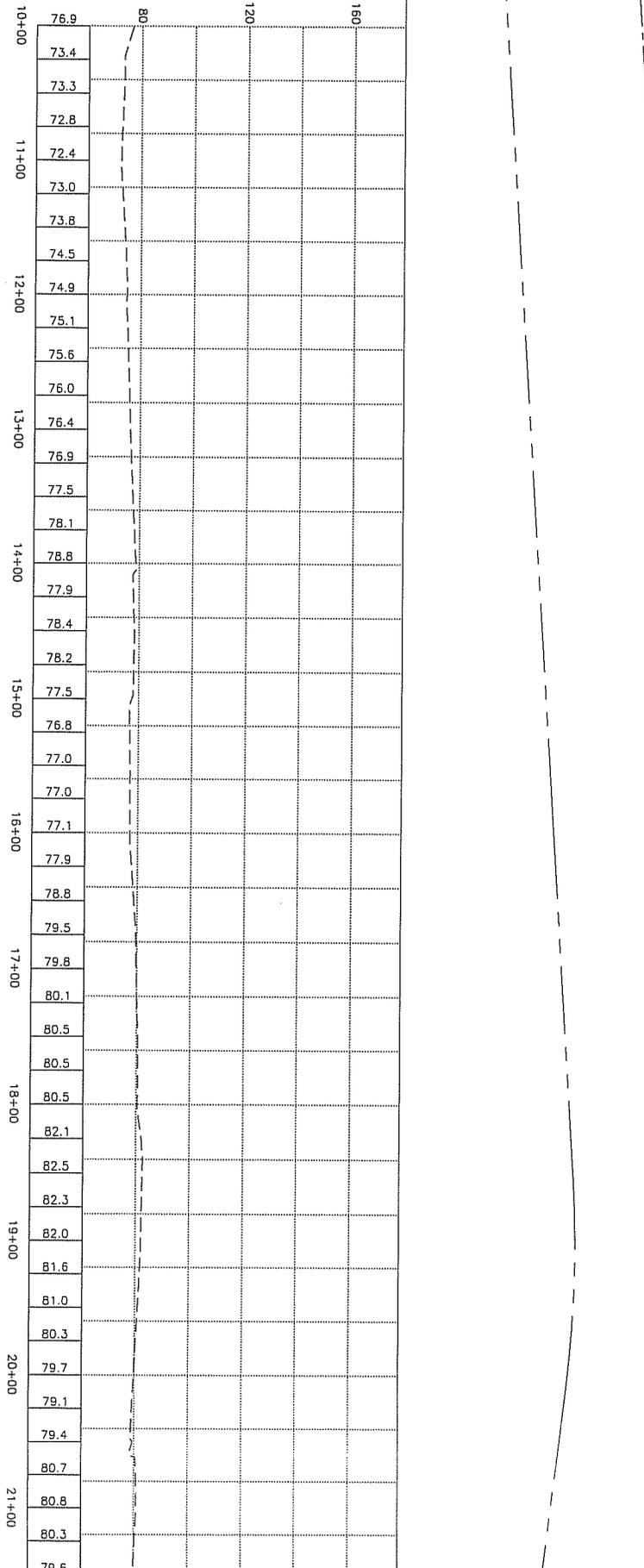
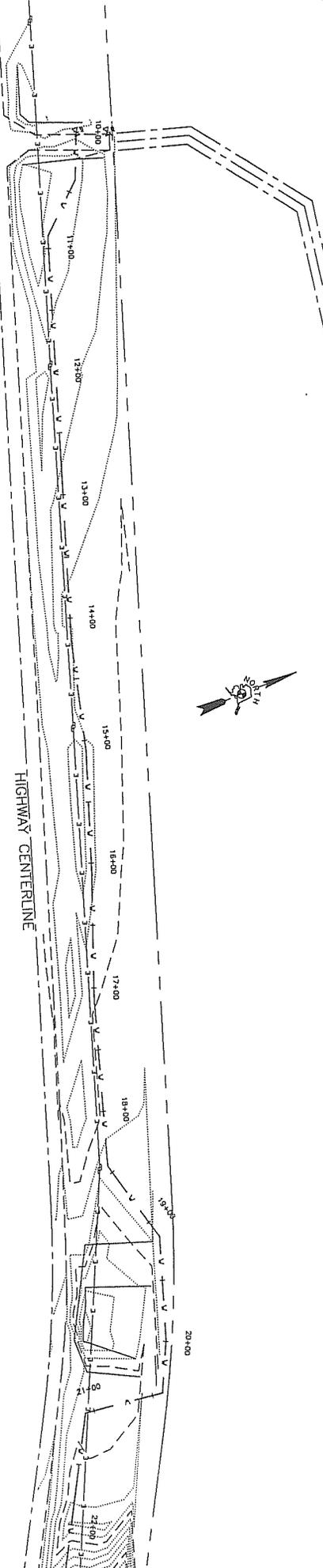
SUMMARY OF SAMPLES

Boring =>	KW-1	KW-2	KW-5	KW-10	KW-13
Depth =>	2.0 ft.	4.0 ft.	7.0 ft.	10.0 ft.	5.0 ft.
3" =>	100%	100%	100%	100%	100%
1 1/2" =>	63%	100%	100%	100%	72%
3/4" =>	53%	100%	69%	62%	65%
3/8" =>	48%	95%	43%	54%	55%
#4 =>	43%	92%	35%	43%	51%
#10 =>	37%	85%	26%	32%	46%
#20 =>	33%	78%	20%	24%	41%
#40 =>	30%	72%	15%	18%	37%
#60 =>	28%	68%	11%	15%	34%
#100 =>	25%	62%	8%	12%	30%
#200 =>	20.0%	52.3%	5.3%	8.4%	26.3%
Analysis of Data					
D10 size =>			0.211 mm	0.107 mm	
D30 size =>	0.398 mm		2.968 mm	1.701 mm	0.140 mm
D50 size =>	11.988 mm		11.409 mm	7.311 mm	4.071 mm
D60 size =>	30.302 mm	0.130 mm	15.000 mm	16.228 mm	13.338 mm
Coeff. of Uniformity, Cu =			71.17	152.21	
Coeff. of Curvature, Cc =			2.79	1.67	
Gravel (+#4) percentage =	57%	8%	65%	57%	49%
Sand percentage =	23.0%	39.6%	29.3%	34.3%	24.6%
Fines percentage =	20.0%	52.3%	5.3%	8.4%	26.3%
Unified Soil Class Symbol =	GM	ML	GW-GM	GW-GM	GM



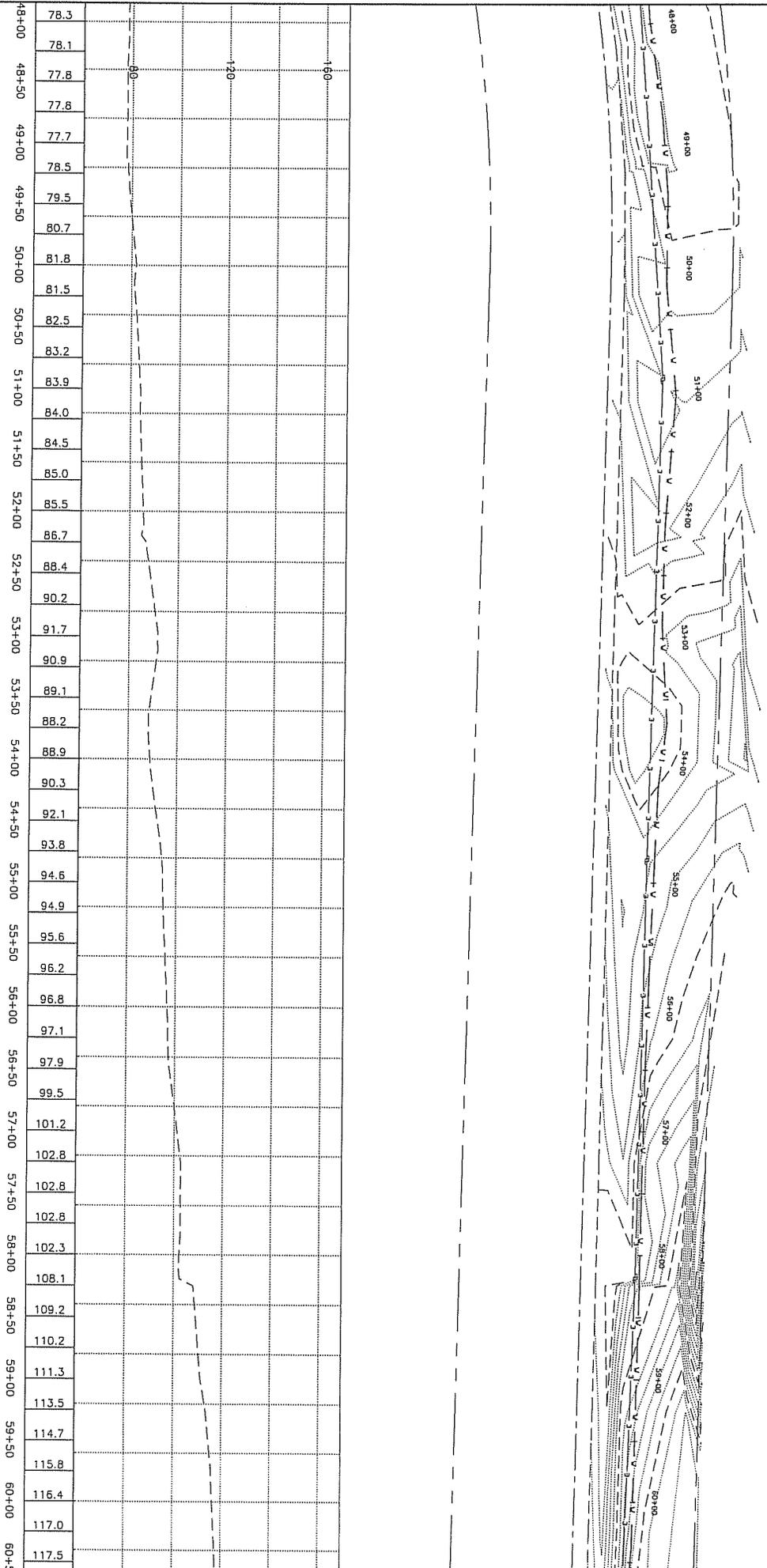
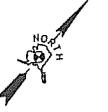
Appendix F

Survey Plan & Profile Sheets

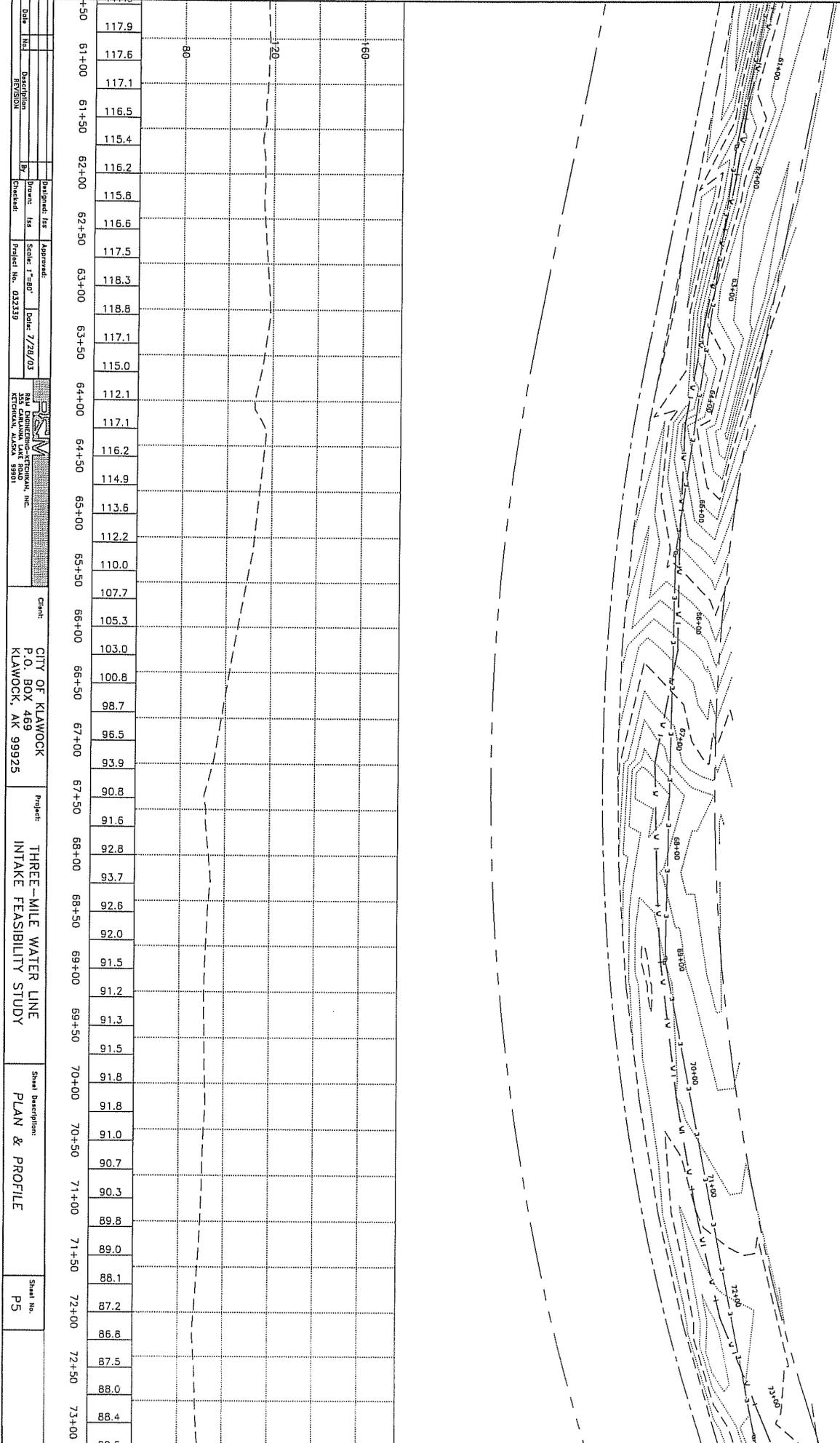


Date: _____ Drawn: LSA Checked: _____	Designed: LSA Scale: AS NOTED Project No.: 022339	Approved: _____ Date: 7/28/03 Project No.: 022339	Client: CITY OF KILWOCK P.O. BOX 469 KILWOCK, AK 99925	Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	Sheet Description: PLAN & PROFILE	Sheet No.: P1
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No. 1 Description: REVISION	By: _____ Checked: _____	Approved: _____ Date: 7/28/03	Client: CITY OF KILWOCK P.O. BOX 469 KILWOCK, AK 99925	Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	Sheet Description: PLAN & PROFILE	Sheet No.: P1
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Prepared: iss Drawn: iss Checked: 022319		Approved: Scale: 1"=80' Date: 7/28/03	
Description: REVISION		Project No. 022319	
Client: CITY OF KILBOCK P.O. BOX 469 KILBOCK, AK 99925		Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	
Sheet Description: PLAN & PROFILE		Sheet No. P4	



Station	Elevation
61+00	117.9
61+10	117.6
61+20	117.1
61+30	116.5
61+40	115.4
61+50	116.2
62+00	115.8
62+10	116.6
62+20	117.5
62+30	118.3
62+40	118.8
62+50	117.1
63+00	115.0
63+10	112.1
63+20	117.1
63+30	116.2
63+40	114.9
63+50	113.6
64+00	112.2
64+10	110.0
64+20	107.7
64+30	105.3
64+40	103.0
64+50	100.8
65+00	98.7
65+10	96.5
65+20	93.9
65+30	90.8
65+40	91.6
65+50	92.8
66+00	93.7
66+10	92.6
66+20	92.0
66+30	91.5
66+40	91.2
66+50	91.3
67+00	91.5
67+10	91.8
67+20	91.8
67+30	91.0
67+40	90.7
67+50	90.3
68+00	89.8
68+10	89.0
68+20	88.1
68+30	87.2
68+40	86.8
68+50	87.5
69+00	88.0
69+10	88.4
69+20	88.5

Date: _____
 No. _____
 Description: _____
 12/20/03

Drawn: IAS
 Checked: _____
 Approved: _____
 Scale: 1"=80'
 Date: 7/26/03
 Project No. 023339

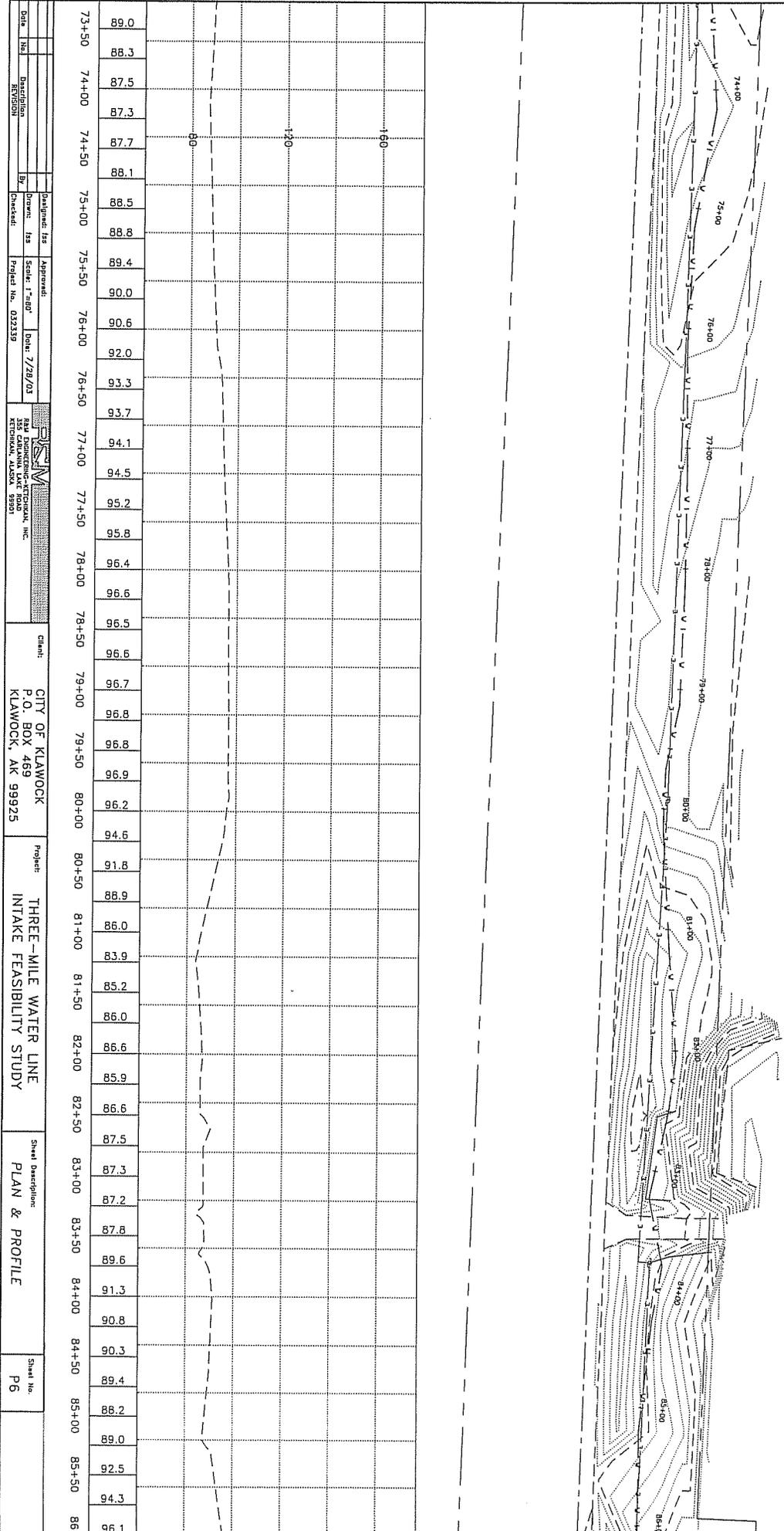
814
 155 CAROLINA LANE ROAD
 KLEWOCK, ALASKA 99501

CITY OF KILWOCK
 P.O. BOX 469
 KILWOCK, AK 99525

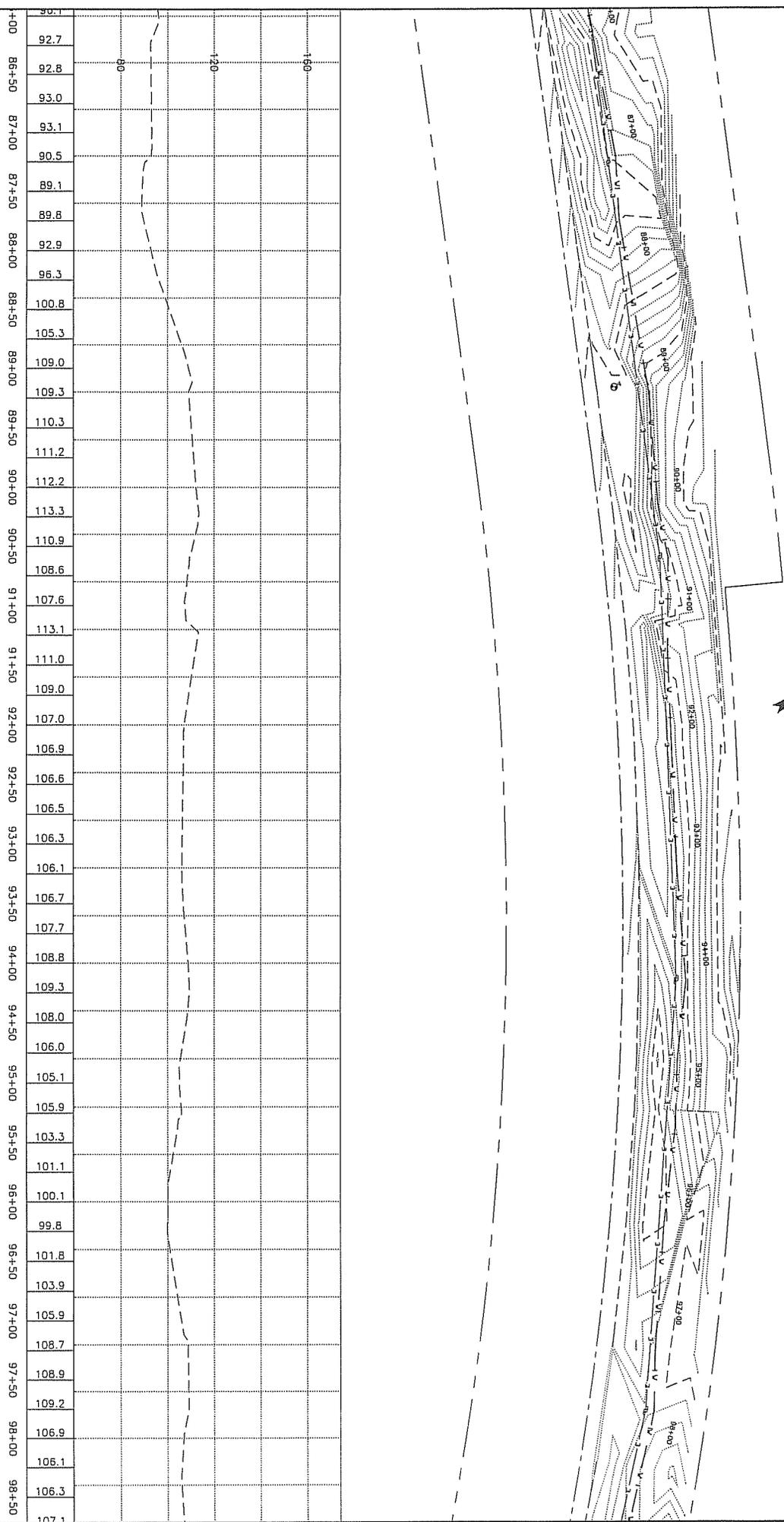
Project:
 THREE-MILE WATER LINE
 INTAKE FEASIBILITY STUDY

Sheet Description:
 PLAN & PROFILE

Sheet No.
 P5

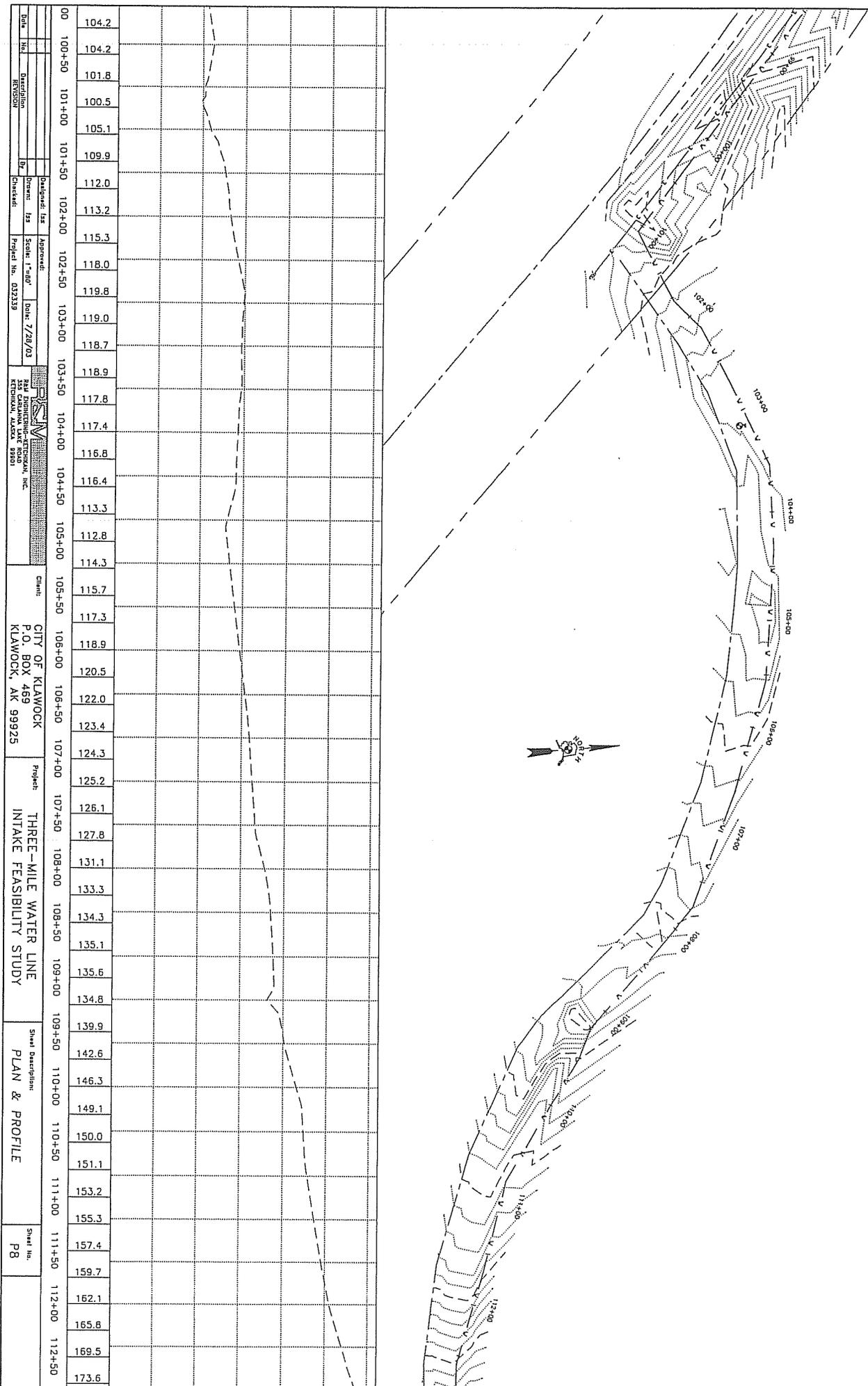


Date	Drawn	Checked	Designed	Appr'd	Scale	Sheet	Client	Project	Sheet No.
	By	By	By		1"=80'	2/28/03	CITY OF KILWOCK P.O. BOX 489 KILWOCK, AK 99925	THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	P6
Description REVISION			Approved		Project No. 023239		KETCHIKAN, ALASKA 99901		



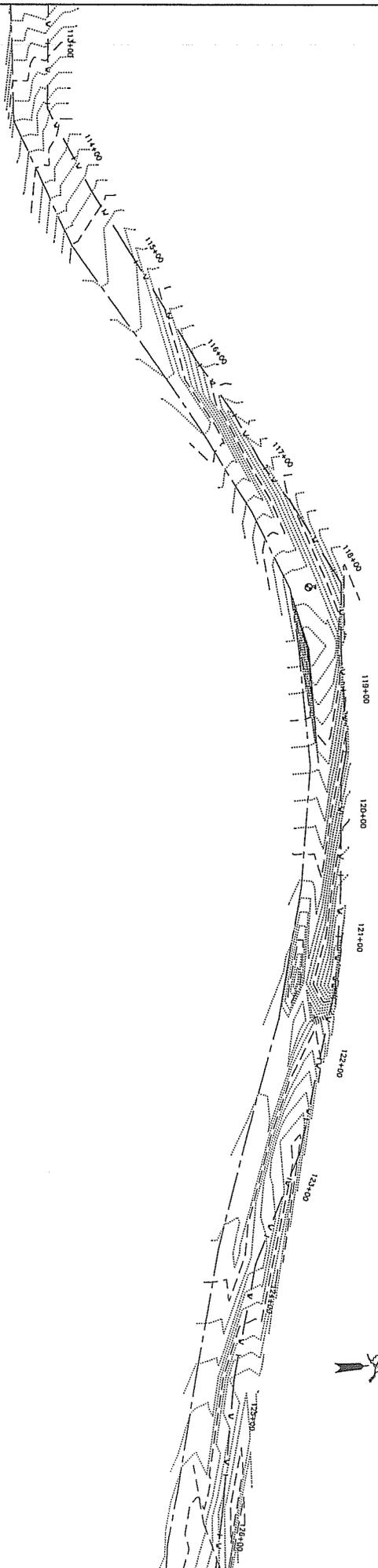
86+00	86+50	87+00	87+50	88+00	88+50	89+00	89+50	90+00	90+50	91+00	91+50	92+00	92+50	93+00	93+50	94+00	94+50	95+00	95+50	96+00	96+50	97+00	97+50	98+00	98+50																								
92.7	92.8	93.1	90.5	89.1	89.8	92.9	96.3	100.8	105.3	109.0	109.3	110.3	111.2	112.2	113.3	110.9	108.6	107.6	113.1	111.0	109.0	107.0	106.9	106.6	106.5	106.3	106.1	106.7	107.7	108.8	109.3	108.0	106.0	105.1	105.9	103.3	101.1	100.1	99.8	101.8	103.9	105.9	108.7	108.9	109.2	106.9	106.1	106.3	107.1

Date: _____ Title: _____ Description: _____ Revision: _____		Drawn: _____ By: _____ Checked: _____		Approved: _____ Scale: 1"=50' Project No. 032339		Date: 7/28/03 355 COLUMBIA LANE KETCHIKAN, ALASKA 99901		Client: CITY OF KILAWOCK P.O. BOX 489 KILAWOCK, AK 99925		Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY		Sheet Description: PLAN & PROFILE		Sheet No. P7	
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00	100+50	101+00	101+50	102+00	102+50	103+00	103+50	104+00	104+50	105+00	105+50	106+00	106+50	107+00	107+50	108+00	108+50	109+00	109+50	110+00	110+50	111+00	111+50	112+00	112+50																										
	104.2	104.2	101.8	100.5	105.1	109.9	112.0	113.2	115.3	118.0	119.8	119.0	118.7	118.9	117.8	117.4	116.8	116.4	113.3	112.8	114.3	115.7	117.3	118.9	120.5	122.0	123.4	124.3	125.2	126.1	127.8	131.1	133.3	134.3	135.1	135.6	134.8	139.9	142.6	146.3	149.1	150.0	151.1	153.2	155.3	157.4	159.7	162.1	165.8	169.5	173.6

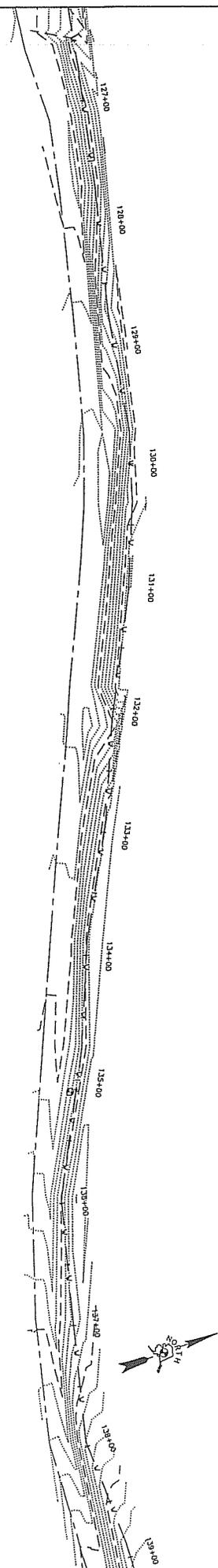
Date	Drawn	Checked	Approved	Scale	Date	Client	Project	Sheet Description	Sheet No.
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RAJ ENGINEERING-KILWOOD, INC. KILWOOD, ALASKA 99001									



Station	Elevation
177.9	
182.1	
186.4	
190.3	
193.5	
197.0	
200.7	
203.0	
204.3	
207.5	
210.7	
213.9	
217.5	
221.1	
224.1	
226.2	
226.4	
228.3	
231.1	
233.0	
235.0	
234.5	
233.8	
234.3	
236.4	
238.5	
242.4	
242.7	
246.7	
250.8	
253.4	
255.6	
257.6	
257.5	
252.2	
246.8	
250.2	
253.7	
256.2	
258.3	
259.7	
256.6	
254.1	
253.2	
256.7	
260.1	
263.6	
266.2	
264.7	
264.6	
265.7	

Date: _____
 No: _____
 Description: _____
 Revision: _____
 Drawn: _____
 Checked: _____
 Approved: _____
 Scale: 1"=80'
 Date: 7/26/03
 Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY
 Client: CITY OF KILWICK, P.O. BOX 489, KILWICK, AK 99925
 Sheet Description: PLAN & PROFILE
 Sheet No.: pg



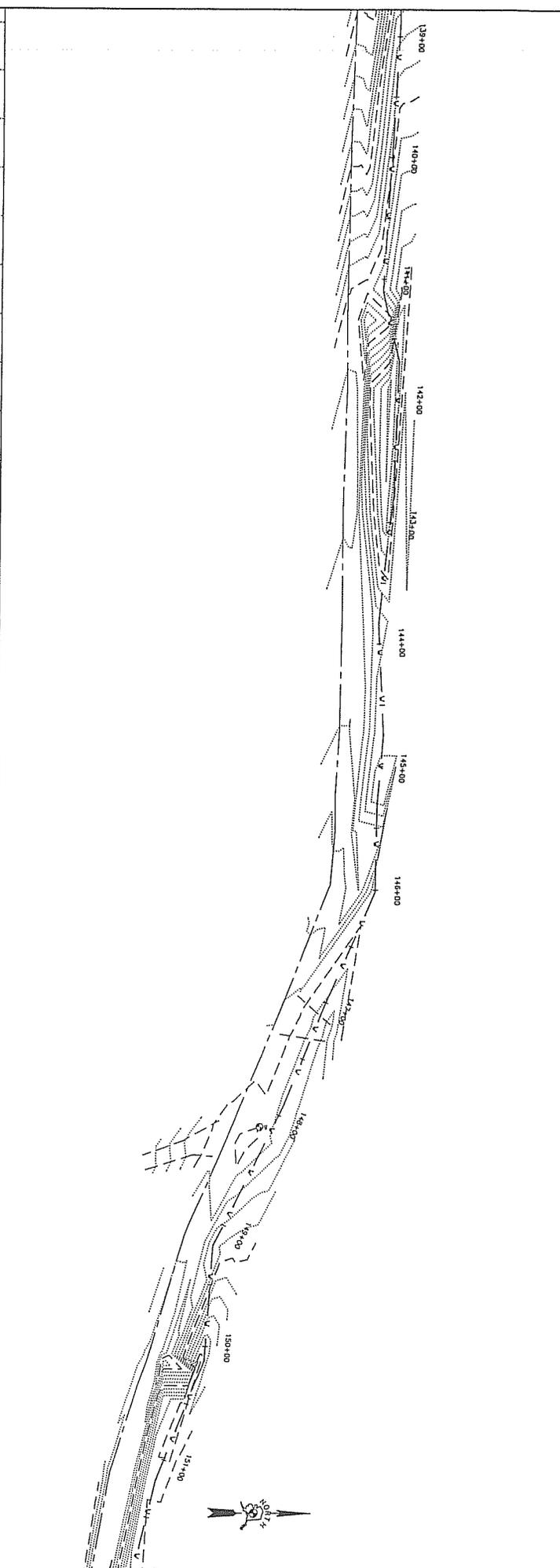


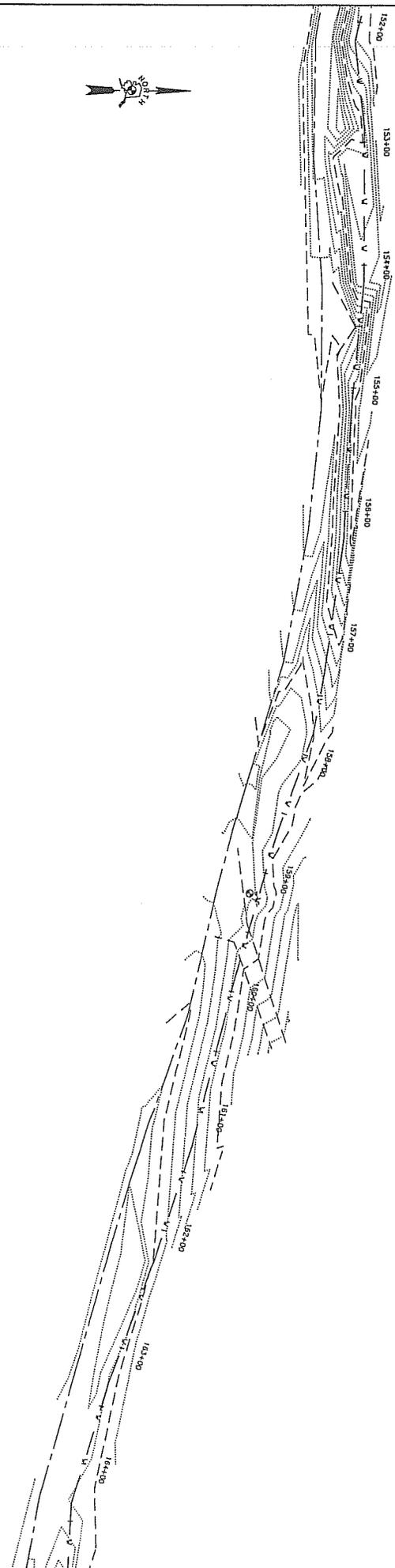
Station	Elevation
127+00	269.0
	268.1
	268.3
128+00	271.1
	273.8
	275.5
	276.6
129+00	274.9
	274.0
	274.8
	276.1
130+00	278.9
	279.0
	280.8
	282.9
131+00	283.6
	282.7
	281.7
	280.7
132+00	273.8
	271.0
	275.6
	280.3
133+00	281.5
	281.4
134+00	281.3
	280.5
	279.6
	278.5
135+00	277.7
	278.2
	278.8
	279.3
136+00	280.0
	280.4
	281.8
	283.2
	284.4
137+00	284.8
	287.2
	289.6
138+00	292.1
	294.5
	297.5
	300.6
	303.3
	305.6

Date: _____ No: _____ Description: _____ DIVISION: _____	Prepared by: _____ Checked: _____ Scale: 1"=80' Project No. 027339	Approved: _____ Date: 7/28/01 	Client: _____ CITY OF KILWOCK P.O. BOX 469 KILWOCK, AK 99925	Project: _____ THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	Sheet Description: _____ PLAN & PROFILE	Sheet No. _____ P10
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Date	Drawn	By	Checked	Approved	Scale	Date	Client	Project	Sheet Description	Sheet No.
	IS	IS	IS	IS	1"=200'	7/28/03	CITY OF KILWOCK P.O. BOX 469 KILWOCK, AK 99925	THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	PLAN & PROFILE	P11
Description		Drawn		Approved		Client		Project		Sheet Description
REVISION		IS		IS		CITY OF KILWOCK		THREE-MILE WATER LINE		PLAN & PROFILE
REVISION		IS		IS		P.O. BOX 469		INTAKE FEASIBILITY STUDY		P11
REVISION		IS		IS		KILWOCK, AK 99925				

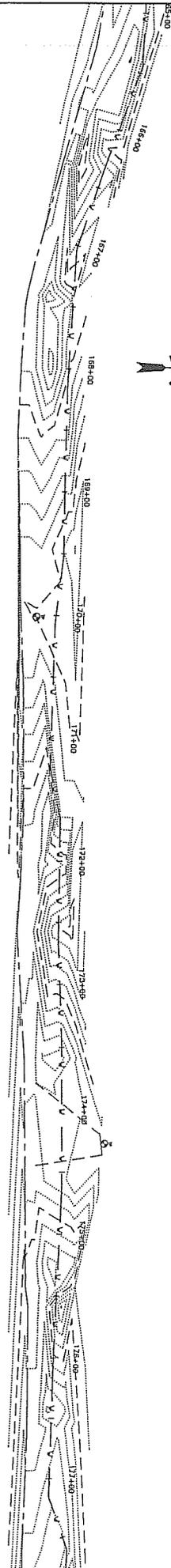
139+00	305.6	240	320
	307.3		
	308.0		
	308.6		
	309.4		
	310.4		
	311.3		
	312.2		
	313.4		
	310.7		
	320.4		
	323.1		
	323.0		
	322.2		
	321.5		
	320.7		
	321.4		
	322.3		
	319.1		
	315.8		
	315.5		
	316.4		
	317.2		
	317.6		
	318.2		
	318.5		
	313.5		
	314.9		
	318.5		
	319.6		
	320.6		
	321.4		
	322.3		
	322.6		
	322.7		
	322.6		
	322.2		
	321.3		
	322.8		
	324.4		
	326.2		
	327.1		
	329.1		
	335.2		
	339.0		
	339.4		
	340.3		
	340.2		
	340.0		
	339.9		
	340.0		





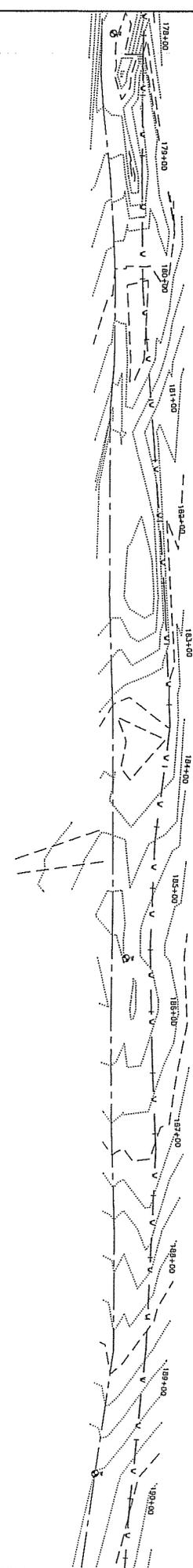
Station	Elevation
152+00	338.3
	338.6
	333.5
	331.2
153+00	330.8
	332.5
	333.1
	334.1
154+00	335.0
	331.4
	324.3
	325.3
155+00	328.2
	327.2
	327.4
	327.0
156+00	326.6
	326.2
	325.1
	321.8
157+00	318.6
	315.4
	312.6
	310.4
158+00	308.8
	309.0
	308.9
	309.0
159+00	308.4
	305.5
	307.2
	308.9
160+00	308.1
	307.5
	307.3
	307.2
161+00	306.5
	305.5
	304.2
162+00	302.9
	301.5
	300.2
	299.3
	298.4
163+00	298.1
	298.4
	297.7
	297.2
164+00	297.7
	298.1
	297.0

Date: _____ No: _____ Description: _____ Revision: _____ By: _____ Checked: _____	Designed by: _____ Drawn: HAS Scale: 1"=80' Date: 7/29/03 Project No: 032319	 S&M S&M ENGINEERING-KETCHIKAN, INC. KETCHIKAN, ALASKA 99901	Client: CITY OF KAWOOCK P.O. BOX 469 KAWOOCK, AK 99925	Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	Sheet Description: PLAN & PROFILE	Sheet No: P12
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Station	Elevation
164+00	294.3
164+00	295.9
164+00	297.2
164+00	295.8
166+00	295.7
166+00	298.1
166+00	295.2
166+00	296.8
167+00	298.6
167+00	301.0
167+00	298.6
168+00	299.1
168+00	299.4
168+00	300.7
168+00	301.2
168+00	304.3
168+00	307.7
168+00	310.1
168+00	311.9
168+00	310.1
170+00	310.8
170+00	311.0
170+00	308.2
171+00	307.0
171+00	306.2
171+00	301.4
171+00	303.6
171+00	303.6
172+00	298.2
172+00	302.5
172+00	308.0
172+00	306.2
173+00	301.6
173+00	297.1
173+00	292.7
173+00	294.7
174+00	295.3
174+00	295.3
174+00	295.6
174+00	292.5
175+00	288.1
175+00	284.1
175+00	289.6
175+00	292.8
176+00	289.4
176+00	284.5
176+00	282.9
177+00	284.6
177+00	283.5
177+00	282.0
177+00	281.9

Date	Drawn	Checked	Approved	Scale	Date	Client	Project	Sheet Description	Sheet No.
				1"=100'	7/28/03	CITY OF KILWOCK P.O. BOX 469 KILWOCK, AK 99925	THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	PLAN & PROFILE	P13



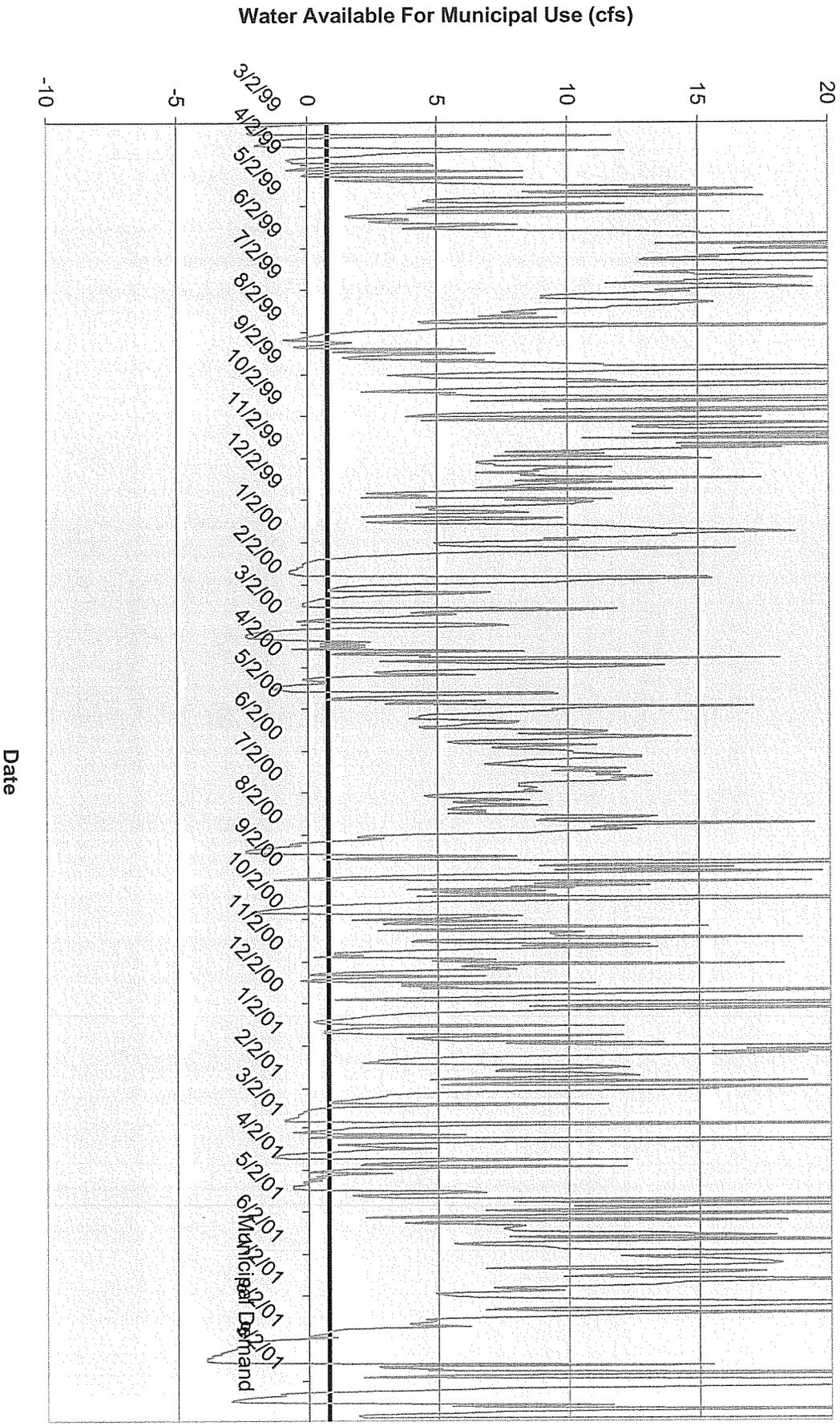
Station	Elevation
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178+00	288.0
178+00	285.9
178+00	286.1
178+00	285.7
178+00	284.6
178+00	284.1
178+00	285.1
178+00	289.3
180+00	290.1
180+00	289.6
180+00	290.2
180+00	291.7
181+00	294.5
181+00	297.3
181+00	296.6
181+00	296.3
182+00	296.6
182+00	296.7
182+00	296.9
182+00	297.0
183+00	297.7
183+00	299.4
183+00	299.9
183+00	300.2
184+00	301.1
184+00	302.2
184+00	303.3
184+00	304.8
185+00	305.7
185+00	306.6
185+00	306.8
185+00	305.6
186+00	305.4
186+00	306.3
186+00	307.3
186+00	308.3
187+00	309.6
187+00	310.9
187+00	312.0
187+00	313.2
188+00	315.0
188+00	317.1
188+00	319.2
189+00	321.3
189+00	323.2
189+00	325.1
189+00	327.0
189+00	328.8
190+00	329.7
190+00	330.2
190+00	330.0

Date: _____ No. _____ Description: _____ REVISION: _____ By: _____ Checked: _____	Drawn: JLS Scale: 1"=80' Project No. 032339	Approved: _____ Date: 7/29/03	Client: CITY OF KILWOCK P.O. BOX 469 KILWOCK, AK 99925	Project: THREE-MILE WATER LINE INTAKE FEASIBILITY STUDY	Sheet Description: PLAN & PROFILE	Sheet No. P14
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Appendix G

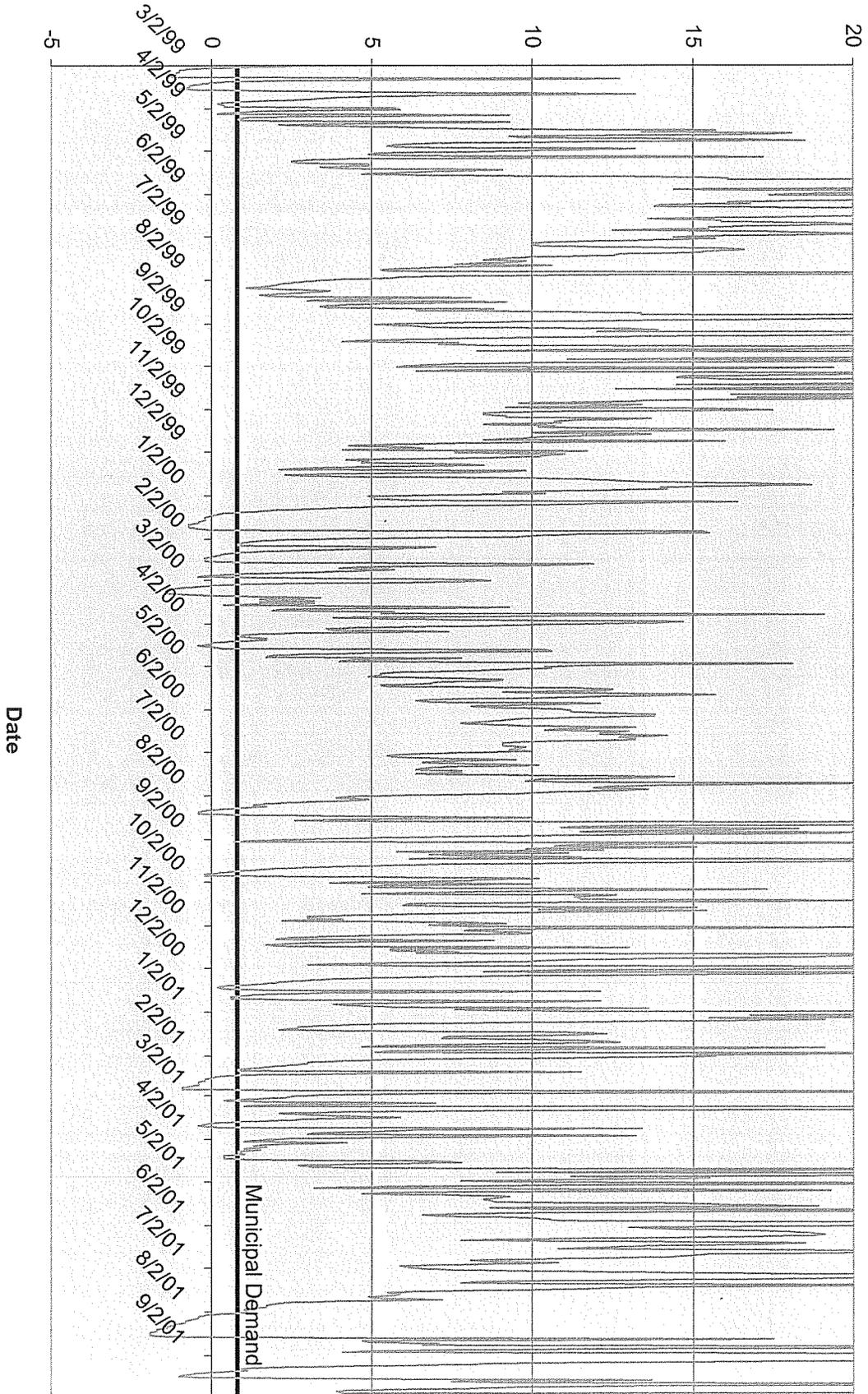
Hydrologic Data

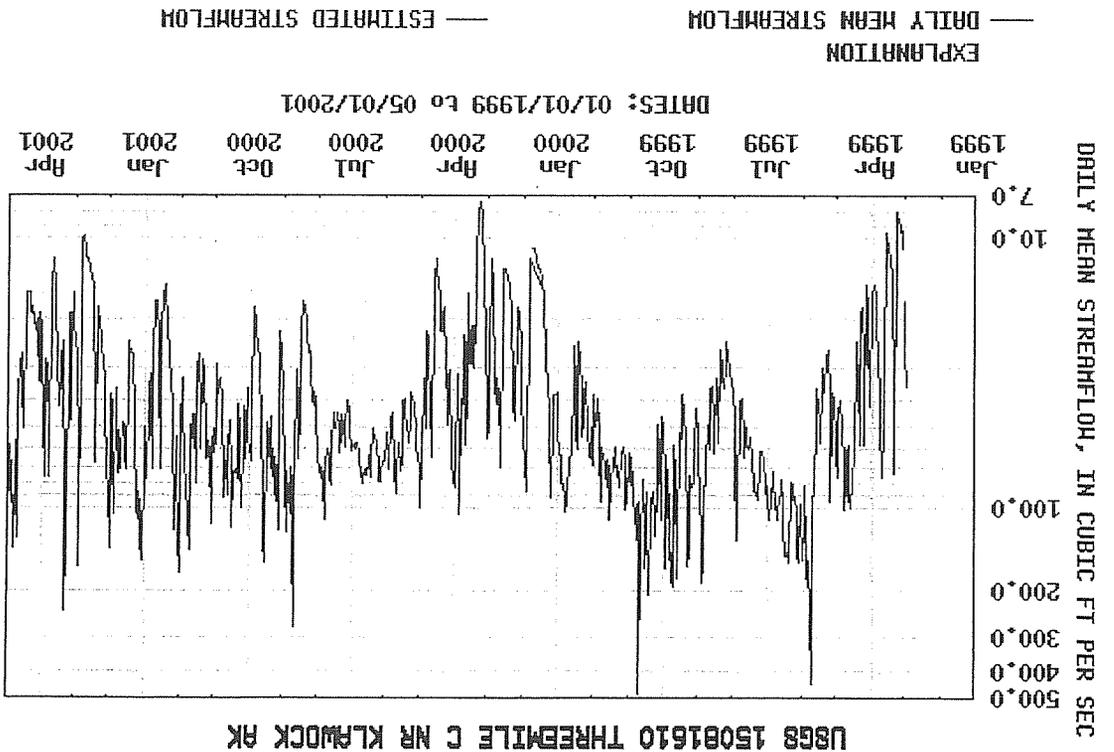
Water Available With Proposed ADF&G In-Stream Requirements



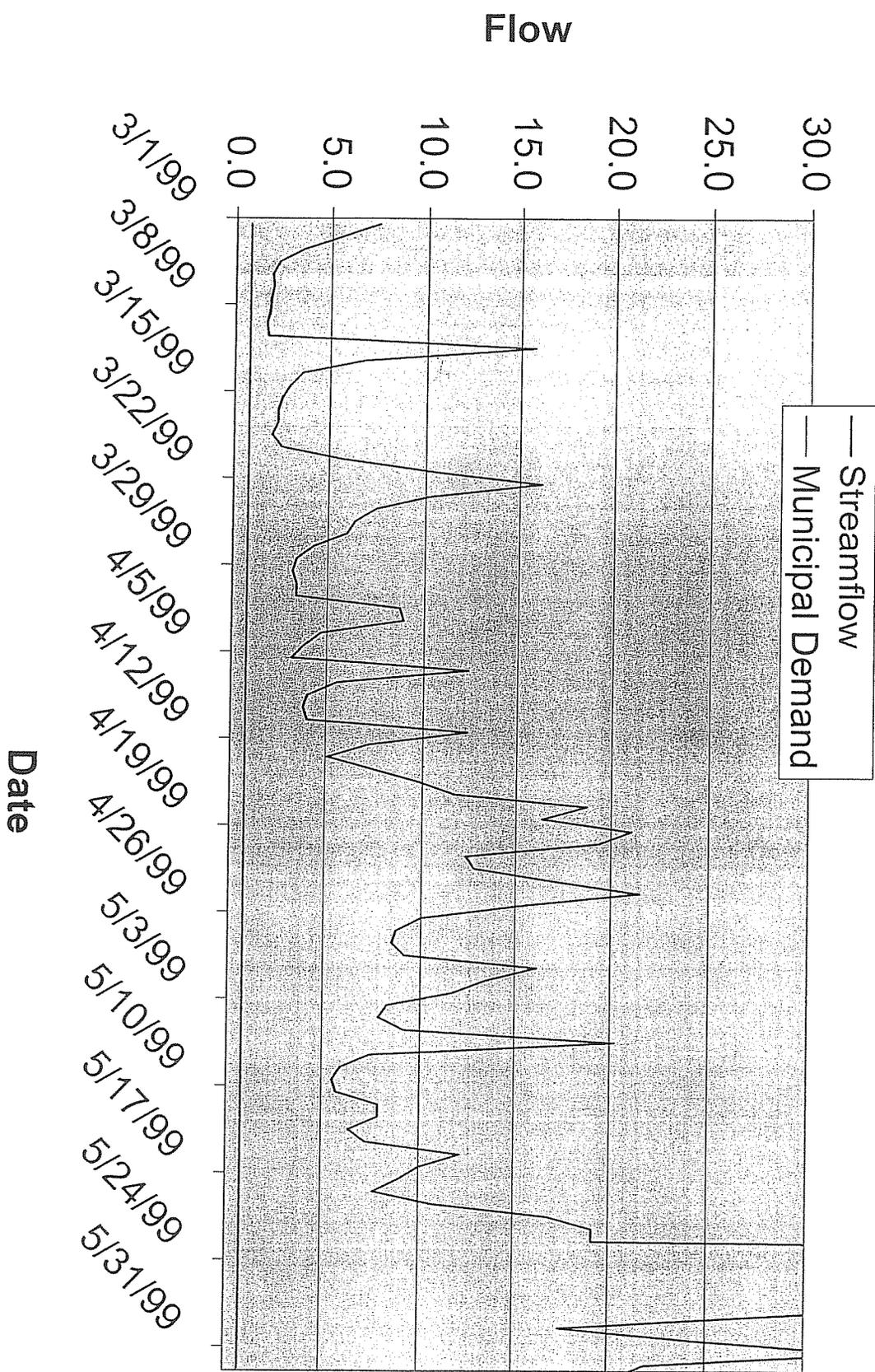
Water Available For Municipal Use (cfs)

Water Available With Proposed Klawock In-Stream Requirements

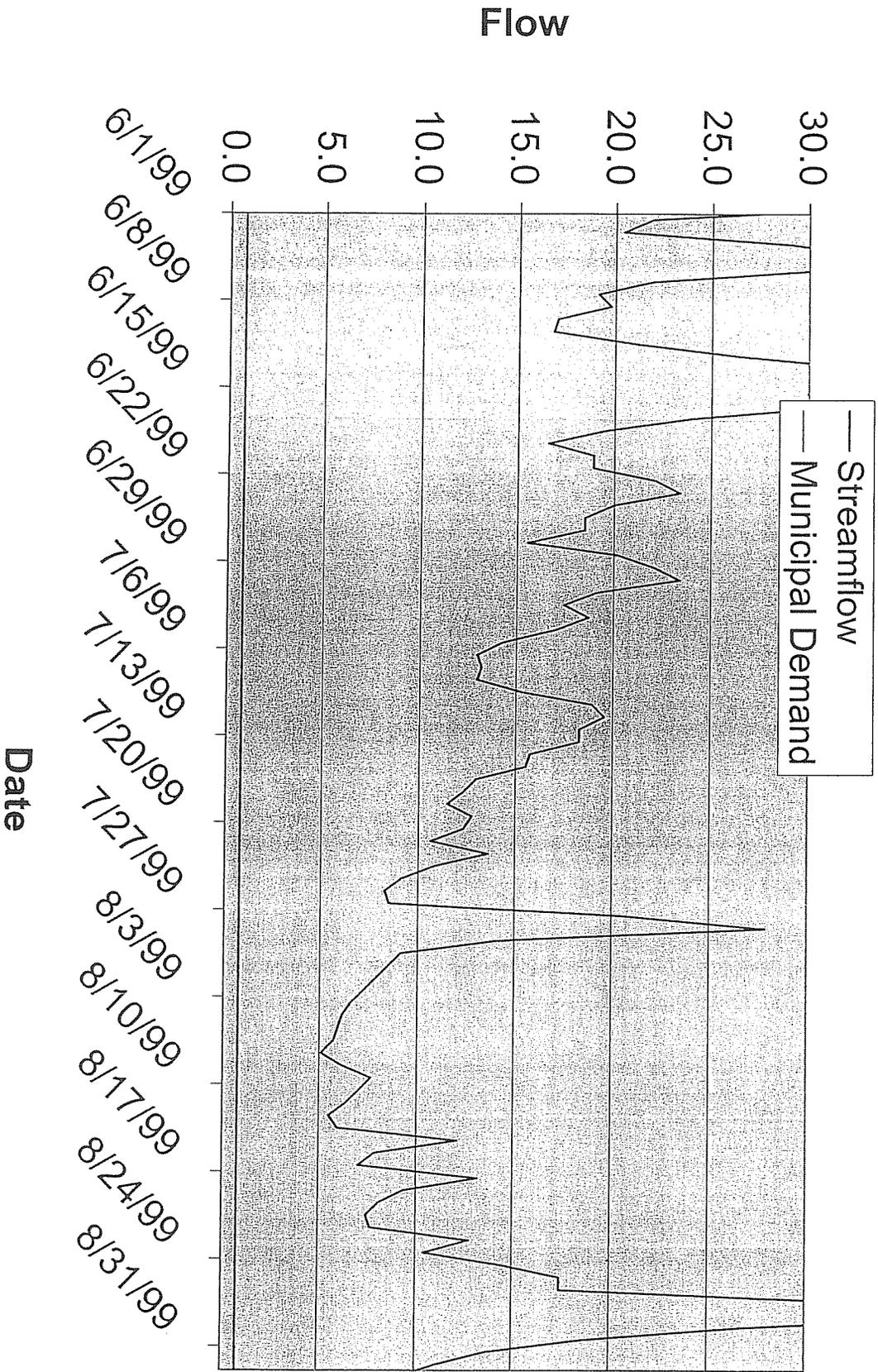




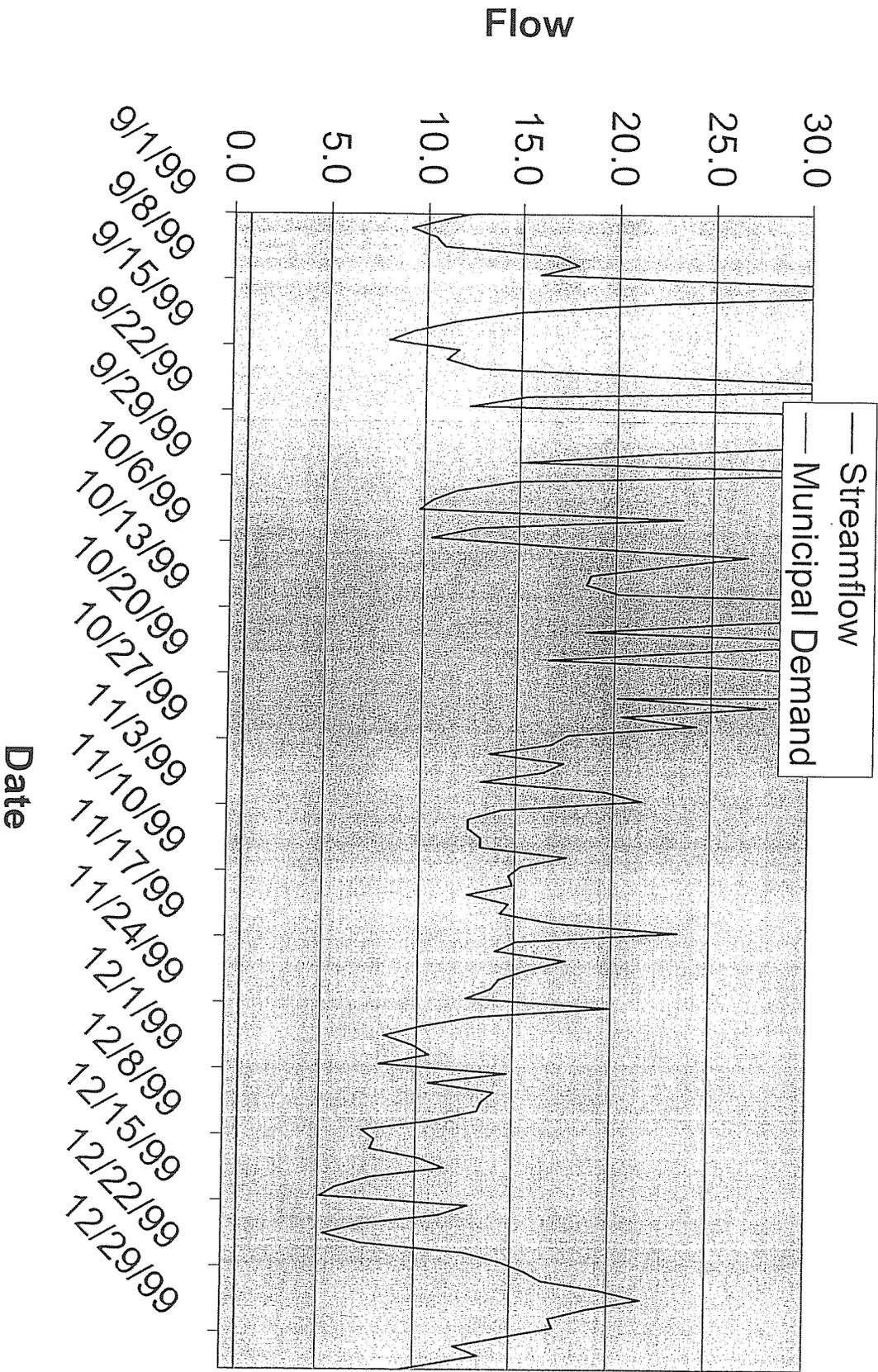
North Fork Threemile Creek Streamflow



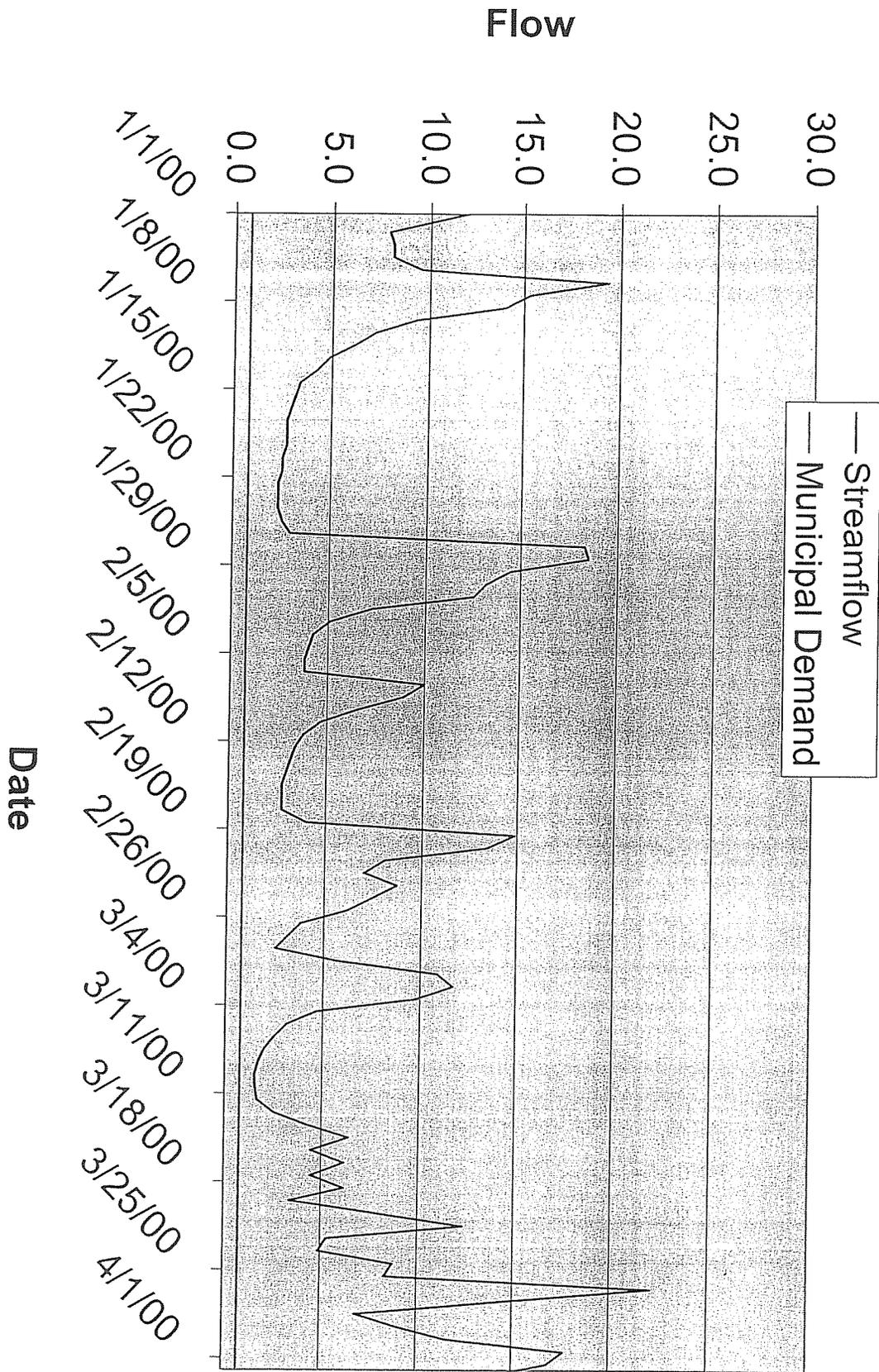
North Fork Threemile Creek Streamflow



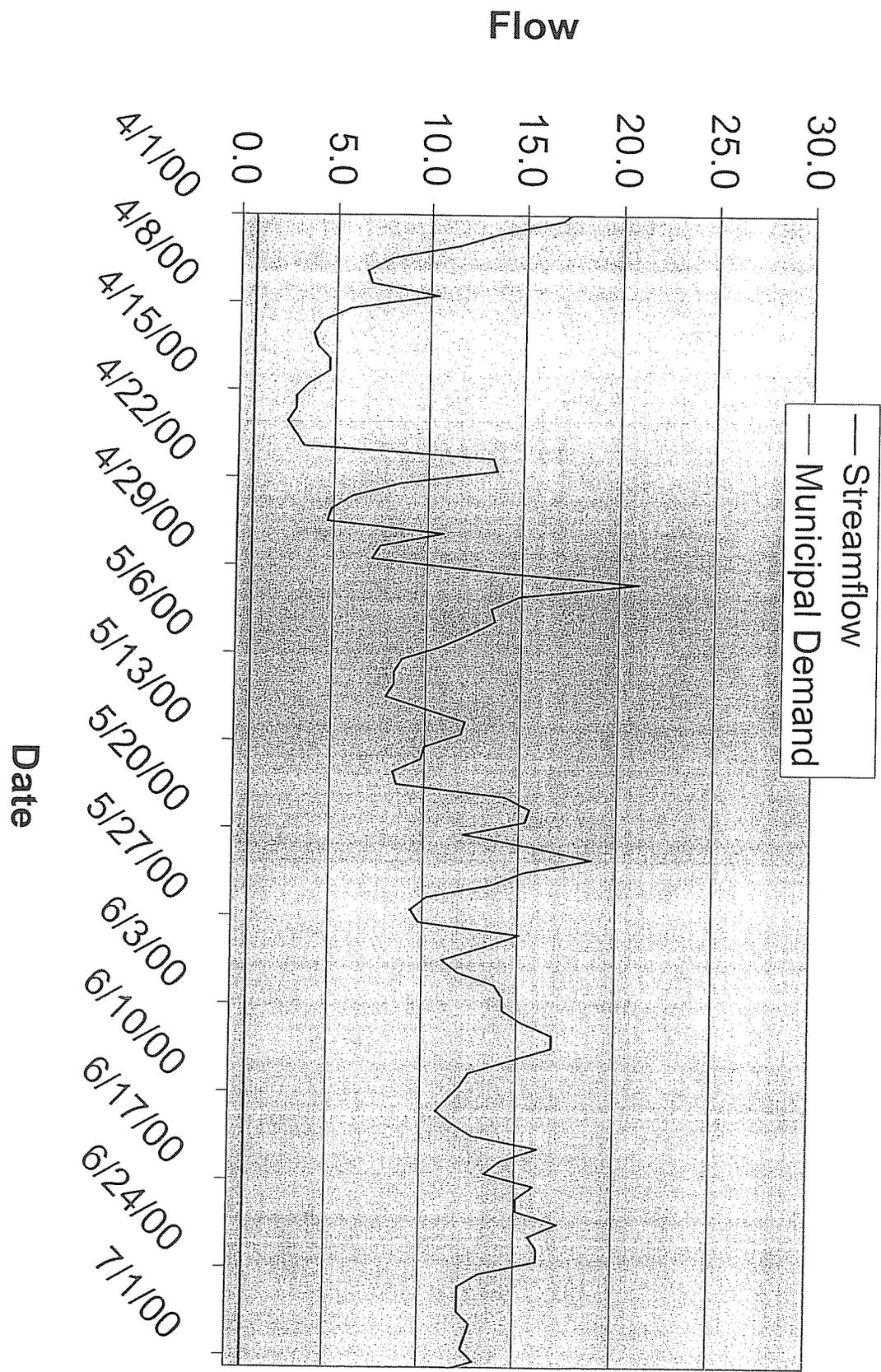
North Fork Threemile Creek Streamflow



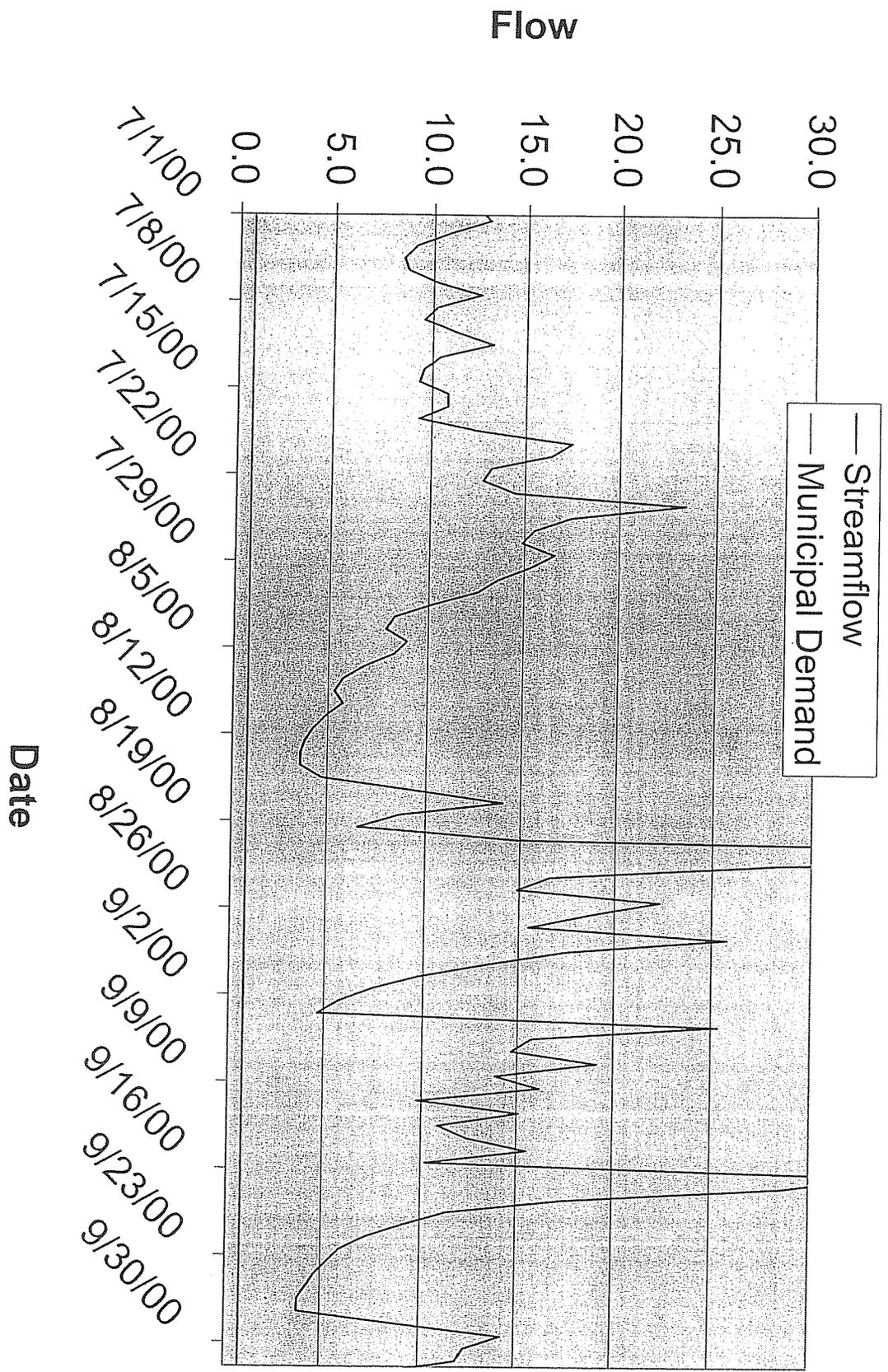
North Fork Threemile Creek Streamflow



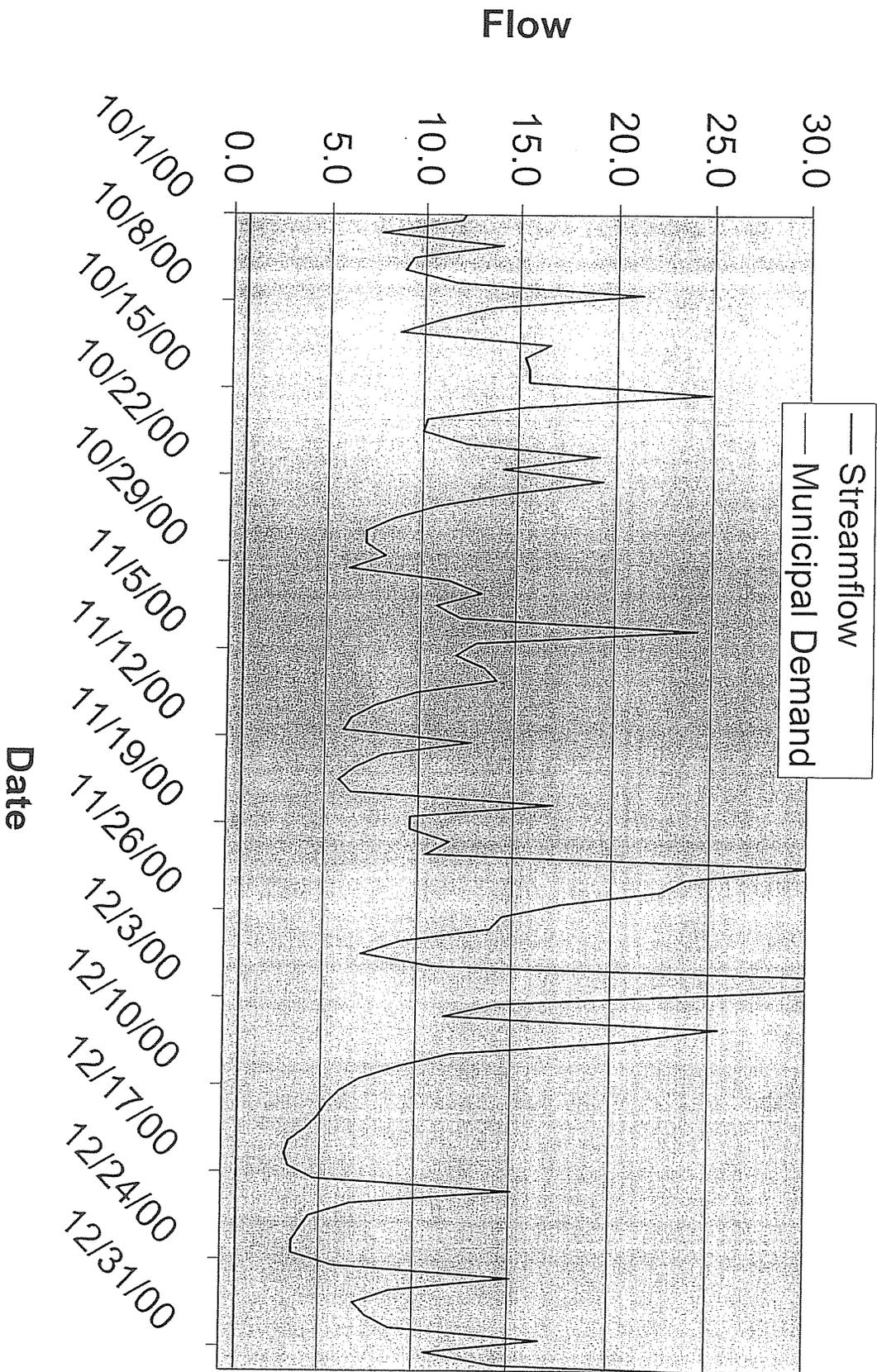
North Fork Threemile Creek Streamflow



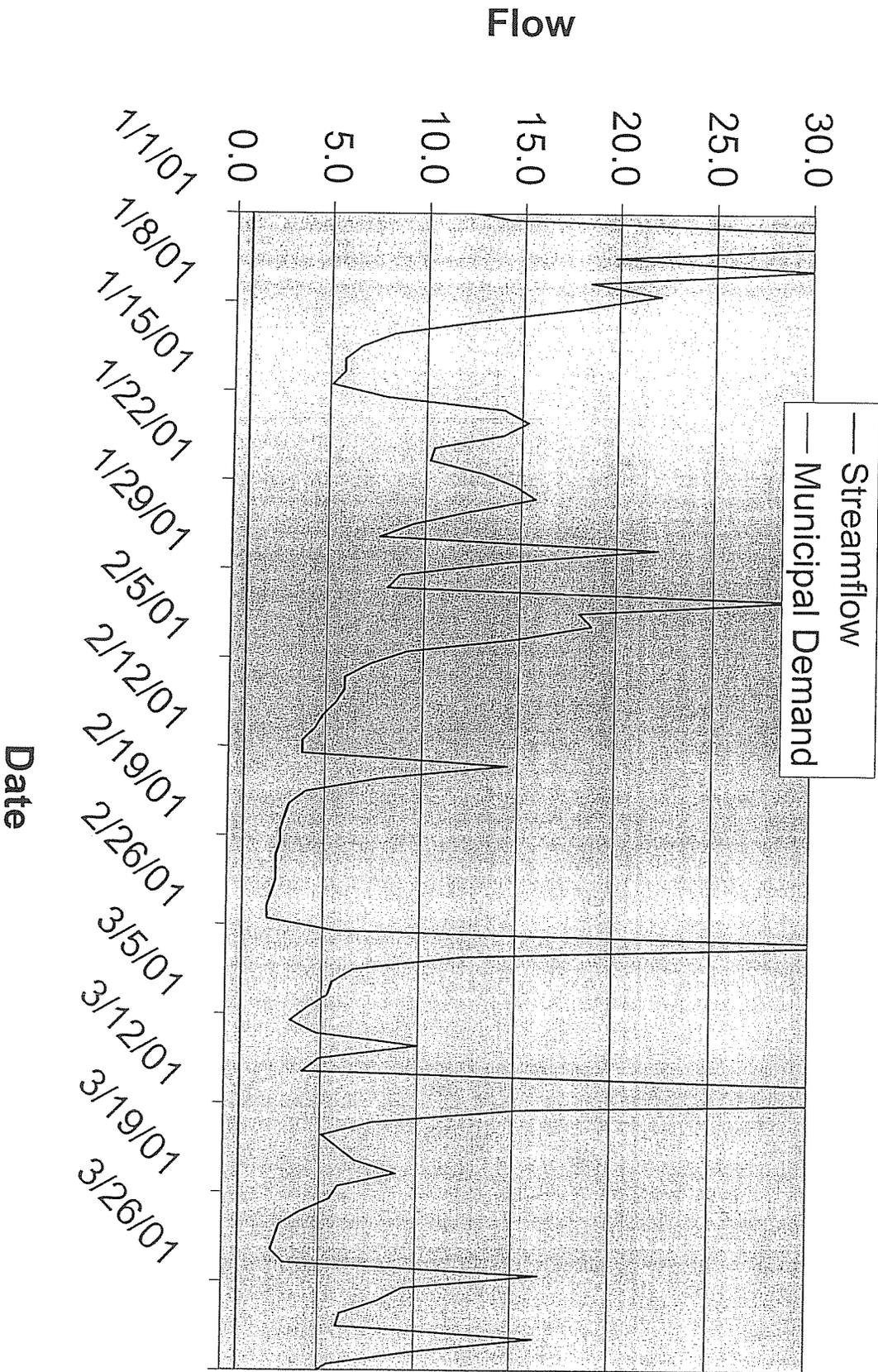
North Fork Threemile Creek Streamflow



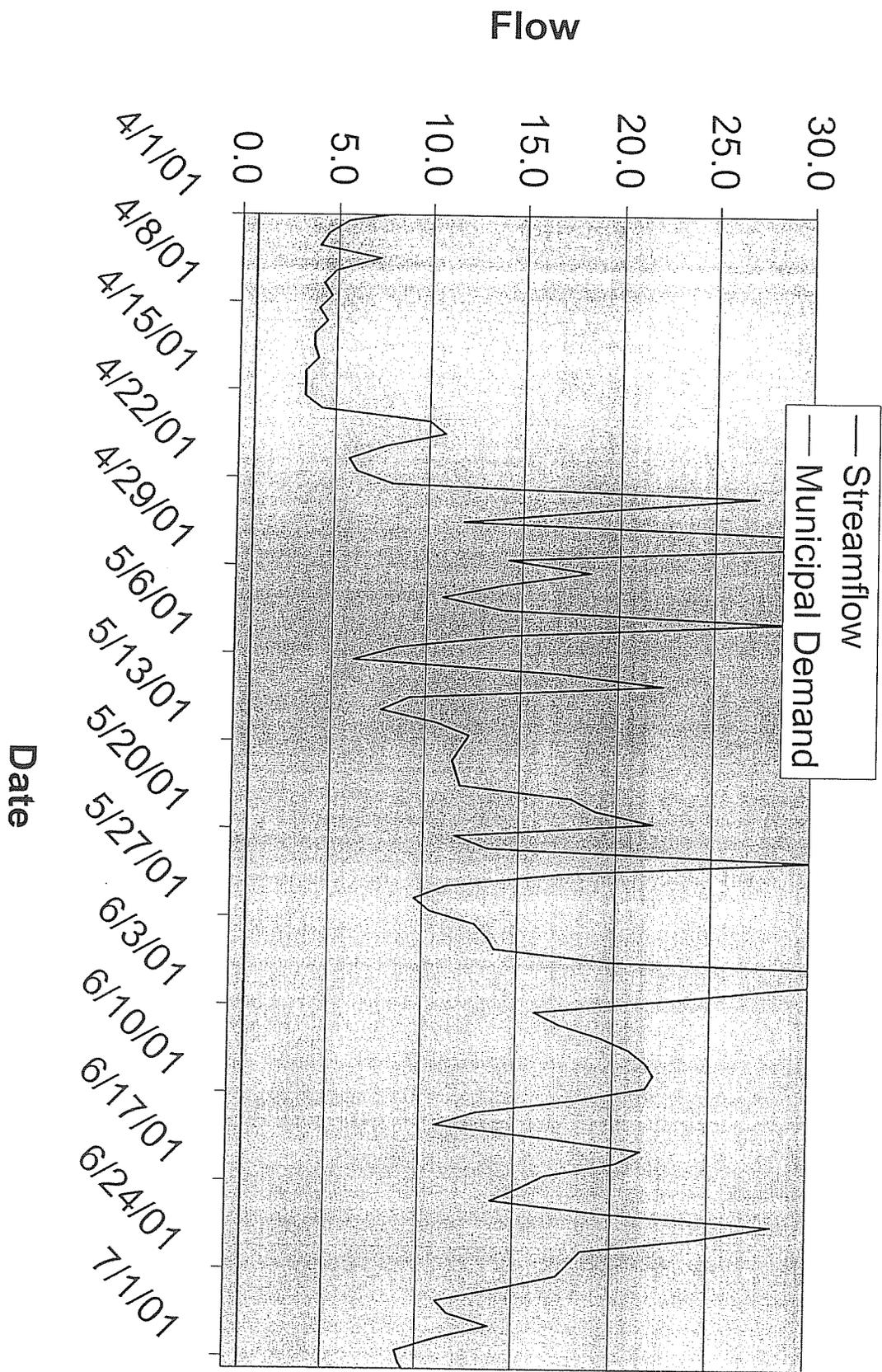
North Fork Threemile Creek Streamflow



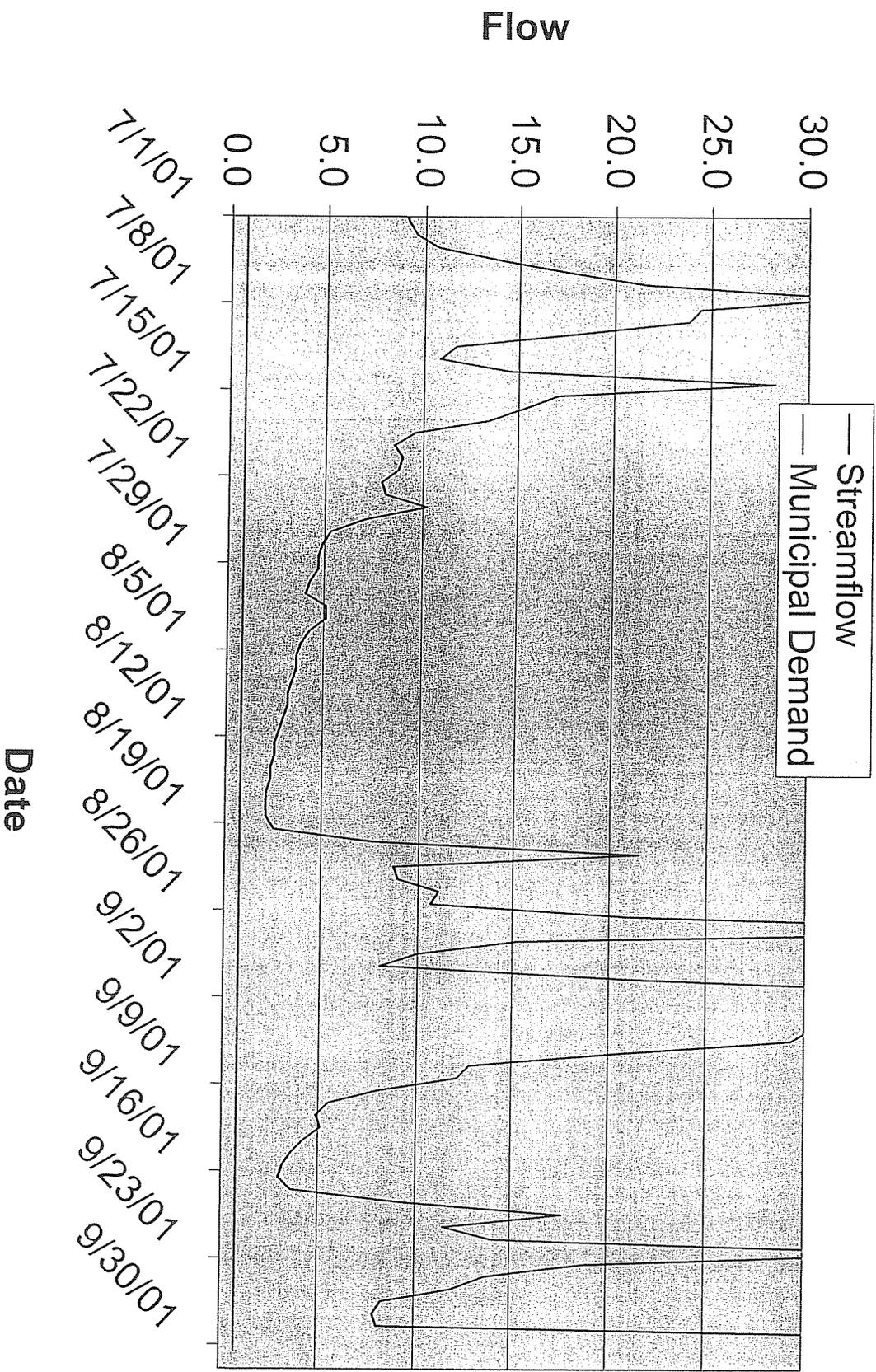
North Fork Threemile Creek Streamflow



North Fork Threemile Creek Streamflow



North Fork Threemile Creek Streamflow



Appendix H

Peak Flow Equations

Flood Flows

Peak flood flow values are required to size dam spillways and intake structures. Regional hydrologic models were developed for the Prince of Wales Island Area by Orsborn and Storm (1990). These equations were used for estimated peak flood flows.

The regional equations used were:

$$Q1F2 = 210A^{0.88}H^{0.44}$$

$$QPF2 = 4.54Q1F2^{0.89}$$

$$QPF50 = 1.07QPF2^{1.09}$$

$$QPF100 = 1.06QPF50$$

Q1F2 and Q1F50 are the 1-day, two-year and one-day, fifty-year flood flows respectively. QPF2, QPF50 and QPF100 are the two, fifty and one-hundred year peak flood flows respectively. All flows are in cfs.

A is the drainage basin area in square miles and H is the basin relief in miles. H is measured from the site to the upper continuous contour of the basin and not to the top of peaks.

For the project site the input values are:

A = 1.41 square miles

Project Site Elevation = 440 feet msl

Upper Divide Elevation = 2200 feet msl

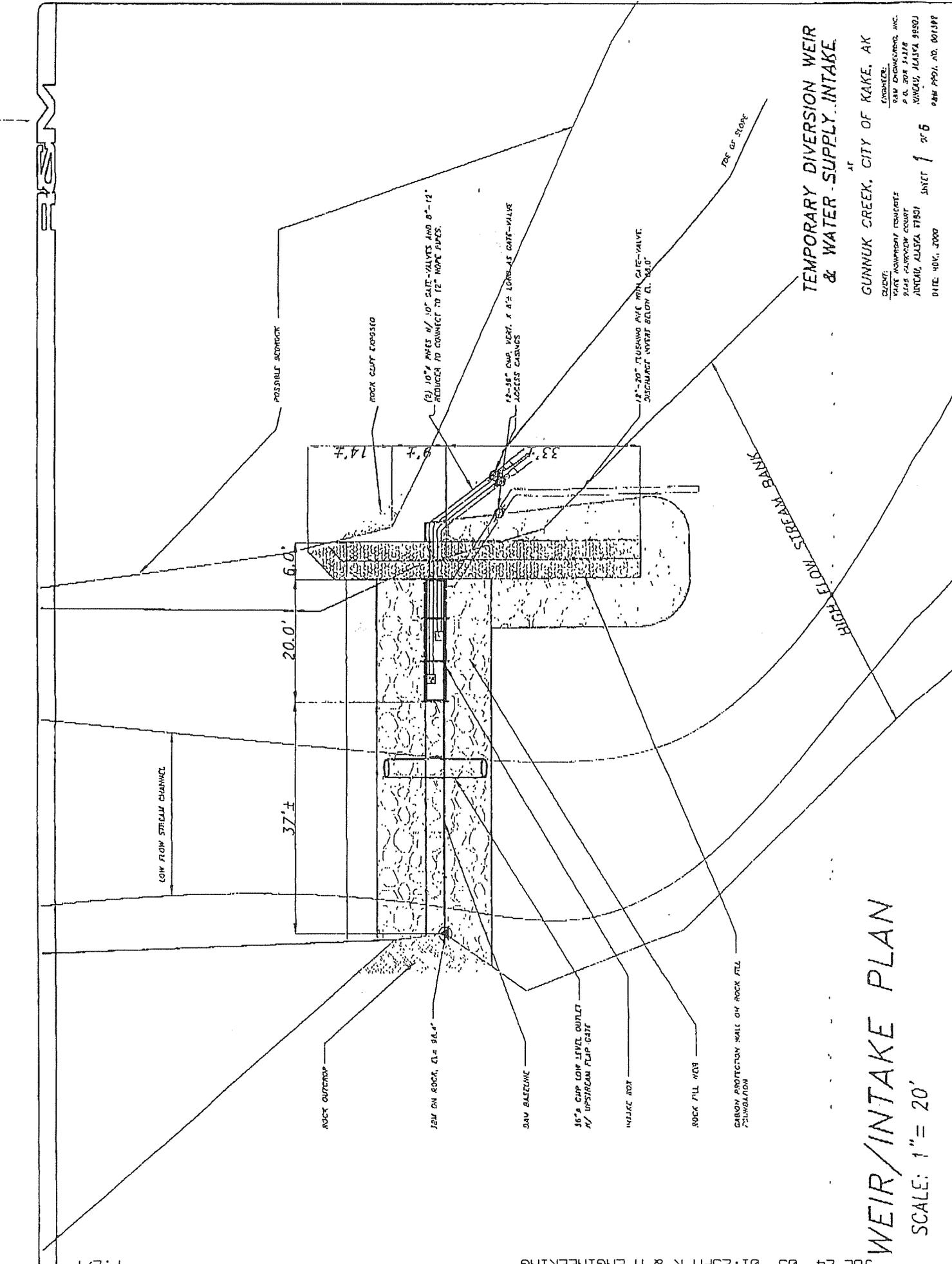
Basin Relief = 2200 feet – 440 feet = 1760 feet = 0.33 miles



Keta Engineering

Appendix I

Intake Gallery Sample Drawings



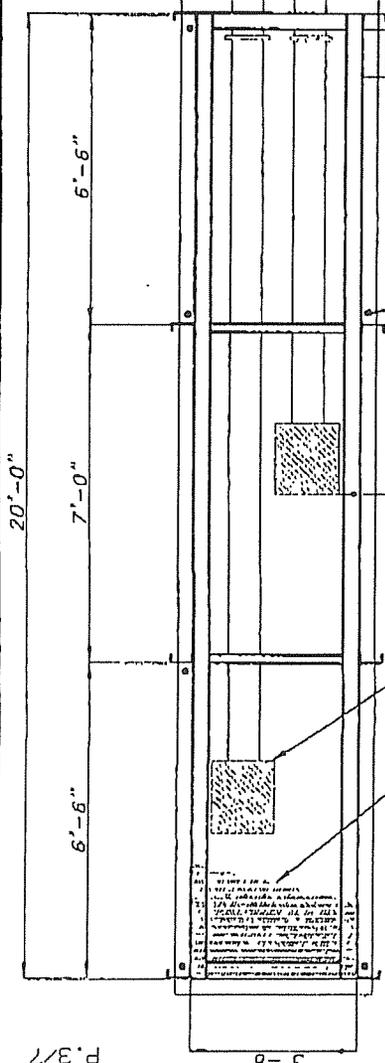
**TEMPORARY DIVERSION WEIR
& WATER SUPPLY INTAKE**

AT
GUNNUK CREEK, CITY OF KAKE, AK
 ENGINEER:
 G&M ENGINEERING, INC.
 945 COMMERCIAL BUILDING
 P. O. BOX 34378
 ANCHORAGE, ALASKA 99501
 DATE: NOV. 2000
 SHEET 1 OF 6

WEIR/INTAKE PLAN

SCALE: 1" = 20'

75 LF ± 10" Ø PIPE
W/(2) GATE VALVES, (2) 12" - 10"
REDUCER, FLANGE CONNECTIONS AT
INTAKE BOX



1/2" X 1/4" @ 1" O.C. STL.
TRASH RACK

(2) 18" Ø JOHNSON INTAKE
SCREENS

#8 REBAR ROCK BOLTS GROUTED INTO BEDROCK
(2) DOWNSTREAM, (4) UPSTREAM

50 LF ± 18" Ø FLUSHING PIPE
W/ GATE-VALVE & FLANGE CONNECTION
AT INTAKE BOX

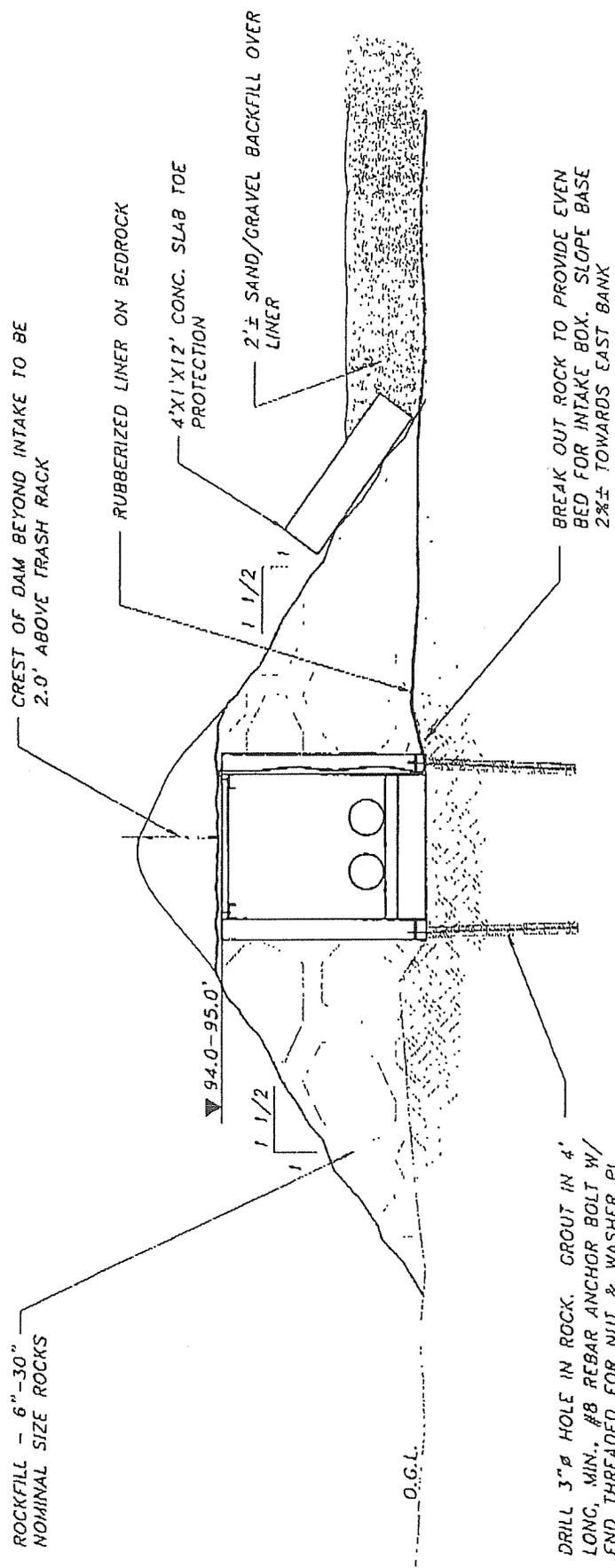
TEMPORARY DIVERSION WEIR
& WATER-SUPPLY INTAKE

INTAKE BOX - PLAN
SCALE: 1/4" = 1'

ENGINEER:
CUNNUK CREEK, CITY OF KAKE, AK
DATE: NOV. 1980
SHEET 2 OF 1

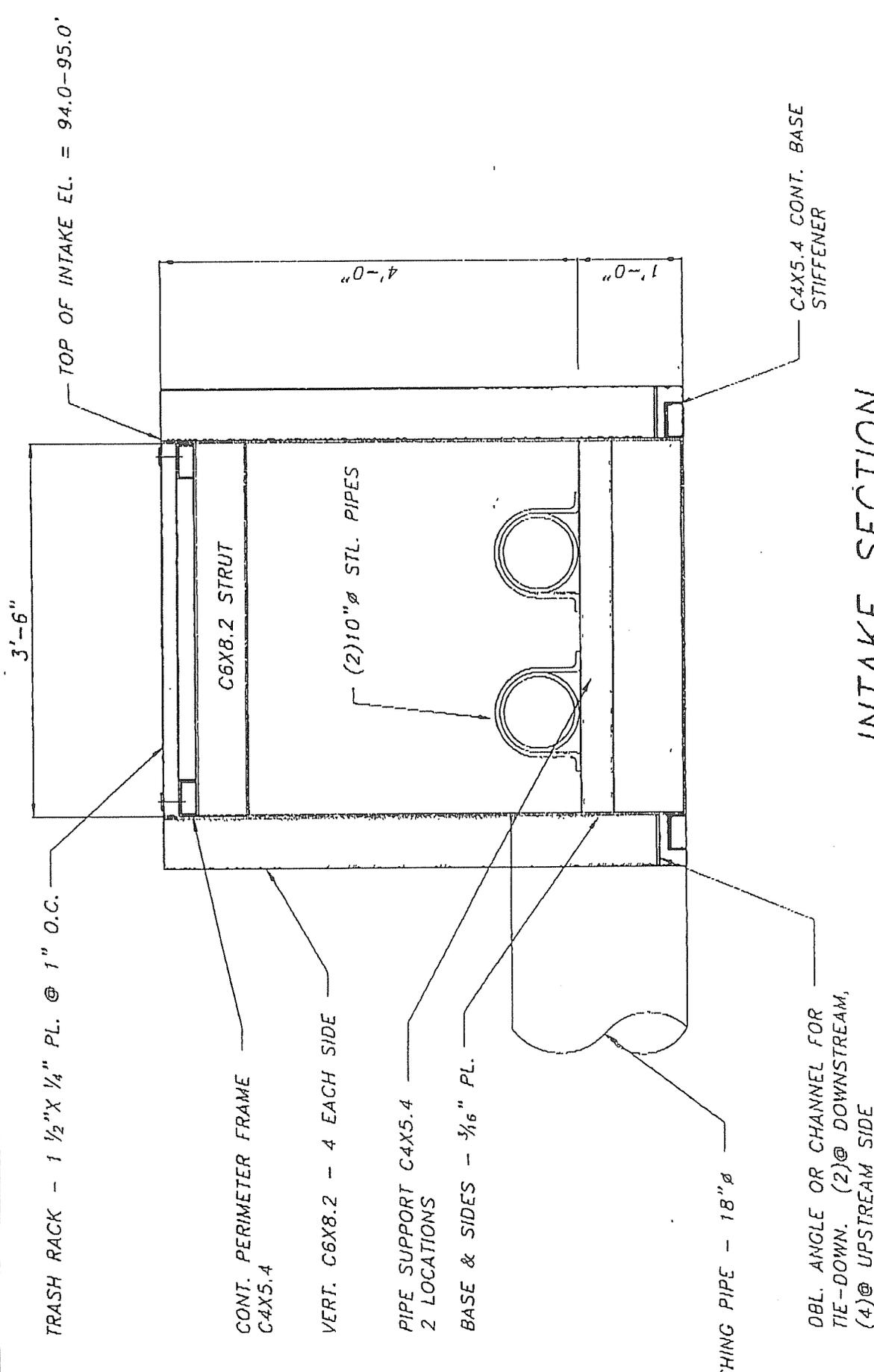
CLIENT:
KAY TOWNSHIP ENGINEERS
3148 PARSONS COURT
JUNEAU, ALASKA 99801

PROJECT NO. 80112



TYPICAL ROCK DAM
SECTION AT INTAKE

SCALE: 1/4" = 1'



TRASH RACK - 1 1/2" X 1/4" PL. @ 1" O.C.

TOP OF INTAKE EL. = 94.0-95.0'

C6X8.2 STRUT

(2) 10" Ø STL. PIPES

C4X5.4 CONT. BASE STIFFENER

CONT. PERIMETER FRAME C4X5.4

VERT. C6X8.2 - 4 EACH SIDE

PIPE SUPPORT C4X5.4 2 LOCATIONS

BASE & SIDES - 3/16" PL.

FLUSHING PIPE - 18" Ø

OBL. ANGLE OR CHANNEL FOR TIE-DOWN. (2) @ DOWNSTREAM, (4) @ UPSTREAM SIDE

INTAKE SECTION DETAIL

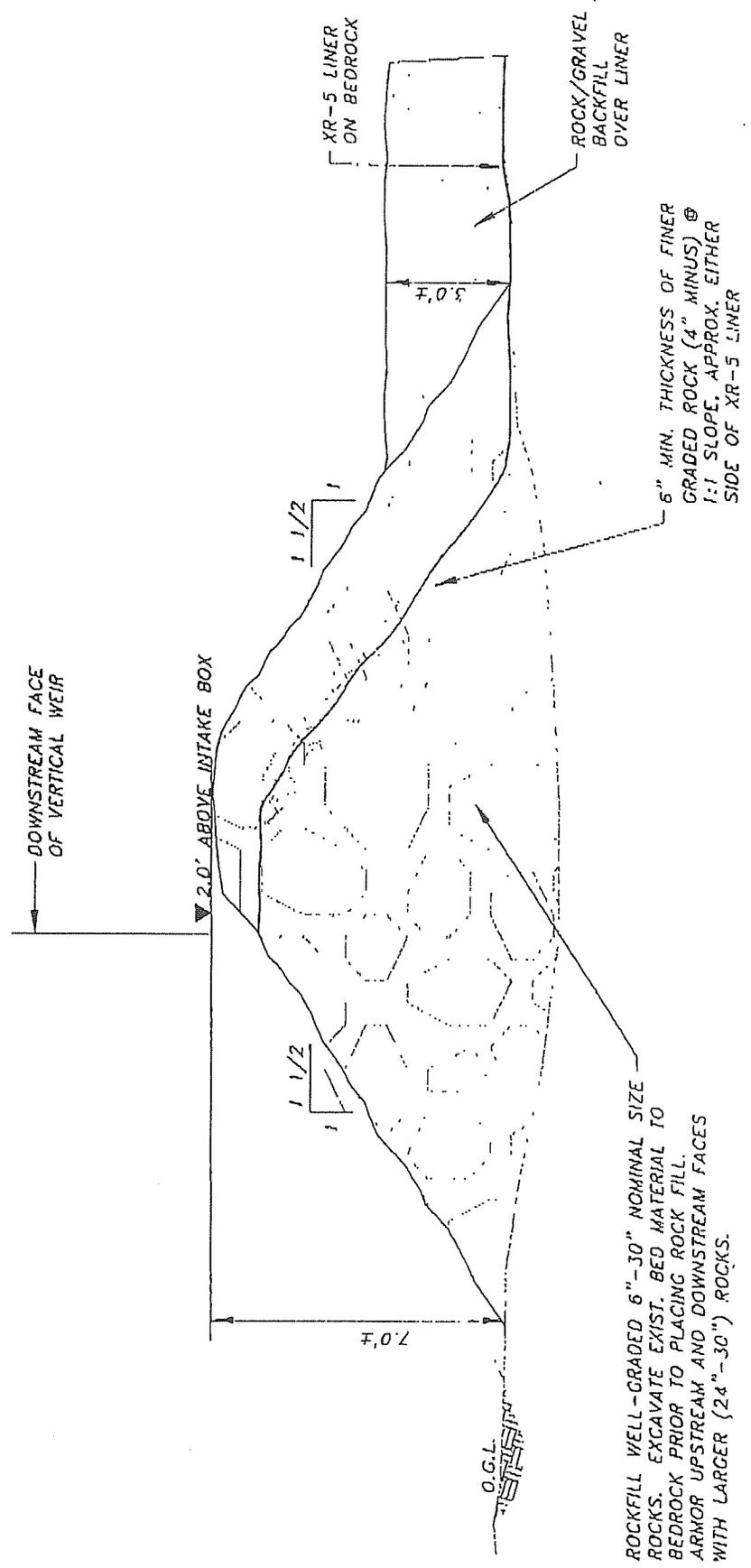
SCALE: 3/4" = 1'

TEMPORARY DIVERSION WEIR
& WATER-SUPPLY INTAKE

GUNNUK CREEK, CITY OF KAKE, AK
 CLIENT: CITY OF KAKE
 ENGINEER: PAUL CHRISTENSEN, INC.
 SCALE: AS SHOWN ON DRAWING
 PROJECT NO.: 2003-01-01
 DATE: NOV. 2003
 SHEET 4 OF 6
 DRAWN BY: J. M. JONES

ROCK DAM SECTION

SCALE: 1/4" = 1'



TEMPORARY DIVERSION WEIR & WATER SUPPLY INTAKE

GUNNUK CREEK, CITY OF KAKE, AK

ENGINEER:
 RAY ENGINEERING, INC.
 P.O. BOX 14974
 JUNEAU, ALASKA 99803
 DATE: NOV. 1999

STATE ENGINEER:
 PAUL HARVEY COURT
 JUNEAU, ALASKA 99801

SHEET 5 OF 1

RAM PROJ. NO. 001387

ROCK FILLED GABIONS ON ROCK FILL BASE

TOP OF WALL EL.
100'±

6'-0"

18" Ø FLUSHING PIPE
10-12" Ø SUPPLY PIPES

6'-0"

2'-0"

O.G.L.

VARIABLES

LINER BETWEEN GABIONS
AND BELOW ROCK

INVERT VARIES. SLOPE PIPES
FOR GRAVITY FLOW

CMP VALVE CASINGS.

PROTECTION WALL SECTION

SCALE: 1/4" = 1'

TEMPORARY DIVERSION WEIR & WATER SUPPLY INTAKE

GUNNUK CREEK, CITY OF KAKE, AK

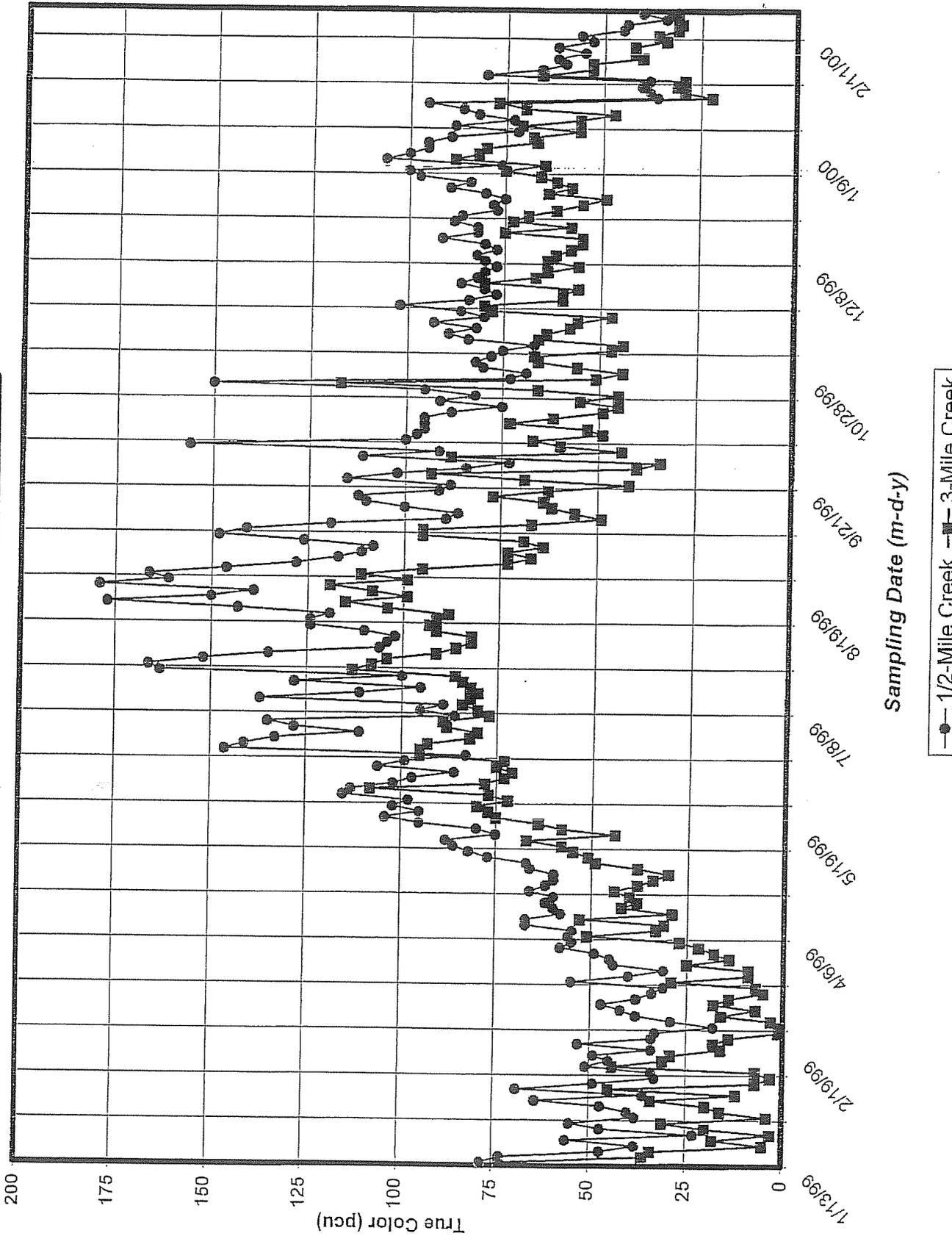
DATE: NOV. 2000
DRAWN: J. M. ...
CHECKED: ...
DESIGNED: ...
PROJECT: ...
SHEET 6 OF 1
FIRM: ...

Appendix J

Water Quality Data

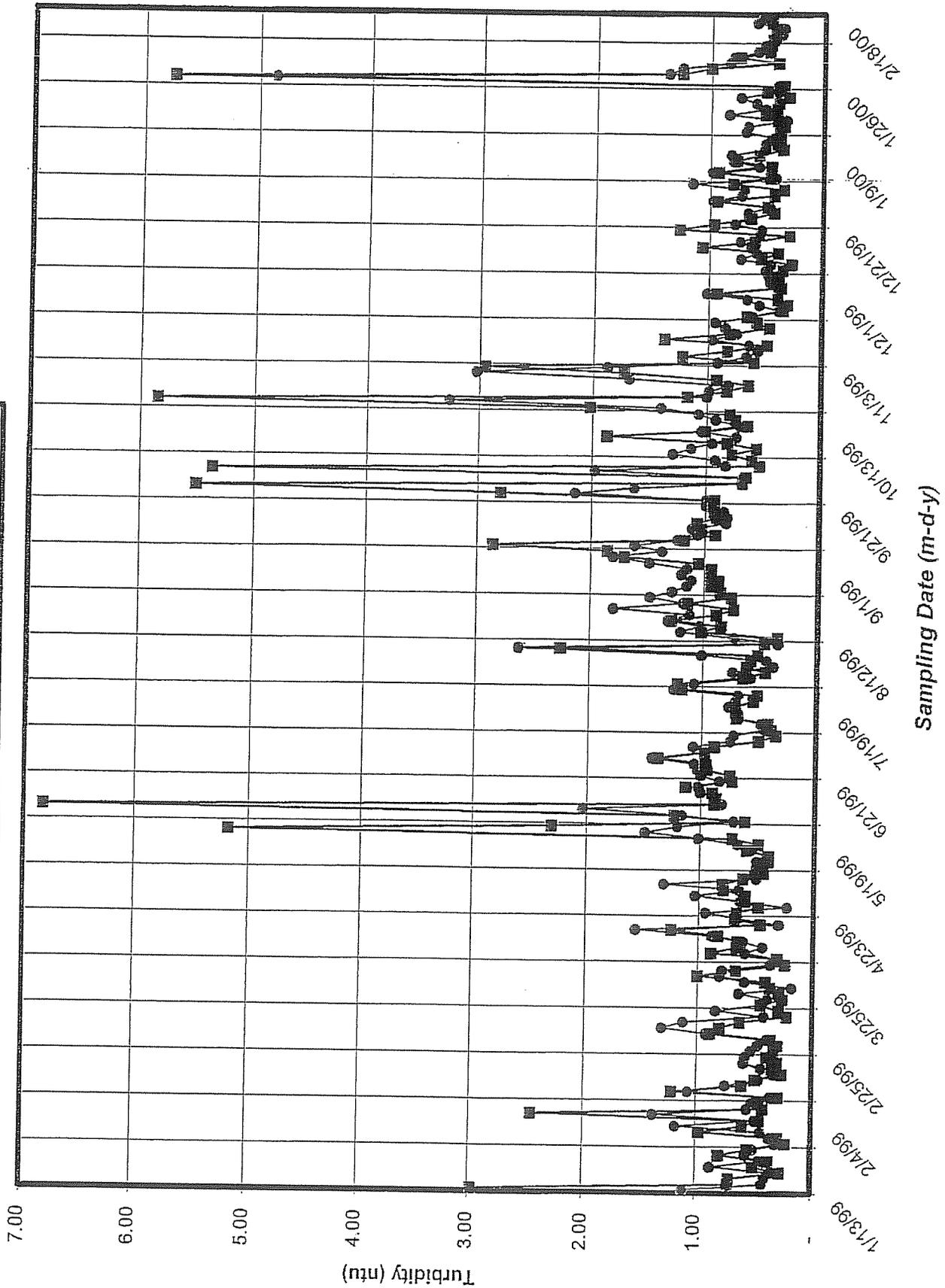
Graph - "Raw Water True Color"

Raw Water True Color



Graph - "Raw Water Turbidity"

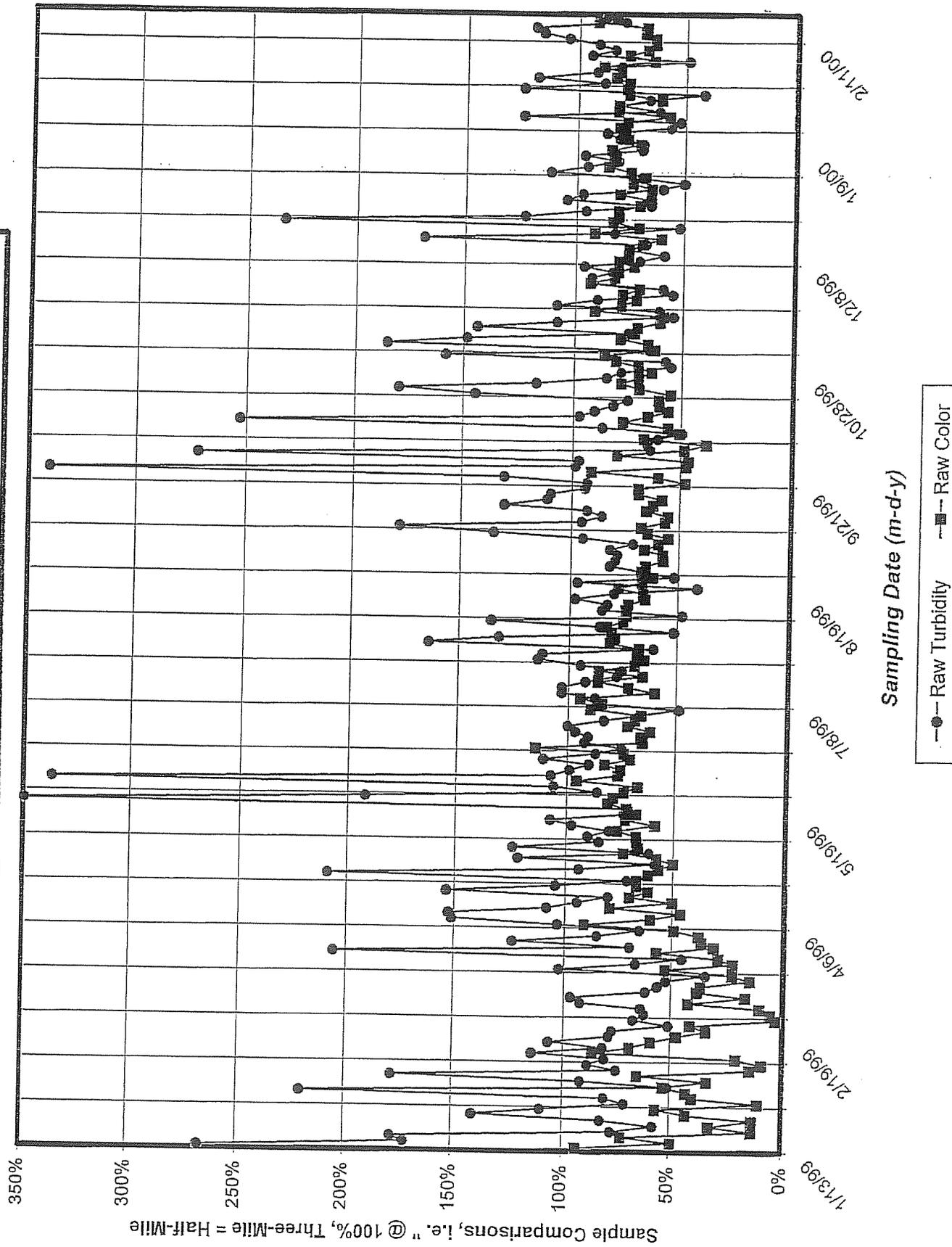
Raw Water Turbidity



● 1/2-Mile Creek ■ 3-Mile Creek

Graph - "Three-Mile Creek vs Half-Mile Creek"

Three-Mile Creek vs Half-Mile Creek



Appendix K

Permit Applications



R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

December 29, 2004

Mr Bill Peratrovich
Klawock Heenya Corporation
P.O. Box 129
Klawock, AK 99925

Re: 3-Mile Creek Raw Water Intake and Pipeline

Dear Mr. Peratrovich:

The City of Klawock is in the final stages of the feasibility study and permitting for new water source to serve the City of Klawock. The project has been approved by state and federal agencies and the City anticipates obtaining water rights to 3-Mile Creek in January.

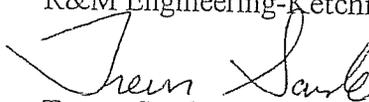
In order for the project to move forward, the City of Klawock will need a utility easement across Klawock-Heenya owned land for the purpose of installing and maintaining a water transmission pipeline and intake structure. The preliminary design concept is to place the pipeline in the uphill shoulder of an existing logging road and installing a submerged infiltration gallery in 3-Mile Creek. The easement would be approximately 25 feet wide with a total length of approximately 9800 feet.

The City of Klawock requests a memorandum of understanding on the easement. Once the MOU is obtained, the City of Klawock can move forward to survey and prepare easement documents suitable for recording.

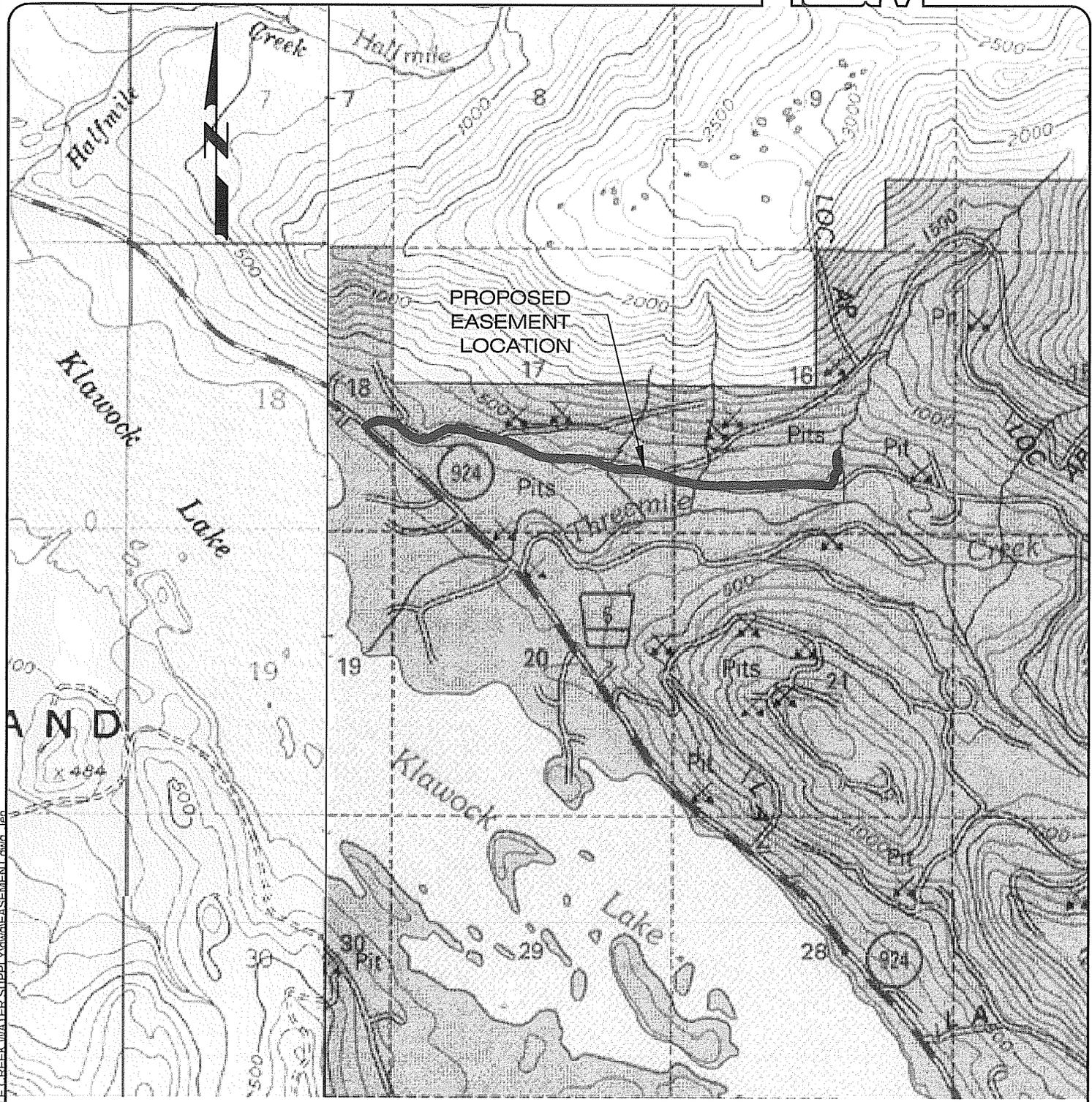
R&M Engineering-Ketchikan, Inc. is the Agent for the City of Klawock for permitting of the project. We have attached a copy of the draft report for your review and a copy of the project maps for reference. Please call should you have questions with any of the information (907) 225-7917 x 307.

Very truly yours,

R&M Engineering-Ketchikan, Inc.


Trevor Sande, P.E., President

Cc: John Morris, City of Klawock
John Dunker, Department of Natural Resources



REQUEST FOR EASEMENT DIAGRAM

GRAPHIC SCALE



PROJECT NO. 032339	SCALE: 1"=1/2 MI	DRAWN BY: J.M.R.	CHECKED BY: T.S.S.	DATE: 12/29/04	SHEET NO. 1 OF 1
-----------------------	---------------------	---------------------	-----------------------	-------------------	---------------------

C:\PROJECTS\2003\032339 - KLAWOCK THREEMILE CREEK WATER SUPPLY\WATER EASEMENT.dwg Jan

DIVISION OF MINING, LAND & WATER
WATER RESOURCES SECTION



550 West 7th Ave., Suite 900A
 Anchorage, AK 99501-3577
 907-269-8503
 Fax: 269-8947

400 Willoughby, 4th Floor
 Juneau, AK 99801
 907-465-3400
 Fax: 586-2954

Office Use Only
Date/Time Stamp

Office Use Only LAS #	Office Use Only CID # CID #	Office Use Only Receipt Type WR
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APPLICATION FOR WATER RIGHT

Instructions (Some of the following information may be available at the Department of Natural Resources)

- Complete one application for each water source – **Incomplete applications will not be accepted**
- Attach copy of deed or possessory interest document for property where water used
- Attach sketch, photos, and/or plans of water system, and driller's well log, if applicable
- Attach copy of legal access document or application for legal access to water withdrawal point and transport route, if applicable (e.g. right-of-way, easement)
- Attach subdivision plat, USGS topographical map, or borough tax map indicating location of water withdrawal, route of water transmission, water use area boundary, and point of water return flow, if applicable – **Map must identify meridian, township, range, and section**
- Attach completed Coastal Project Questionnaire, if applicable (see page 3)
- Submit filing fee – **Non-refundable** (see page 3)

CITY OF KLAWOCK

Applicant Name

Co-applicant Name

Applicant Social Security Number (optional)

Co-applicant Social Security Number (optional)

PO BOX 469

KLAWOCK

AK

99925

Mailing Address

City

State

Zip Code

(907) 755-2261

Work Phone Number

Home Phone Number

E-mail Address

<i>Legal Descriptions</i>							
Location of Water Use – To be eligible to apply, applicant must own, lease, or have right to service water to property							
Subdivision Name or Survey Number	Lot, Block, or Tract	Meridian	Township	Range	Section	Quarter Sections	
Unsurveyed Klawock Heenya	14(c) Lands	CR	73 S.	82 E.	16	SE ¼	NW ¼
Location of Water Source – Applicant must own or obtain document granting access to property							
Subdivision Name or Survey Number	Lot, Block, or Tract	Meridian	Township	Range	Section	Quarter Sections	
Unsurveyed Klawock Heenya	14(c) Lands	CR	73 S.	82 E.	16	SE ¼	NW ¼
Location of water return flow or discharge, if applicable							
Geographic Name of Water Body or Well Depth		Meridian	Township	Range	Section	Quarter sections	
N/A						¼	¼

Attach extra page if needed

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING, LAND & WATER WATER RESOURCES SECTION

- 400 WILLOUGHBY AVE., SUITE 400
JUNEAU, ALASKA 99801
PHONE: (907) 465-3400
FAX: (907) 586-2954
- 550 WEST 7TH AVENUE, SUITE 1070
ANCHORAGE, ALASKA 99501-3579
PHONE: (907) 269-8600
FAX: (907) 269-8904

25 January 2005

John Morris, City Administrator
City of Klawock
P.O. Box 469
Klawock, AK 99925

Re: Permit to Appropriate Water – LAS 22890

Dear Mr. Morris:

The Water Resources Section has completed the adjudication of your water right application. Enclosed is your Permit to Appropriate Water, with an expiration date of 22 December 2014. This permit allows you to develop water resources and water uses as indicated; however, it is not the final step in obtaining your water right.

Once you have established your water use, and complied with all permit conditions, it is necessary that you notify our office in order to obtain a permanent water rights Certificate of Appropriation.

Please be advised that our approval does not relieve you of the responsibility of securing state, federal or local permits. Please read over your permit carefully and note the expiration date. If you allow your permit to expire and fail to notify us, your permit may be subject to termination.

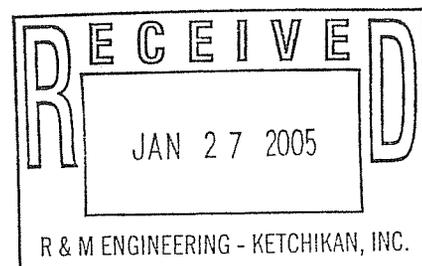
If you have any questions or concerns about your permit or water rights in general, I may be contacted a 907-465-3400. Thank you for your cooperation with the Water Resources Section.



John Dunker
Water Resource Manager

Enclosure

✓Cc: Trevor Sande, R&M Engineering - Ketchikan





State of Alaska
Department of Natural Resources

**PERMIT TO APPROPRIATE WATER
LAS 22890**

The State of Alaska, acting by and through the Department of Natural Resources, Division of Mining, Land and Water, 550 West 7th Avenue, Suite 1020, Anchorage, AK 99501-3562, hereinafter referred to as the grantor, under AS 46.15, the Alaska Water Use Act, and the regulations adopted under it, grants to:

City of Klawock
P.O. Box 469
Klawock, AK 99925

The right to develop the following use of water:

SOURCE: North Fork tributary of 3-Mile Creek
QUANTITY: 485,000 gallons per day PERIOD OF USE: April through October
QUANTITY: 380,000 gallons per day PERIOD OF USE: November through March
MAXIMUM DIVERSION RATE: 0.75 cubic feet per second
USE: Public Water Supply

With a PRIORITY DATE of 4 October 1999.

The location of this water source:

Infiltration gallery in North Fork tributary of 3-Mile Creek within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 16, Township 73 South, Range 82 East, Copper River Meridian.

The location to which this appropriation is appurtenant:

City of Klawock municipal public water system within Township 73 South, Range 81 East, Copper River Meridian.

Changes in the natural state of water are to be made in the manner and only for the purposes stated in this permit. This permit is subject to the pertinent statutory provisions in AS 46.15, Administrative Regulations in 11 AAC 93, and the following conditions:

The holder of this permit shall:

1. Follow acceptable engineering standards in exercising the privilege granted by this permit.

PERMIT TO APPROPRIATE WATER
LAS 22890

2. Except for claims or losses arising from negligence of the State, defend and indemnify the State against and hold it harmless from any and all claims, demands, legal actions, loss, liability, and expense for injury to or death of persons and damages to or loss of property arising out of or connected with the exercise of the privilege granted by this permit.
3. Comply with all applicable laws, regulations and conditions.
4. Notify the grantor of any change of address, transfer of any real property identified in this permit, or any proposed change in the water appropriation.
5. Respond to any request for additional information during the duration of this permit, per AS 46.15.100 AND AS 46.15.147. Failure to respond may result in the termination of this permit.
6. Pay an annual Administrative Service Fee that shall be assessed upon this appropriation of water, per 11 AAC 05.010 (a) (8) (m).
7. Obtain and maintain permanent right of access to the property where water is to be withdrawn, impounded, or diverted, and over which water is to be transported to the point of use, per 11 AAC 93.040 (c) (4).
8. Meter and record daily water use in gallons per day, and submit reports of daily water use to the grantor monthly. Reports must distinguish between water used from the 3-Mile Creek source and the ½-Mile Creek source (water right ADL 50955).
9. Submit a plan for fulfilling the recording and reporting condition above (Condition 8) to the grantor for ADNR review and approval, not less than 90 days prior to beginning to divert water from the stream.
10. Water may not be withdrawn from the stream when streamflow immediately downstream from the diversion structure is less than the amounts in the following schedule, for the respective periods indicated:

March through May:	4 cubic feet per second
June through July:	4 cubic feet per second
August through November:	6 cubic feet per second
December through February:	3 cubic feet per second
11. A plan for monitoring, recording, and reporting continuous streamflow immediately downstream from the diversion structure, and for operating within the instream flow requirements of Condition 10, above, shall be submitted to the grantor for ADNR review and approval not less than 90 days prior to beginning to divert water from the stream.
12. If the grantor determines that this appropriation unduly affects a prior appropriator's ability to obtain water in accordance with his or her permit or certificate, this appropriation may be amended or water use may be curtailed until the prior appropriator can again obtain water under his or her prior right. Those individuals within the same area that do not have water rights may also be required to curtail taking water.

PERMIT TO APPROPRIATE WATER
LAS 22890

The permittee must follow all applicable statutes, regulations, and plan requirements of the Alaska Coastal Management Program (ACMP). This authorization is subject to ACMP Consistency Finding AK 0402-09J issued September 14, 2004.

This permit shall EXPIRE on: 24 January 2015

This Permit to Appropriate Water is issued by authority of AS 46.15.080 and 11 AAC 93.120 on:

25 January 2005

Date



Approved (/s/)

John Dunker

Name

Water Resource Manager

Title

Coastal Project Questionnaire and Certification Statement

Please answer all questions. To avoid a delay in processing, **please call the department if you answer "yes" to any of the questions related to that department.** Maps and plan drawings must be included with your packet.

An incomplete packet will be returned.

■ APPLICANT INFORMATION

1. City of Klawock

Name of Applicant

P.O. Box 469

Address

Klawock, AK ,

City/State

(907) 755-2261

Daytime Phone

(907) 755-2403

Fax Number

99925

Zip Code

dgasaway@cityofklawock.com

E-mail Address

2. R&M Engineering-Ketchikan, Inc.

Agent (or responsible party if other than applicant)

355 Carlanna Lake Road

Address

Ketchikan, AK

City/State State

Zip Code

99901

Zip Code

(907) 225-7917

Daytime Phone

(907) 225-3441

Fax Number

trevorsande@rmketchikan.com

E-mail Address

■ PROJECT INFORMATION

1. This activity is a: new project modification or addition to an existing project

Yes

No

If a modification, do you currently have any State, federal or local approvals

related to this activity?..... Yes No

Note: Approval means any form of authorization. If "yes," please list below:

Approval Type

Approval #

Issuance Date

Expiration Date

2. If a modification, has this project ever been reviewed by the State of Alaska under the ACMP?..... Yes No

Previous State I.D. Number: AK _____ Previous Project

Name: _____

■ PROJECT DESCRIPTION

1. Provide a brief description of your entire project and ALL associated facilities and land use conversions. Attach additional sheet(s) as needed.

Construction of an intake gallery structure in the North Fork of Threemile Creek for public water supply to the City of Klawock. Pipeline to connect to the existing water supply system will be 14" diameter and approximately 18,900 feet in length.

Proposed starting date for project: **August 2004**

Proposed ending date for project: **April 2005**

2. Attach the following: • a detailed description of the project, all associated facilities, and land use conversions, etc. (Be specific, including access roads, caretaker facilities, waste disposal sites, etc.); • a project timeline for completion of all major activities in the proposal; • a site plan depicting property boundary with all proposed actions; • other supporting documentation that would facilitate review of the project. Note: If the project is a modification, identify existing facilities as well as proposed changes on the site plan.

- | | Yes | No |
|---|-------------------------------------|-------------------------------------|
| 4. a) Will your project result in the construction, operation, or closure of a facility for the disposal of solid waste? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>(Note: Solid waste means drilling wastes, household garbage, refuse, sludge, construction or demolition wastes, industrial solid waste, asbestos, and other discarded, abandoned, or unwanted solid or semi-solid material, whether or not subject to decomposition, originating from any source. Disposal means placement of solid waste on land.)</i> | | |
| b) Will your project result in the treatment of solid waste at the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>(Examples of treatment methods include, but are not limited to: incineration, open burning, baling, and composting.)</i> | | |
| c) Will your project result in the storage or transfer of solid waste at the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will the project result in the storage of more than 50 tons of materials for reuse, recycling, or resource recovery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will any sewage solids or biosolids be disposed of or land-applied to the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>(Sewage solids include wastes that have been removed from a wastewater treatment plant system, such as a septic tank, lagoon dredge, or wastewater treatment sludge that contain no free liquids. Biosolids are the solid, semi-solid, or liquid residues produced during the treatment of domestic septage in a treatment works which are land applied for beneficial use.)</i> | | |
| 5. Will your project require the application of oil, pesticides, and/or any other broadcast chemicals? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. a) Will you have a facility with industrial processes that are designed to process no less than five tons per hour and needs air pollution controls to comply with State emission standards? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will you have stationary or transportable fuel burning equipment, including flares, with a total fuel consumption capacity no less than 50 million Btu/hour? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Will you have a facility with incinerators having a total charging capacity of no less than 1,000 pounds per hour? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will you have a facility with equipment or processes that are subject to Federal New Source Performance Standards or National Emission Standards for hazardous air pollutants? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will you propose exhaust stack injection? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Will you have a facility with the potential to emit no less than 100 tons per year of any regulated air contaminant? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Will you have a facility with the potential to emit no less than 10 tons per year of any hazardous air contaminant or 25 tons per year of all hazardous air contaminants? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Will you construct or add stationary or transportable fuel burning equipment of no less than 10 million Btu/hour in the City of Unalaska or the City of St. Paul? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Will you construct or modify in the Port of Anchorage a volatile liquid storage tank with a volume no less than 9,000 barrels, or a volatile liquid loading rack with a design throughput no less than 15 million gallons? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Will you be requesting operational or physical limits designed to reduce emissions from an existing facility in an air quality nonattainment area to offset an emission increase from another new or modified facility? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Will you be developing, constructing, installing, or altering a public water system? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. a) Will your project involve the operation of waterborne tank vessels or oil barges that carry crude or non-crude oil as bulk cargo, or the transfer of oil or other petroleum products to or from such a vessel or a pipeline system? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will your project require or include onshore or offshore oil facilities with an effective aggregate storage capacity of greater than 5,000 barrels of crude oil or greater than 10,000 barrels of non-crude oil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Yes No

- 3. Is your project located in a designated State Game Refuge, Critical Habitat Area or State Game Sanctuary?.....
- 4. Does your project include the construction/operation of a salmon hatchery?
- 5. Does your project affect, or is it related to, a previously permitted salmon hatchery?
- 6. Does your project include the construction of an aquatic farm?.....

If you answered "No" to ALL questions in this section, continue to next section.

If you answered "Yes" to ANY questions under 1-3, contact the Regional or Area DFG Habitat and Restoration Division Office for information and application forms.

If you answered "Yes" to ANY questions under 4-6, contact the DFG Commercial Fisheries Division headquarters for information and application forms.

Based on your discussion with DFG, please complete the following:

Types of project approvals or permits needed

DNR TITLE 40 PERMIT

Date application submitted

PENDING WATER RIGHTS APPROVAL

If you answered "YES" to any questions in this section and are not applying for DFG permits, indicate reason:

- _____ (DFG contact) told me on _____ that no DFG approvals are required on this project because _____
- Other: _____

■DEPARTMENT OF NATURAL RESOURCES (DNR) APPROVALS

- 1. Is the proposed project on State-owned land or water or will you need to cross State-owned land for access? ("Access" includes temporary access for construction purposes. Note: In addition to State-owned uplands, the State owns almost all land below the ordinary high water line of navigable streams, rivers and lakes, and below the mean high tide line seaward for three miles.) KLAWOCK-HOLIS HIGHWAY RIGHT-OF-WAY
 - a) Is this project for a commercial activity?
- 2. Is the project on Alaska Mental Health Trust land (AMHT) or will you need to cross AMHT land? Note: Alaska Mental Health Trust land is not considered State land for the purpose of ACMP reviews.....
- 3. Do you plan to dredge or otherwise excavate/remove materials on State-owned land?.....

Location of dredging site if different than the project site: _____
 Township _____ Range _____ Section _____ Meridian _____ USGS Quad Map _____
- 4. Do you plan to place fill or dredged material on State-owned land?.....

Location of fill disposal site if other than the project site: _____
 Township _____ Range _____ Section _____ Meridian _____ USGS Quad Map _____
 Source is on: State Land Federal Land Private Land Municipal Land
- 5. Do you plan to use any of the following State-owned resources:.....
 - Timber: Will you be harvesting timber? Amount: _____
 - Materials such as rock, sand or gravel, peat, soil, overburden, etc.:
 - Which material? _____ Amount: _____
 - Location of source: Project site Other, describe: _____
 - Township _____ Range _____ Section _____ Meridian _____ USGS Quad Map _____

FEDERAL APPROVALS

Yes No

U.S. Army Corps of Engineers (COE)

1. Will you be dredging or placing structures or fills in any of the following:
- tidal (ocean) waters? streams? lakes? wetlands*?.....
 - If yes, have you applied for a COE permit?.....
 - Date of submittal: PENDING

(Note: Your application for this activity to the COE also serves as application for DEC Water Quality Certification.)

**If you are not certain whether your proposed project is in a wetlands (wetlands include muskegs), contact the COE, Regulatory Branch at (907) 753-2720 for a wetlands determination (outside the Anchorage area call toll free 1-800-478-2712).*

Bureau of Land Management (BLM)

2. Is the proposed project located on BLM land, or will you need to cross BLM land for access?.....
- If yes, have you applied for a BLM permit or approval?.....
- Date of submittal: _____

U.S. Coast Guard (USCG)

3. a) Will you be constructing a bridge or causeway over tidal (ocean) waters, or navigable rivers, streams or lakes?.....
- b) Does your project involve building an access to an island?.....
- c) Will you be siting, constructing, or operating a deepwater port?.....
- If yes, have you applied for a USCG permit?.....
- Date of submittal: _____

U.S. Environmental Protection Agency (EPA)

4. a) Will the proposed project have a discharge to any waters?.....
- b) Will you be disposing of sewage sludge (contact EPA at 206-553-1941)?.....
- If you answered yes to a) or b), have you applied for an EPA National Pollution Discharge Elimination System (NPDES) permit?..... PENDING
- Date of submittal: _____

(Note: For information regarding the need for an NPDES permit, contact EPA at (800) 424-4372.)

- c) Will construction of your project expose 5 or more acres of soil? *(This applies to the total amount of land disturbed, even if disturbance is distributed over more than one season, and also applies to areas that are part of a larger common plan of development or sale.)*.....
- d) Is your project an industrial facility which will have stormwater discharge which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant?.....
- If you answered yes to c) or d), your project may require an NPDES Stormwater permit. Contact EPA at 206-553-8399.

Federal Aviation Administration (FAA)

5. a) Is your project located within five miles of any public airport?.....
- b) Will you have a waste discharge that is likely to decay within 5,000 feet of any public airport?.....
- If yes, please contact the Airports Division of the FAA at (907) 271-5444.

Federal Energy Regulatory Commission (FERC)

6. a) Does the project include any of the following:
- 1) a non-federal hydroelectric project on any navigable body of water.....
 - 2) a location on federal land (including transmission lines).....
 - 3) utilization of surplus water from any federal government dam.....
- b) Does the project include construction and operation, or abandonment of natural gas pipeline facilities under sections (b) and (c) of the Federal Power Act (FPA)?.....

STATE OF ALASKA

FRANK H. MURKOWSKI,
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

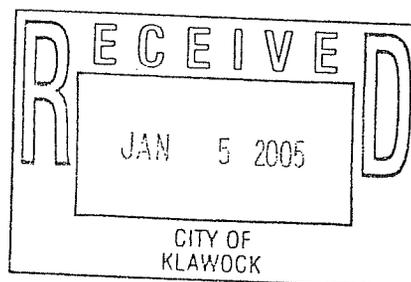
OFFICE OF HABITAT MANAGEMENT AND PERMITTING
PRINCE OF WALES AREA OFFICE

Po Box 668
Craig Alaska 99921-0668
Phone 907-826-2560
Fax 907-826-2562

FISH HABITAT PERMIT FH04-VII-031

ISSUED: December 28, 2004
EXPIRES: December 31, 2009

Mr. John Morris, City Administrator
City of Klawock
P.O. Box 469
Klawock, AK 99925



Dear Mr. Morris:

Subject: Threemile Creek Water Supply
Tributary to Threemile Creek (ADF&G #103-60-10470-2071-3045)
Township 73S; Range 82E; Section 16; Craig C-3, CRM, Prince of Wales Island
STATE ID NO. AK0202-02J

Pursuant to AS 41.14.870(b), the Alaska Department of Natural Resources (DNR) Office of Habitat Management and Permitting (OHMP) has reviewed your proposal to construct a water intake gallery and water line in a tributary of Threemile Creek in the Klawock Lake watershed near the town of Klawock, on Prince of Wales Island. The intake gallery structure would involve the discharge of approximately 115 cy of 5-inch to 30-inch rocks, (1) 4-foot by 12-foot by 1-foot concrete slab to provide toe protection, and a gravel liner 2 feet in depth into a total of .02 acres of ADF&G steam number 103-60-10470-0010-2071-3045 (3045). The proposed project location is T. 73S., R. 81E., Section 16 CRM, Craig C-3; N 55°32'16", W 132°57'13

Steam number 103-60-10470-0010-2071-3045 (3045) is listed in the Atlas and Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes as being important for pink, coho, and sockeye salmon, and also containing cutthroat trout and Dolly Varden char. The proposed water withdrawal from stream 3045 associated with the intake gallery has the potential to negatively impact important downstream fish habitat in Threemile Creek (stream 2071). Spawning begins in September and continues through December. Eggs deposited in the gravel do not complete hatching into free-swimming fry until mid-June. In-water activities such as those being

"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans."

proposed by the applicant can represent a significant disturbance to both juvenile and adult fish during this time period.

In accordance with AS 41.14.870, project approval is hereby given subject to the following stipulations:

1. Work below ordinary high water shall be conducted only between June 15 and September 1.
2. Alteration of stream banks shall be minimized and restricted to that necessary for the work described. Disturbed stream banks shall be immediately re-contoured and stabilized to prevent erosion and sedimentation of the stream.
3. If blasting is necessary, measures and timing must be implemented to protect fish and fish eggs downstream of the tailrace from injury. Blasting shall only be conducted so that hydrostatic overpressure to fish habitat does not exceed 2.5 pounds per square inch at any time. Peak particle velocity shall not exceed 0.5 inches per second.

4. The permittee shall at all times operate the intake gallery in a run-of-river mode for the protection of aquatic life downstream of the project. The following chart lists the minimum flow requirements throughout the year for the proposed project:

<u>Time Period</u>	<u>Flow (cfs)</u>	<u>Rationale</u>
March 1 to May 31	4	To maintain and protect steelhead and cutthroat trout (April and May) passage and spawning, and rearing for other fish species. Based on the synthetic hydrologic analysis, this flow would be equaled or exceeded approximately 50, 80, and 90 percent of the time for March, April, and May respectively.
June 1 to July 31	4	To maintain and protect steelhead and cutthroat trout incubation, and rearing for other fish species. Based on the synthetic hydrologic analysis, this flow would be equaled or exceeded 100 and 95 percent of the time for June and July, respectively.
August 1 to November 30	6	To maintain and protect sockeye (September to October, coho (September to October), and pink (August and September) salmon and Dolly Varden char (September and October) passage and spawning, and rearing for other fish species. Based on synthetic hydrologic analysis, this flow would be equaled or exceeded approximately 60, 100, 95, and 100 percent of the time for August, September, October, and November, respectively.
December 1 to February 28	3	To maintain and protect sockeye, coho, and pink salmon, and Dolly Varden char incubation, and rearing for other fish species. Also, percent icing impacts on incubation. Based on the synthetic hydrologic analysis, this flow would be equaled or exceeded approximately 100, 90, and 90 percent of the time for December, January, and February, respectively.

5. Vehicles and equipment shall not be fueled in the flood plain below the ordinary high water line (vegetation line). Vehicles and/or equipment leaking fuel, oil, hydraulic or cooling fluids, or other pollutants shall not be operated below the ordinary high water line of the specified water body.

The recipient of this permit (the permittee) is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved plan. For any activity that significantly deviates from the approved plan, the permittee shall notify the OHM&P and obtain written approval in the form of a permit amendment before beginning the activity. Any action taken by the permittee, or an agent of the permittee, that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the OHM&P. Therefore, it is recommended that the OHM&P be consulted immediately when a deviation from the approved plan is being considered.

This letter constitutes a permit issued under the authority of AS 41.14.870 and 6 AAC 50. This permit must be retained on site during construction. Please be advised that this approval does not relieve you of the responsibility for securing other state, federal, or local permits.

Pursuant to 6 AAC 80.010 (b), the conditions of this permit are consistent with the Standards of the Alaska Coastal Management Program and the Ketchikan Coastal District Program.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which were a direct result of the failure to comply with this permit or any applicable law.

The permittee shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or the permittee's performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

This permit decision may be appealed in accordance with the provisions of AS 44.62.330--44.62.630.

Sincerely,

Dick LeFebvre, Deputy Commissioner



By: Mark Minnillo, Habitat Biologist

Office of Habitat Management and Permitting

cc: Al Ott, OHMP, Fairbanks*
Wayne Dolezal, ADF&G, Anchorage*
Steve. McCurdy, SF-Klawock *
Kevin. Brownlee, SF/RTS-Douglas *
John. Dunker, DNR *
Jim. Powell, DEC *
Carlos Paez, ACOE, Anchorage*

* e-mail

**ALASKA COASTAL MANAGEMENT PROGRAM
FINAL CONSISTENCY DETERMINATION
CONCURRENCE**

DATE ISSUED: September 14, 2004

PROJECT TITLE: Threemile Creek (Klawock Water Supply Intake)

STATE ID. NO.: AK 0402-09J

AFFECTED COASTAL RESOURCE DISTRICT: Klawock

DESCRIPTION OF PROJECT SUBJECT TO ACMP REVIEW:

As taken from the U.S. Army Corps of Engineers' January 29, 2004 Public Notice: "The applicant proposes to discharge approximately 355 cubic yards of shotrock into .176 acres (7,700 square feet) of wetlands to install a water pipeline within an access road. The applicant also proposes to install an intake gallery structure which would involve the discharge of approximately 115 cubic yards of 5-inch to 30-inch rocks, one 4-foot by 12-foot by 1-foot concrete slab to provide toe protection, and a gravel liner 2-feet in depth into a total of .02 acres (882 square feet) of water of the United States."

The proposed project would provide the City of Klawock with additional water to supply its public water utility.

The project site is within Section 16, T. 73 S., R. 81 E., Copper River Meridian (Craig "C-3"), at approximately 55° 32' 16" North, 132° 57' 13" West, near Klawock, Alaska.

Background Information -

In a cover letter from the City of Klawock received by the Office of the Governor's Division of Governmental Coordination on December 16, 1999, there is a very poignant description of the recent history of the Klawock water supply system -

"Water has been taken from ½ Mile Creek since the early years. Wooden dams were constructed up away from Klawock Lake so as not to hinder the fisheries. The water wasn't treated. The result was brown, dirty water, with weeds, rocks, and bushes showing up at the faucet. The distribution line was wooden as well.

Then came a water plant in the mid-sixties with chlorine treatment. Chlorine levels were not monitored daily and turbidity was not even considered. The result was treated, safe, dirty water with occasional weeds and rocks."

The community of Klawock's water demands have been outgrown the water supply. Halfmile Creek has been the primary source of water in the vicinity since early years. In the mid-1960s a water plant was constructed with the addition of chlorine treatment. In the 1990s the City worked with both the Alaska Department of Environmental Conservation

(ADEC) and Public Health Service on water plant upgrades with the result being clean and safe drinking water, but at a relatively high cost.

In 1996 the water supply dried up and the community had to have water trucked in until seasonal rains provided relief. Compared to the community's early days when the main demands for water were from salmon canneries, the contemporary community has a growing commercial component and residential expansion. The conclusion of waters studies has always been that the Threemile Creek drainage is the most likely source for additional supply for the community.

In 1999 the City of Klawock passed two Resolutions identifying the "Threemile Water Source" as a top priority of the community, and outlining a timetable of phased steps to satisfy information requirements for stream gauging, treatability study, aerial surveys and photos, site options, geotechnical study, GPS topographical survey of intake site, pipeline route survey and etc.

Based on water use studies conducted since 1999, in August of 2003 the City of Klawock has applied to the Alaska Department of Natural Resources (ADNR) for a Water Right for the proposed water supply. The application requests a maximum of 485,000 gallons/per/day at peak consumption and a winter maximum of 380,000 gallons/per/day.

At the present time the current water intake gallery is in disrepair. The proposed project is expected to meet current and predicted water use demand for the community of Klawock.

Additional Information -

Following the ACMP consistency review scheduled comment period, OPMP sent the project agent and applicant a list of the State's alternative measures, [that] if accepted by the applicant and incorporated into the project description, would allow the proposed project consistent with the ACMP (pursuant to 6 AAC 50 and 6 AAC 80.130 HABITATS). Per 6 AAC 80.130(C)(7), these alternative measures are necessary to minimize potential physical impacts to resident and anadromous fish species.

On June 18, 2004 OPMP received a copy of a signed and dated Project Amendment form from Mr. Trevor Sande of R&M Engineering of Ketchikan, the project agent. The project agent agreed to fully incorporate all of the recommended alternative measures - as follows:

1. Work below ordinary high water shall only be conducted only between June 15 and September 1.
2. Alteration of stream banks shall be minimized and restricted to that necessary for the work described. Disturbed stream banks shall be immediately re-contoured and stabilized to prevent erosion and sedimentation of the stream.
3. If blasting is necessary, measures and timing must be implemented to protect fish and fish eggs downstream of the tailrace from injury. Blasting shall only be conducted so that hydrostatic overpressure to fish habitat does not exceed 2.5 pounds per square inch at any time. Peak particle velocity shall not exceed 0.5 inches per second.

AUTHORIZATIONS:

The project must be found consistent with the ACMP before the following Federal and State authorizations may be issued:

U.S. Army Corps of Engineers
Section 404 Permit No. 4-2003-0158

Alaska Department of Environmental conservation (ADEC)
Certificate of Reasonable Assurance (401)

Alaska Department of Natural Resources ADNR)
Water Right LAS 22890

CONSISTENCY STATEMENT:

Based on an evaluation of this project by the Alaska Departments of Environmental Conservation and Natural Resources (Division of Mining, Land and Water, and Office of Habitat Management and Permitting), and the Klawock Coastal District, and the acceptance of State recommendations for the proposed project to achieve consistency with the standards of the ACMP, the State of Alaska concurs with the consistency certification submitted by the project applicant, City of Klawock and signed by Mr. Trevor Sande of R&M Engineering of Ketchikan— project agent.

State permits. State agencies shall issue permits within five days after OPMP issues the final consistency determination that concurs with the applicant's consistency certification, unless the resource agency considers additional time necessary to fulfill its statutory or regulatory authority.

Please note that, in addition to their consistency review, State agencies with permitting responsibilities will evaluate this proposed project according to their specific permitting authorities. Agencies will issue permits and authorizations only if they find the proposed project complies with their statutes and regulations in addition to being consistent with the coastal program. An agency permit of authorization may be denied even though the State concurs with the ACMP. Authorities outside the ACMP may result in additional permit/lease conditions. If a requirement set out in the project description (per 6 AAC 50.265) is more or less restrictive than a similar requirement in a resource agency authorization, the applicant shall comply with the more restrictive requirement. Applicants may not use any State land or water without DNR authorization.

This final consistency determination represents a consensus reached between you as the project applicant and the reviewing agencies listed above; regarding the conditions necessary to ensure the proposed project is consistent with the ACMP. We are informing the federal agency responsible for approving a federal authorization for your project that your original proposal has been modified subject to the conditions in this consistency determination.

This final consistency determination is a final administrative decision for purposes of Alaska Appellate Rules 601-612. Any appeal from this decision to the superior court must be made within 30 days of the date of this determination.

ADVISORIES:

Department of Natural Resources:

Division of Mining, Land and Water (Lands Section) – On March 31, 2004 OPMP received notification “[that] No land authorizations [were] required for DNR/Div. of Mining, Land and Water.”

Division of Mining, Land and Water (Water Section) - On September 7, 2004 OPMP received the following electronic message from the Southeast Water Resource office: “The Public Notice comment period for the water right is completed, and we received no evidence that would suggest that a decision on the water right might conflict with the ACMP Consistency as proposed, including the instream flow alternative measures recommended by OHMP. So you [OPMP] can proceed with the ACMP Consistency. ”

Office of Habitat Management and Permitting (OHMP) – On April 27, 2004 OPMP received the following written comments from the Craig representative of OHMP: “Habitats in the project area that are subject to the Alaska Coastal Management Program (ACMP) include wetlands, and rivers and streams. Each of these habitats must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat that contribute to its capacity to support living resources. In addition,

- wetlands must be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances; and
- rivers and streams must be managed to protect natural vegetation, water quality, important fish or wildlife habitat, and natural water flow.

The proposed gallery intake structure would be located in ADF&G stream number 103-60-10470-0010-2071-3045 (3045) which is listed in the Atlas and Catalog of Waters: Important for Spawning, Rearing or Migration of Anadromous Fishes as being important for coho salmon spawning and rearing. Spawning begins in September and continues through December. Eggs deposited in the gravel do not complete hatching into free-swimming fry until mid-June. In-water activities such as those being proposed by the applicant can represent a significant disturbance to both juvenile and adult fish during this time period. Stream 3045 has been found to be one of the major tributaries to Threemile Creek, stream number 103-60-1047-0010-2071 (2071) cataloged for pink, coho, and sockeye salmon, and also containing cutthroat trout and Dolly Varden char. The proposed water withdrawal from stream 3045 associated with the intake gallery has the potential to negatively impact important downstream fish habitat in stream 2071.

Upon receipt of the Final Consistency Determination, OHMP will issue a Title 41 Fish Habitat Permit to the City of Klawock for the proposed in-water activities.”

The OHMP comments included the recommendations and rationales listed in the DESCRIPTION OF PROJECT SUBJECT TO ACMP REVIEW, under "Additional Information", above.

Additional Advisory –

During the comment period the Department of Transportation and Public Facilities (ADOT/PF) expressed concerns about the fact that the water supply line running from the impoundment to the municipal distribution system would be using portions of the right of way on roads in the Klawock area that are under the jurisdiction of ADOT/PF. OPMP would agree that while this is of concern to the State - the City of Klawock, the project agent, and representatives of ADOT/PF would be best served to jointly review the positioning of such water supply lines in the final design stages, and reach an agreement for the use of State road right-of-way area.

This consistency determination may include reference to specific laws and regulations, but this in no way precludes an applicant's responsibility to comply with all other applicable State and federal laws and regulations.

This consistency determination is only for the project as described. If, after issuance of a final consistency determination or response, the applicant proposes any changes to the approved project, including its intended use, prior to or during its siting, construction, or operation, the applicant must contact this office immediately to determine if further review and approval of the modifications to the project is necessary. Changes may require amendments to the State authorizations listed in this determination or response, or may require additional authorizations.

If the proposed activities reveal cultural or paleontological resources, the applicant is to stop any work that would disturb such resources and immediately contact the State Historic Preservation Office (907-269-8720) and the U.S. Army Corps of Engineers (907-753-2712) so that consultation per section 106 of the National Historic Preservation Act may proceed.

FINAL CONSISTENCY DETERMINATION PREPARED BY:

Joe Donohue – ACMP Project Specialist
302 Gold Street, Ste. 202
Juneau, Alaska 99811-0030
(907) 465-4664



Joe Donohue

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATE OF REASONABLE ASSURANCE

A Certificate of Reasonable Assurance, in accordance with Section 401 of the federal Clean Water Act and the Alaska Water Quality Standards, is issued to the City of Klawock, PO Box 469, Klawock, Alaska 99925, for the proposed construction of a water intake structure and installation of a water pipeline within wetlands. The water intake structure will be located within a dam, which will be constructed across a creek.

The proposed activity is located within section 16, T73S, R81E, CRM, on the north fork of Threemile Creek, Klawock, Alaska.

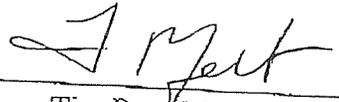
Public notice of the application for this certification was given as required by 18 AAC 15.180.

Water Quality Certification is required under Section 401 because the proposed activity will be authorized by a Corps of Engineers permit, reference number 4-2003-0158, and a discharge may result from the proposed activity.

Having reviewed the application and comments received in response to the public notice, the Alaska Department of Environmental Conservation certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, will comply with applicable provisions of Section 401 of the Clean Water Act and the Alaska Water Quality Standards, 18 AAC 70, provided that the following alternative measure is adhered to.

1. Installation of the intake gallery structure and rock dam shall not occur within the flowing waters of the stream. Techniques such as stream diversion, cofferdaming, dam and pump, or stream fluming shall be incorporated into the installation activity, to allow work to be done in the dry and to insure that silt laden water is not carried down stream.

Date 6/30/04



Tim Rumpfelt
Environmental Specialist

Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in, or affecting, navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine Uses: Information provided on this form will be used in evaluating the application for a permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME CITY OF KLAWOCK	8. AUTHORIZED AGENT'S NAME AND TITLE <i>(an agent is not required)</i> TREVOR SANDE, PRESIDENT
6. APPLICANT'S ADDRESS PO BOX 469 KLAWOCK AK 99925	9. AGENT'S ADDRESS R&M ENGINEERING-KETCHIKAN, I 355 CARLANNA LAKE ROAD KETCHIKAN AK 99901
7. APPLICANT'S PHONE NOS. W/AREA CODE a. Residence b. Business (907) 755-2261	10. AGENT'S PHONE NOS. W/AREA CODE a. Residence b. Business (907) 225-3441

11. STATEMENT OF AUTHORIZATION
I hereby authorize, TREVOR SANDE to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE <i>(see instructions)</i> NORTH FORK THREEMILE CREEK WATER SUPPLY	14. PROJECT STREET ADDRESS <i>(if applicable)</i> N/A
13. NAME OF WATERBODY, IF KNOWN <i>(if applicable)</i> THREEMILE CREEK	
15. LOCATION OF PROJECT KLAUOCK COUNTY ALASKA STATE	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN, *(see instructions)*
NORTH FORK

17. DIRECTIONS TO THE SITE START AT THE INTERSECTION OF BOUNDARY ROAD, AND THE KLAWOCK-HOLLIS HIGHWAY IN KLAWOCK, ALASKA. PROCEED EAST 3.7 MILES TO AN UNNAMED LOGGING ROAD TO THE NORTH. PROCEED TO END OF LOGGING ROAD, FOLLOWING THE ROAD UNTIL IT BECOMES IMPASSABLE. WALK APPROXIMATELY 600 FEET TO THE CREEK. SITE IS ± 800 FEET UPSTREAM.

18. Nature of Activity (Description of project, include all features)

CONSTRUCTION OF AN INTAKE GALLERY STRUCTURE IN THE NORTH FORK OF THREEMILE CREEK FOR PUBLIC WATER SUPPLY TO THE CTY OF KLAOCK.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

TO PROVIDE PUBLIC WATER SUPPLY.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

N/A

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

N/A

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

N/A

23. Is Any Portion of the Work Already Complete? Yes No IF YES DESCRIBE THE COMPLETED WORK

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

KLAOCK HEENYA CORPORATION
PO BOX 129
KLAOCK AK 99925
ATTN: BILL PERATOVICH

USDA FOREST SERVICE

25. List of Other Certifications or Approvals/Denials Received from other Federal, State or Local Agencies for Work Described in This Application.

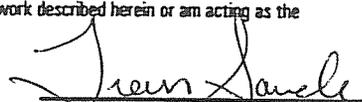
AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
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*Would include but is not restricted to zoning, building and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE



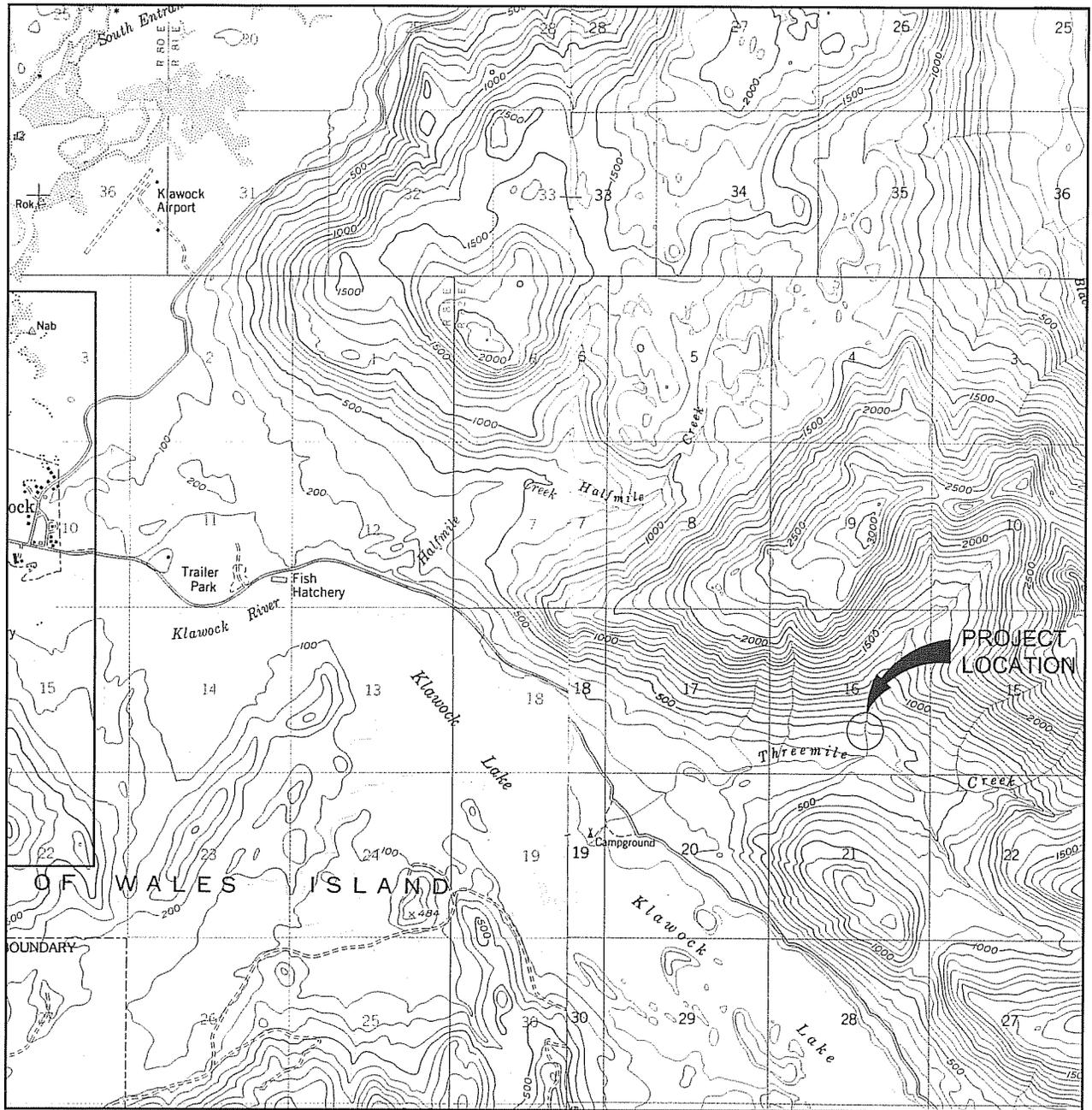
SIGNATURE OF AGENT

Aug 22, 2003

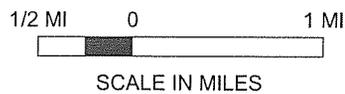
DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



VICINITY MAP



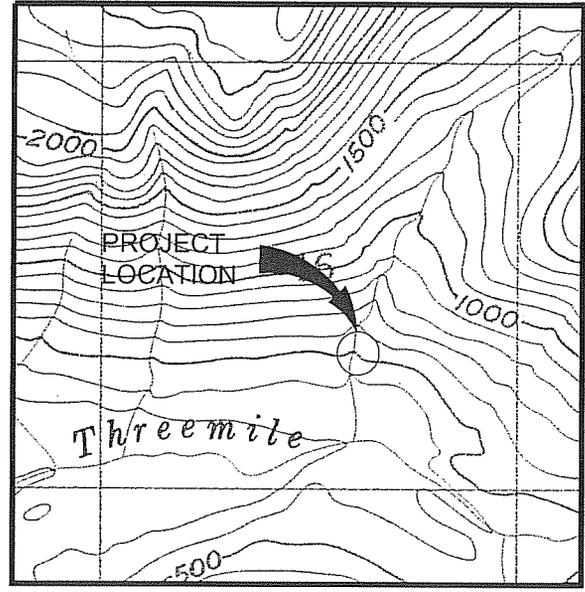
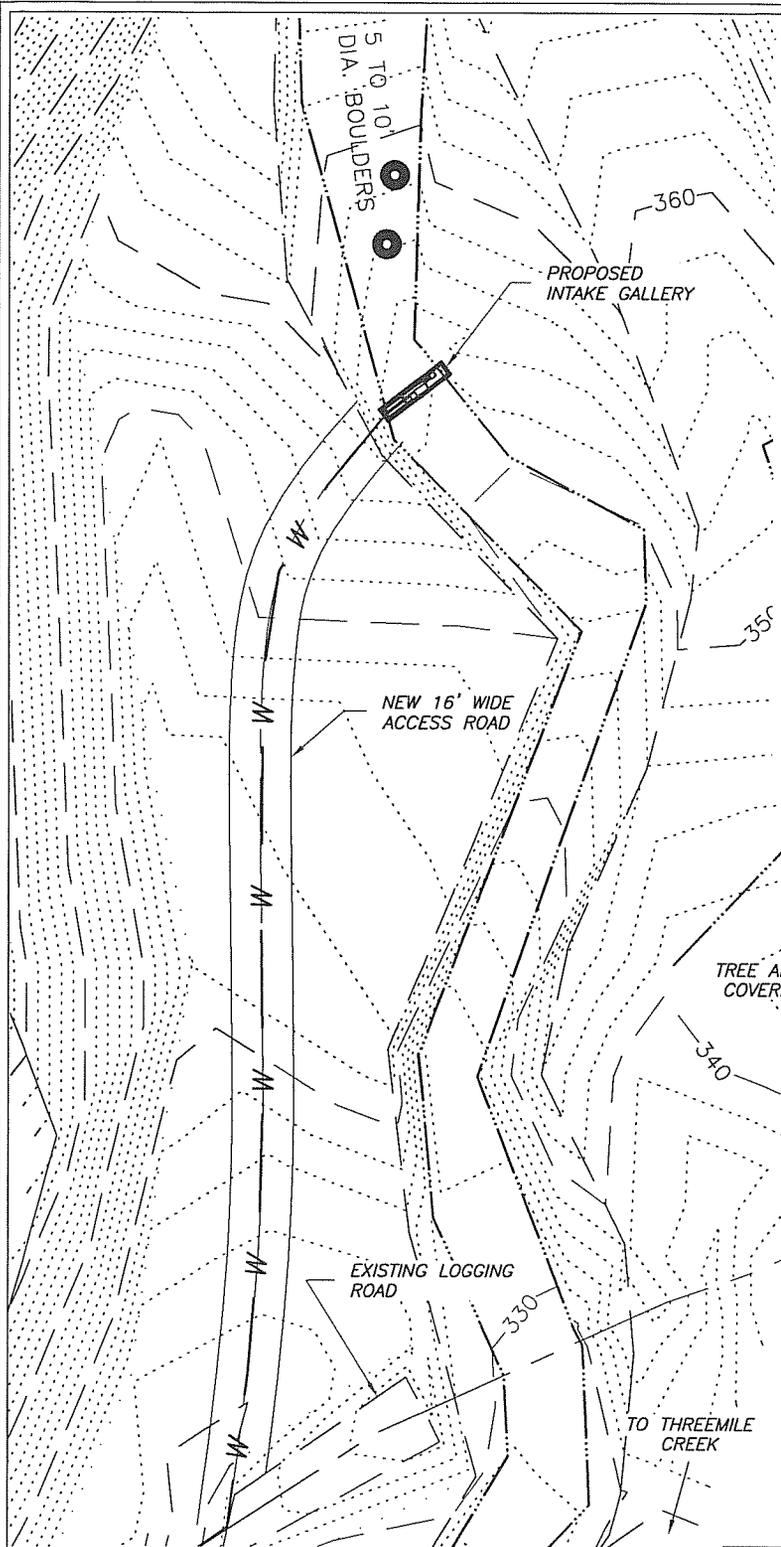
NORTH FORK THREEMILE CREEK WATER SUPPLY
 INTAKE GALLERY STRUCTURE FOR PUBLIC WATER SUPPLY
 TO THE CITY OF KLAWOCK

APPLICANT:
 CITY OF KLAWOCK
 P.O. BOX 469
 KLAWOCK, AK 99925

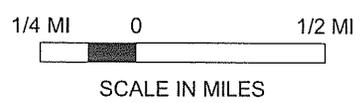
AGENT:
 R&M ENGINEERING-KETCHIKAN
 355 CARLANNA LAKE ROAD
 KETCHIKAN, AK 99901

DATE: 8/25/03
 SHEET: 1 OF 4

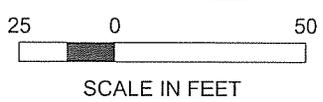
LOCATION: CITY OF KLAWOCK
 WATER BODY: THREEMILE CREEK



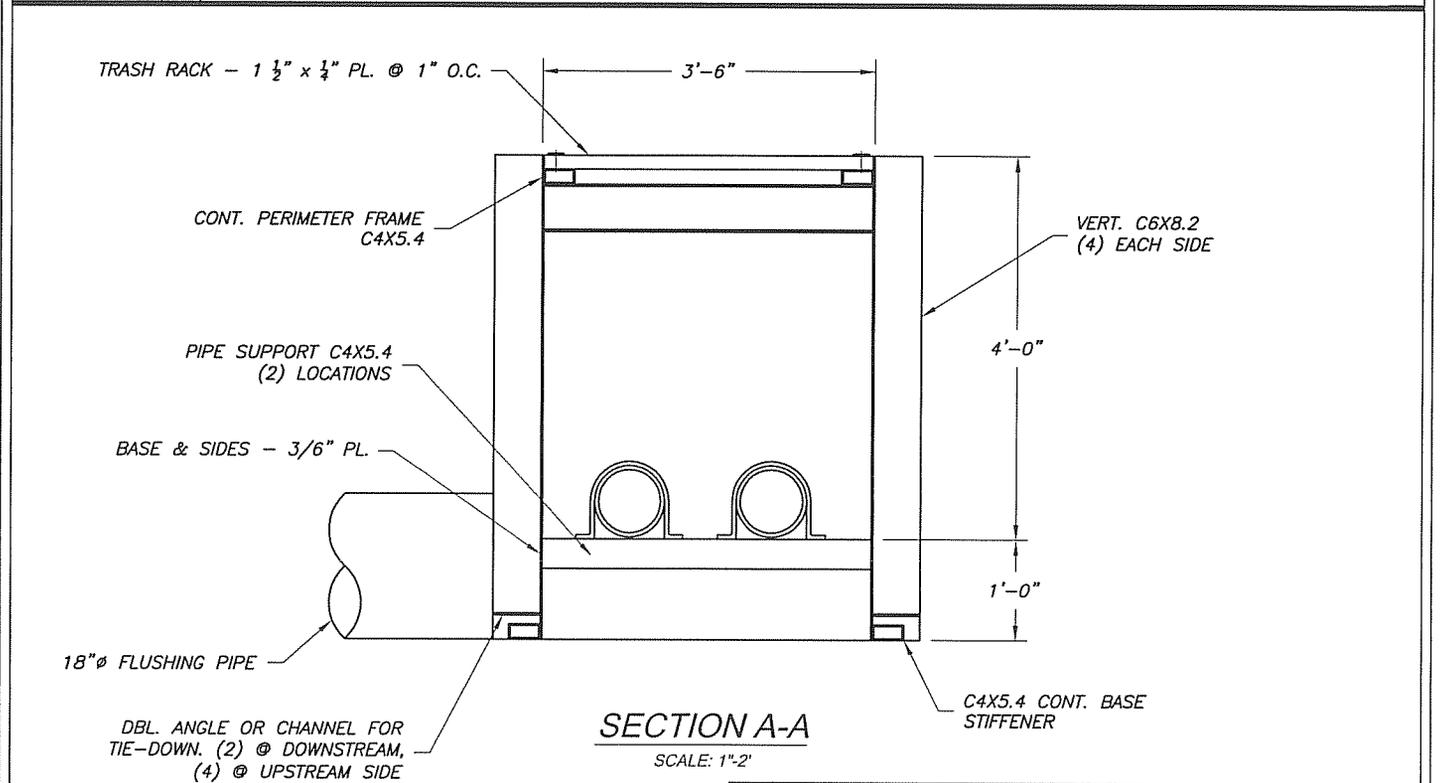
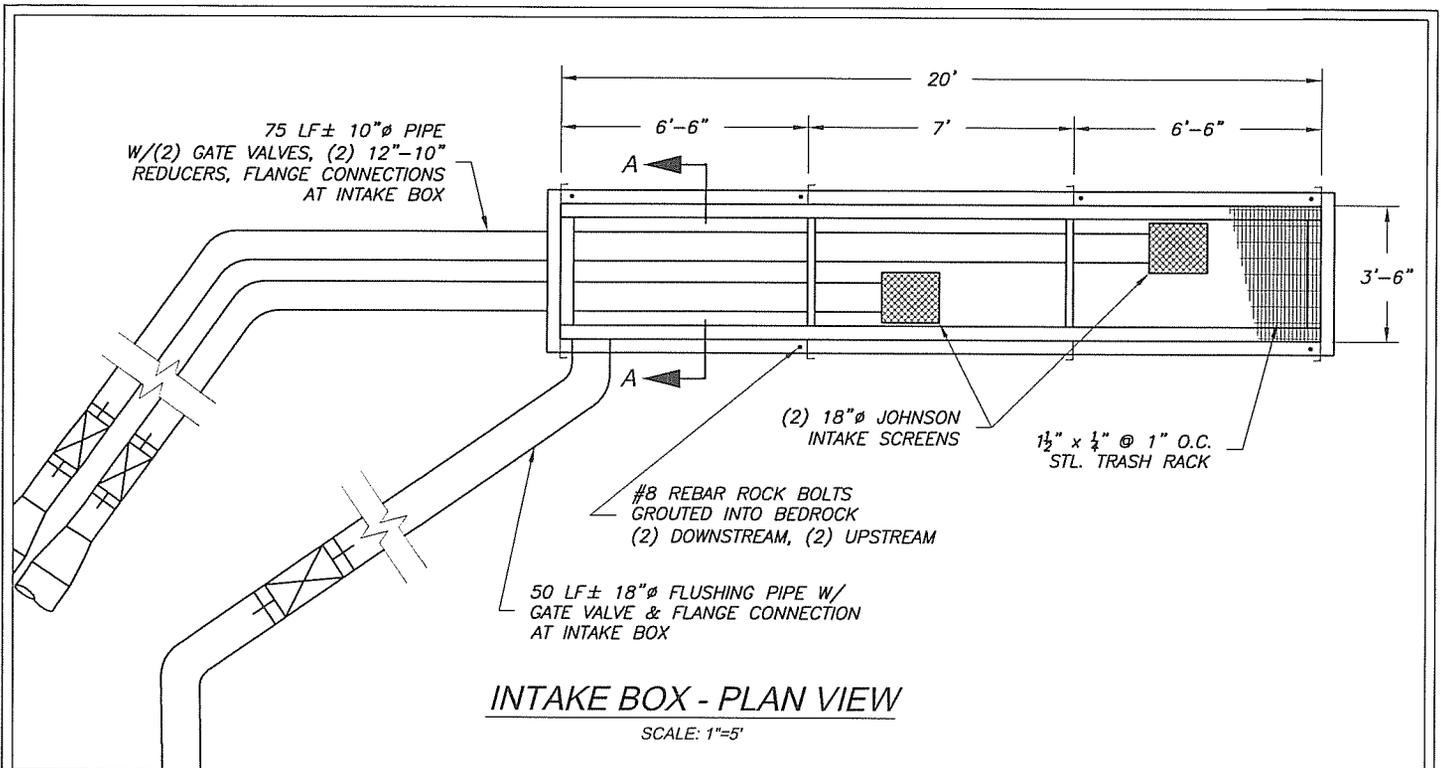
VICINITY MAP



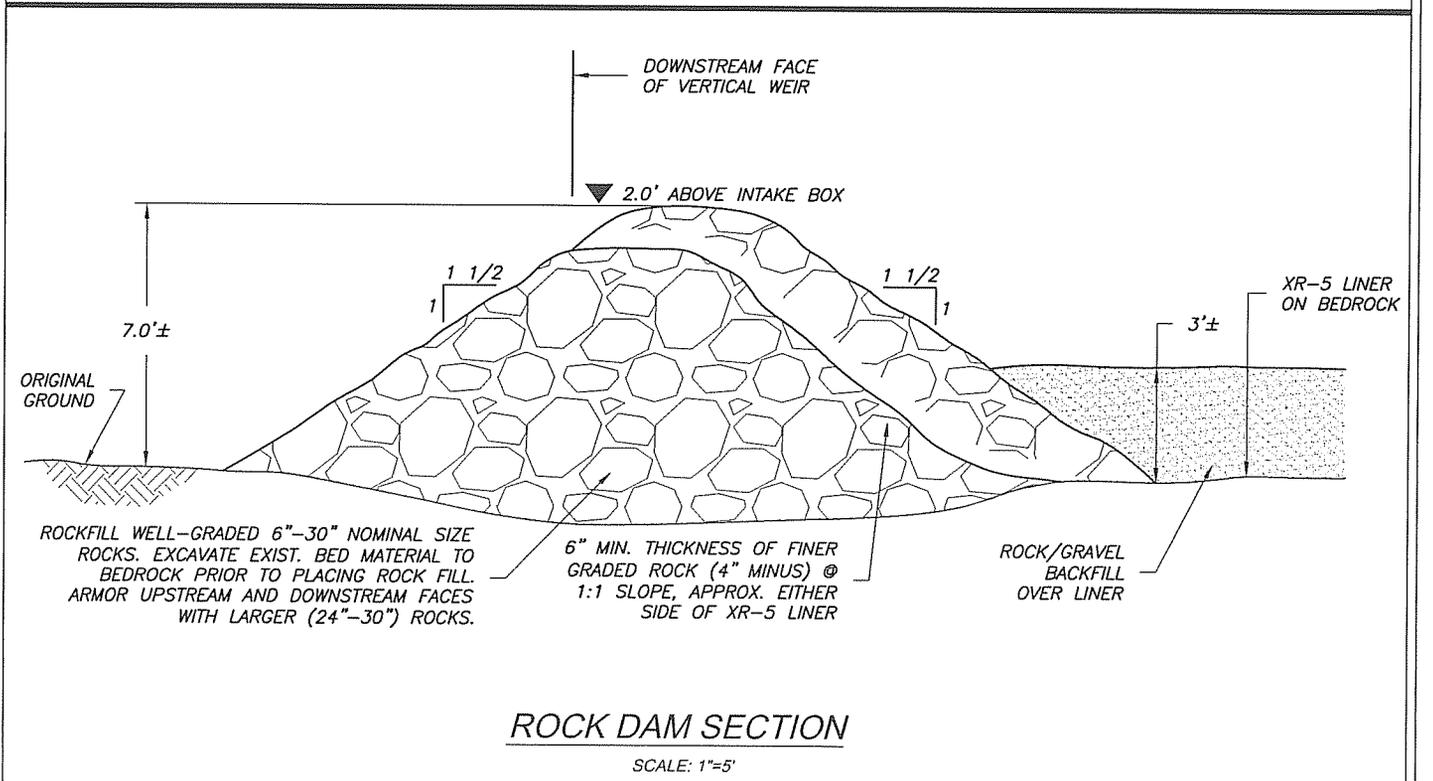
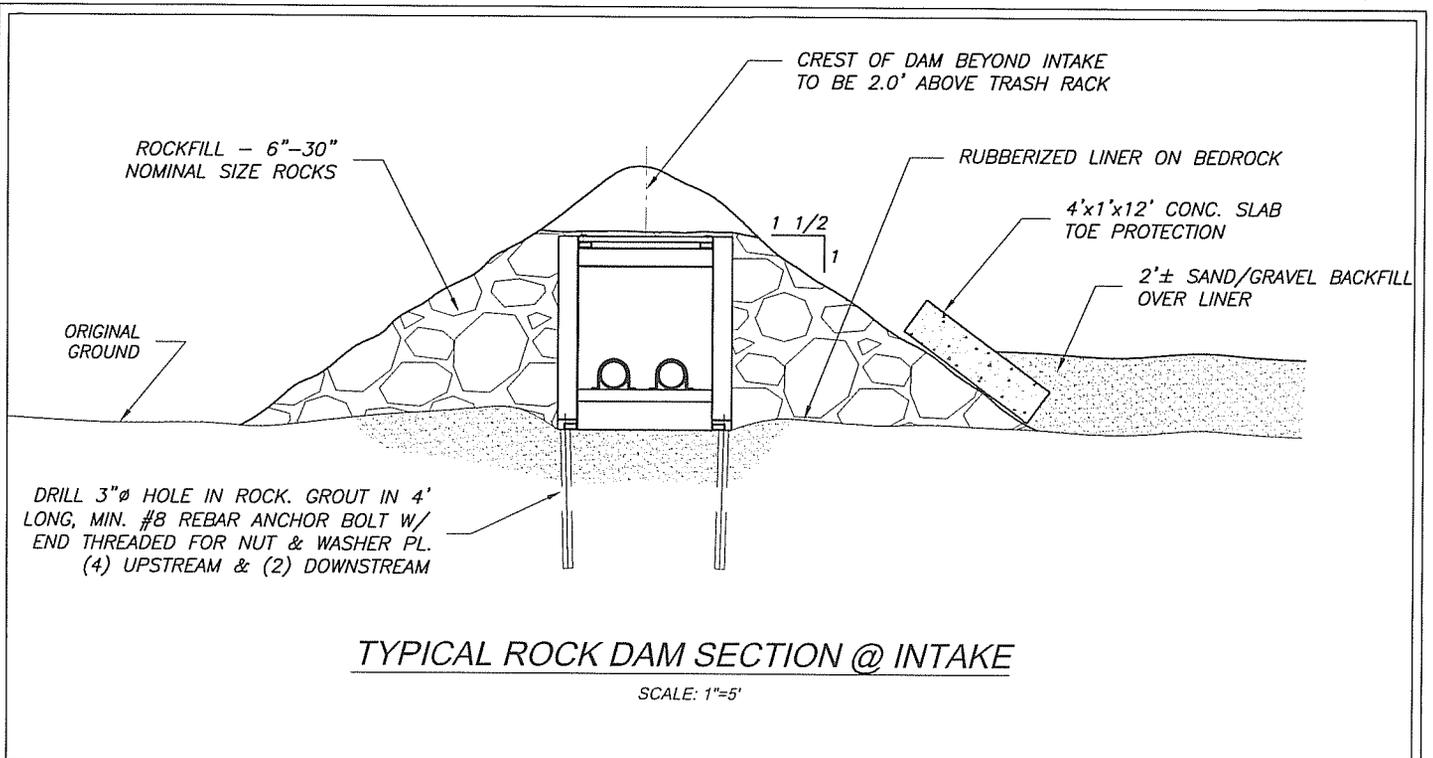
SITE PLAN



NORTH FORK THREEMILE CREEK WATER SUPPLY	
INTAKE GALLERY STRUCTURE FOR PUBLIC WATER SUPPLY TO THE CITY OF Klawock	
APPLICANT: CITY OF Klawock P.O. BOX 469 Klawock, AK 99925	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 8/25/03 SHEET: 2 OF 4	LOCATION: CITY OF Klawock WATER BODY: THREEMILE CREEK



NORTH FORK THREEMILE CREEK WATER SUPPLY	
INTAKE GALLERY STRUCTURE FOR PUBLIC WATER SUPPLY TO THE CITY OF KLAWOCK	
APPLICANT: CITY OF KLAWOCK P.O. BOX 469 KLAWOCK, AK 99925	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 8/25/03 SHEET: 3 OF 4	LOCATION: CITY OF KLAWOCK WATER BODY: THREEMILE CREEK



NORTH FORK THREEMILE CREEK WATER SUPPLY	
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DATE: 8/25/03 SHEET: 4 OF 4	LOCATION: CITY OF KLAWOCK WATER BODY: THREEMILE CREEK



This notice of authorization must be conspicuously displayed at the site of work.

United States Army Corps of Engineers
Threemile Creek

A permit to: DISCHARGE APPROXIMATELY 355 CUBIC YARDS OF SHOTROCK INTO 0.176 ACRES (7,700 SQUARE FEET) OF WETLANDS TO INSTALL A WATER PIPELINE WITHIN AN ACCESS ROAD. INSTALL AN INTAKE GALLERY STRUCTURE INVOLVING THE DISCHARGE OF APPROXIMATELY 115 CUBIC YARDS OF 5-INCH TO 30-INCH ROCKS, ONE 4-FOOT BY 12-FOOT BY 1-FOOT CONCRETE SLAB TO PROVIDE TOE PROTECTION, AND A GRAVEL LINER 2-foot in depth into a total of 0.2-acres (882 square feet) water of the U.S.

at: SECTION 16, T. 73 S., R. 81 E., COPPER RIVER MERIDIAN, LATITUDE 55.5378 N, LONGITUDE -132.9536 W., NEAR KLAWOCK, ALASKA.

has been issued to: CITY OF KLAWOCK on JANUARY 27 2005

Address of Permittee: P.O. BOX 469, KLAWOCK, AK 99925

Permit Number

POA-2000-158-4

FOR: *Carlos Paz*
District Commander
CARLOS PAEZ
REGULATORY SPECIALIST
EAST SECTION
(Proponent: CECW-O)

ENG FORM 4336, Jul 81 (33 CFR 320-330) EDITION OF JUL 70 MAY BE USED



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-6898

JANUARY 27 2005

Regulatory Branch
East Section
POA-2000-158-4

Mr. Trevor Sande
R&M Engineering
355 Carlanna Lake Road, Suite 200
Ketchikan, Alaska 99901

Dear Mr. Sande:

Enclosed is the signed Department of the Army permit, POA-2000-158-4, Threemile Creek, authorizing installation of a water pipeline within an access road in Klawock, Alaska. Also enclosed is a Notice of Authorization which should be posted in a prominent location near the authorized work.

If changes in the plans or location of the work are necessary for any reason, plans should be submitted to this office promptly. Federal law requires approval before construction is begun; if the changes are unobjectionable, approval will be issued without delay.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations which may affect the proposed work.

Please take a moment to complete and return the enclosed questionnaire. Our interest is to see how we can continue to improve our service to you, our customer, and how best to achieve these improvements. Upon your request, you may also provide additional comments by telephone or a meeting. We appreciate your efforts and interest in evaluating the Regulatory Program.

Please contact me at (907) 753-2720, toll free from within Alaska at (800) 478-2712, or by mail at the address above, ATTN: CEPOA-CO-R-E, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

A handwritten signature in cursive script that reads "Carlos Paez".

Carlos Paez
Regulatory Specialist

Enclosure(s)

DEPARTMENT OF THE ARMY PERMIT

Permittee: City of Klawock

Permit No.: POA-2000-158-4, Three Mile Creek

Issuing Office: U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Discharge approximately 355 cubic yards of shotrock into 0.176 acres (7,700 square feet) of wetlands to install a water pipeline within an access road. Install an intake gallery structure involving the discharge of approximately 115 cubic yards of 5-inch to 30-inch rocks, one 4-foot by 12-foot by 1-foot concrete slab to provide toe protection, and a gravel liner 2-foot in depth, into a total of 0.2-acres (882 square feet) water of the U.S.

All work will be performed in accordance with the attached plan, sheets [1-6], dated August 25, 2003.

Project Location: Section 16, T. 73 S., R. 81 E., Copper River Meridian, Latitude 55°32'16" N, Longitude 132°57'13" W., near Klawock, Alaska.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on November 30, 2007. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. Work below ordinary high water mark will occur only between June 15 and September 1.
2. Alteration of stream banks will be minimized and restricted to that necessary for the work described. Disturbed stream banks will be immediately re-contoured and stabilized to prevent erosion and sedimentation to the stream.
3. If blasting is necessary, measures and timing must be implemented to protect fish and fish eggs downstream. Blasting will only be conducted so that hydrostatic overpressure to fish habitat does not exceed 2.5 pounds per square inch at any time. Peak particle velocity will not exceed 0.5 inches per second.
4. The permittee will at all times operate the intake gallery in a manner that protects the aquatic life downstream of the project. Follow the methods in the chart as provided within the Final ACMP Consistency Determination letter, dated September 14, 2004.
5. Vehicles and equipment will not be fueled in the floodplain below the ordinary high water mark.

Special Information:

Any condition incorporated by reference into this permit by General Condition 5, remains a condition of this permit unless expressly modified or deleted, in writing, by the District Engineer or his authorized representative.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Donald Martin Mayor
(PERMITTEE) AND TITLE

January 18, 2005
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

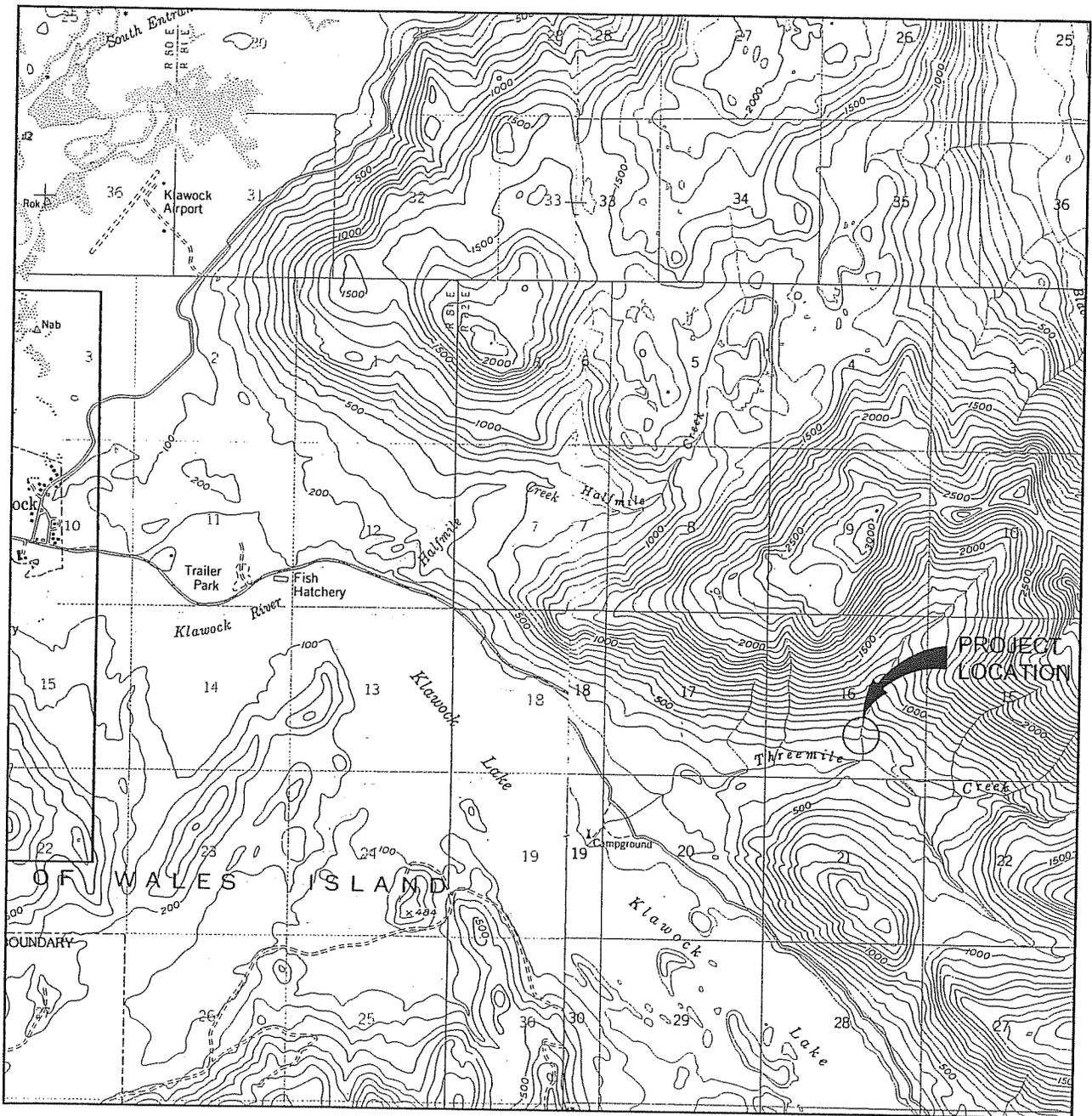
Carlos Paez
FOR: (DISTRICT ENGINEER) Colonel Timothy J. Gallagher
Carlos Paez, Regulatory Specialist
Regulatory Branch, East Section

January 26, 2005
(DATE)

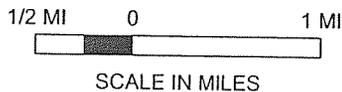
When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

(TRANSFEREE)

(DATE)

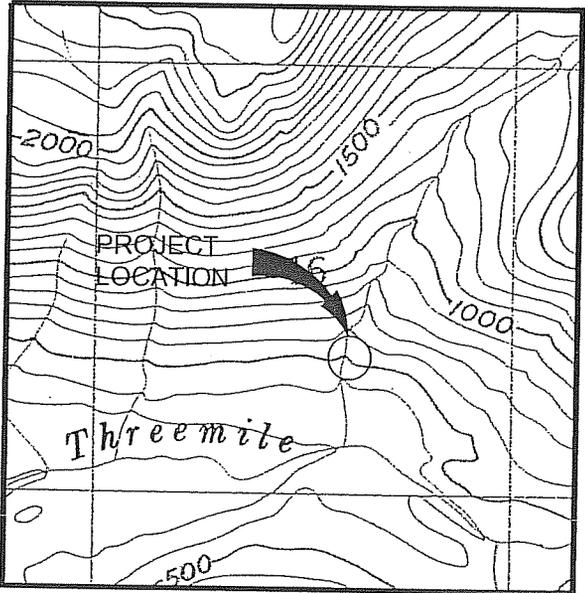
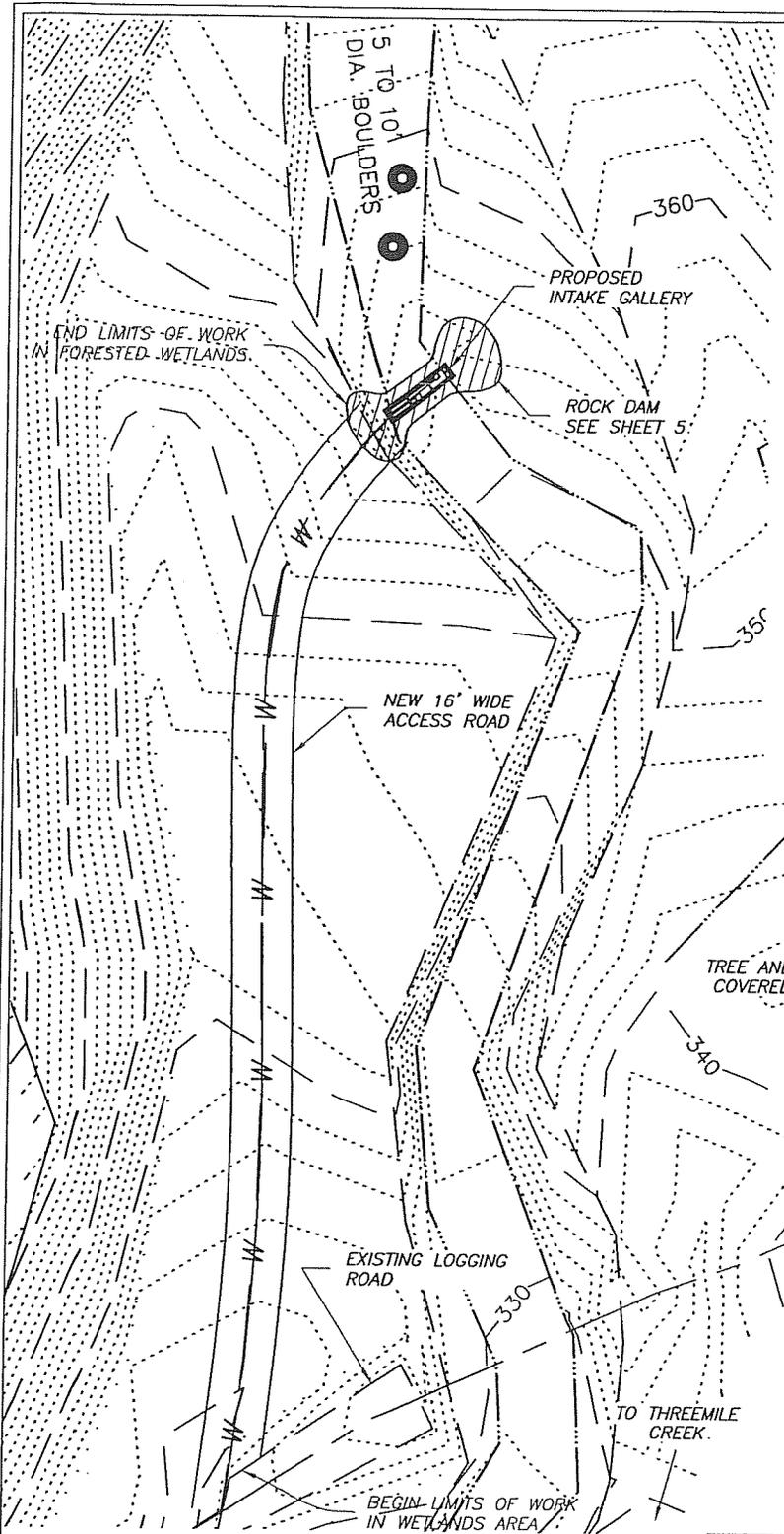


VICINITY MAP

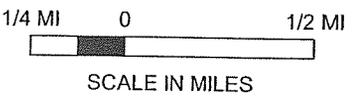


City of Klawock, Alaska
POA-2000-158

NORTH FORK THREEMILE CREEK WATER SUPPLY	
INTAKE GALLERY STRUCTURE FOR PUBLIC WATER SUPPLY TO THE CITY OF KLAWOCK	
APPLICANT: CITY OF KLAWOCK P.O. BOX 469 KLAWOCK, AK 99925	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 8/25/03 SHEET: 1 OF 6	LOCATION: CITY OF KLAWOCK WATER BODY: THREEMILE CREEK



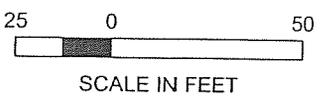
VICINITY MAP



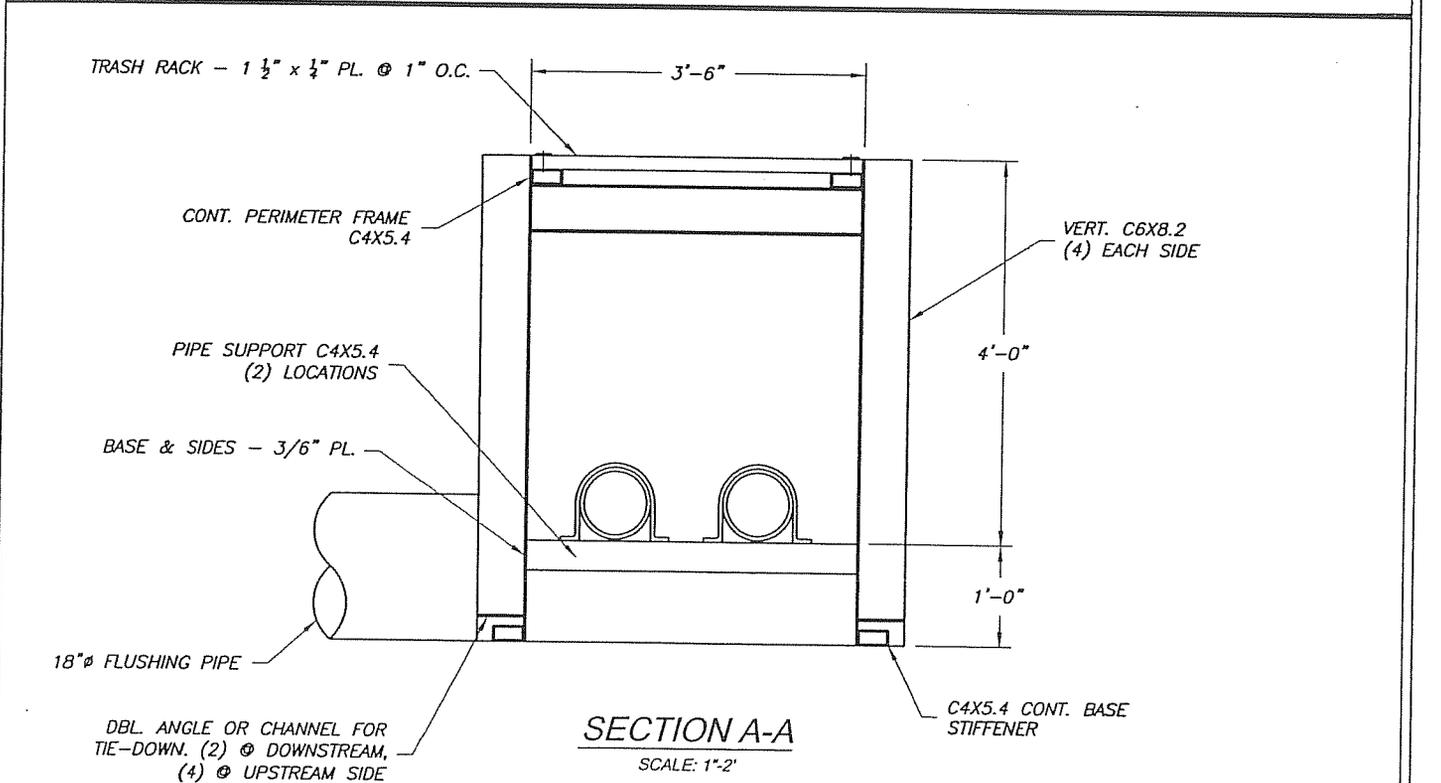
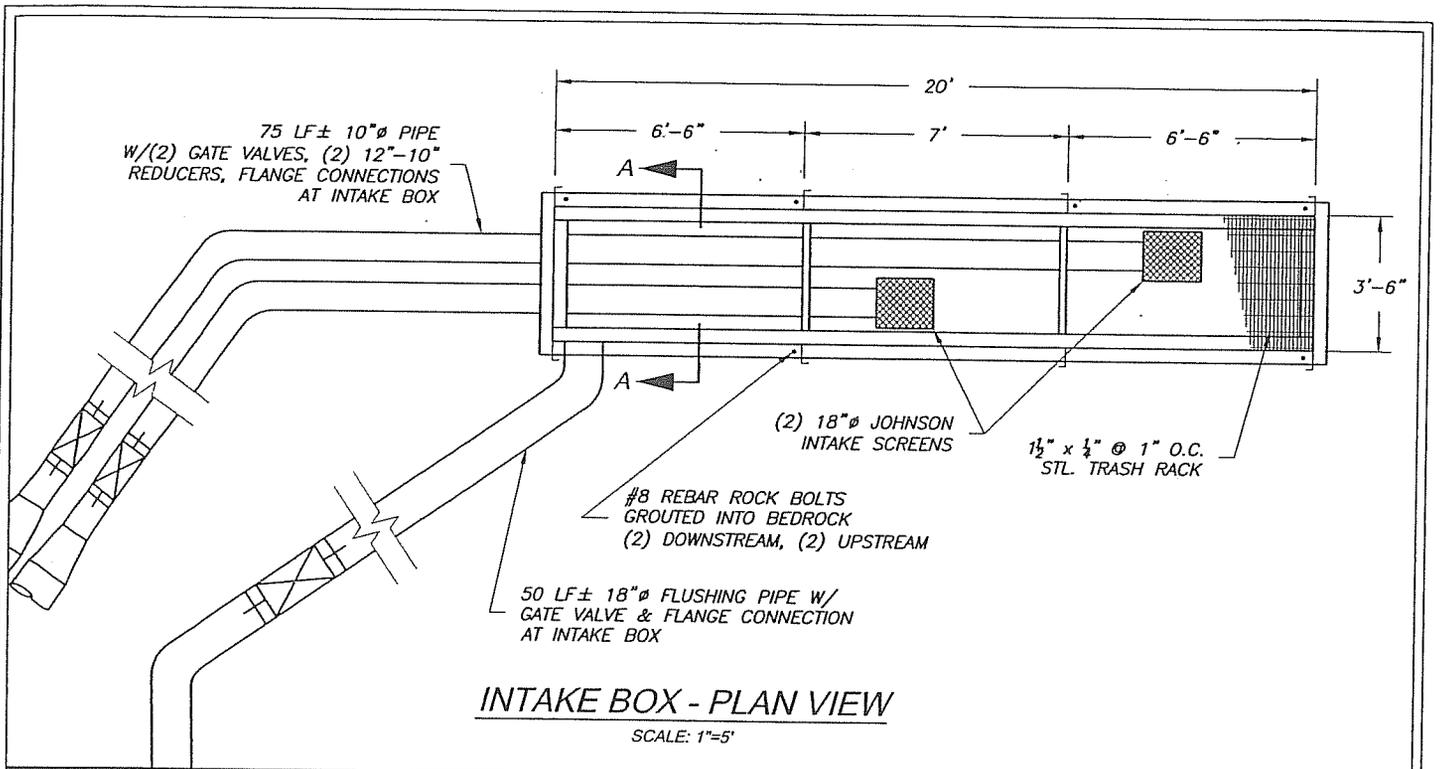
TREE AND DEADFALL COVERED TERRACE

City of Klawock, Alaska
POA-2000-158

SITE PLAN

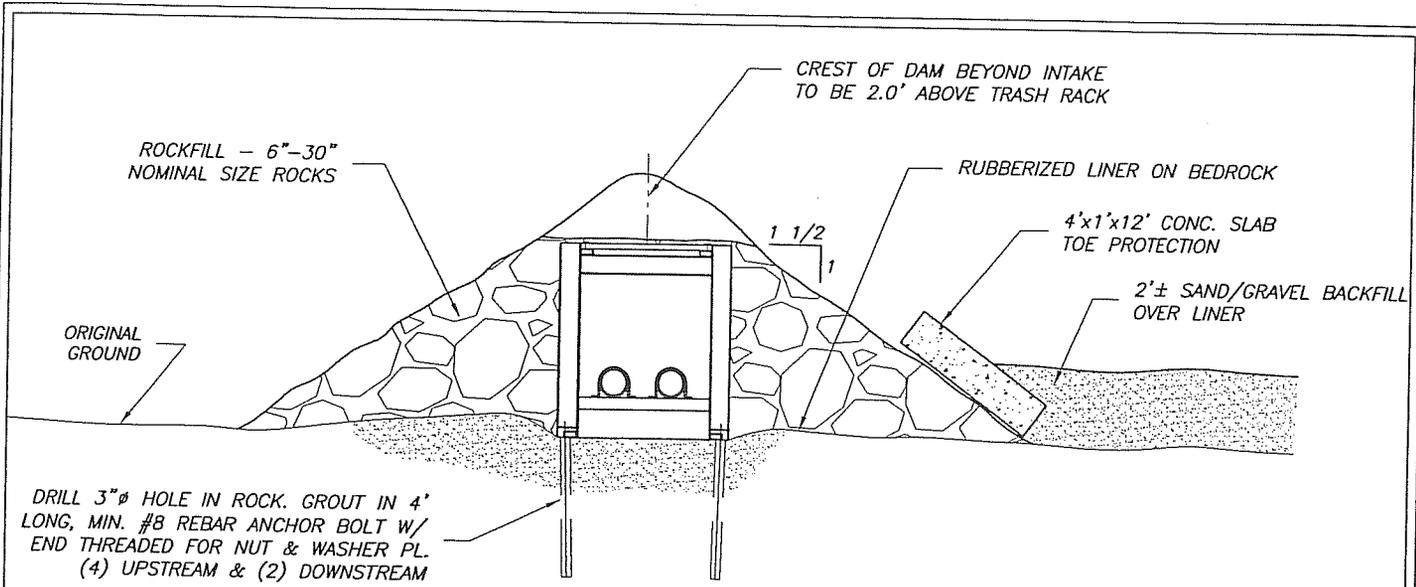


NORTH FORK THREEMILE CREEK WATER SUPPLY INTAKE GALLERY STRUCTURE FOR PUBLIC WATER SUPPLY TO THE CITY OF KLAWOCK	
APPLICANT: CITY OF KLAWOCK P.O. BOX 469 KLAWOCK, AK 99925	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 8/25/03 SHEET: 2 OF 6	LOCATION: CITY OF KLAWOCK WATER BODY: THREEMILE CREEK



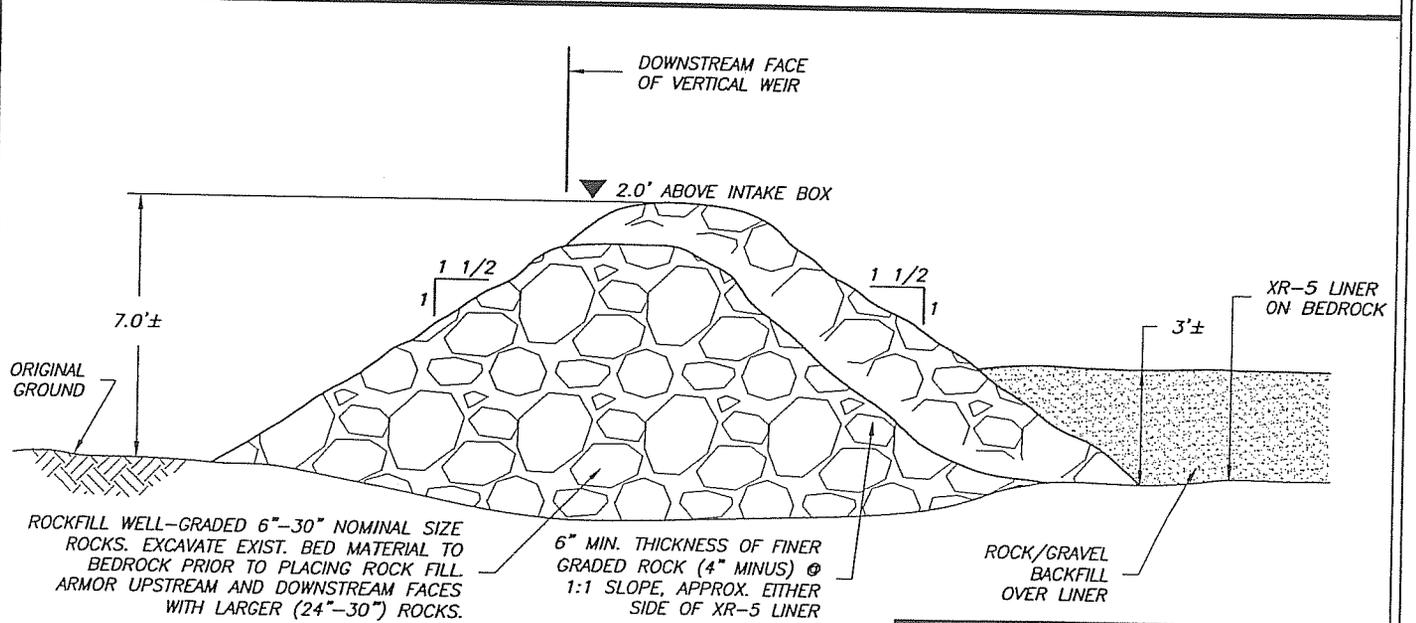
City of Klawock, Alaska
POA-2000-158

NORTH FORK THREEMILE CREEK WATER SUPPLY	
INTAKE GALLERY STRUCTURE FOR PUBLIC WATER SUPPLY TO THE CITY OF KLAWOOCK	
APPLICANT: CITY OF KLAWOOCK P.O. BOX 469 KLAWOOCK, AK 99925	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 8/25/03 SHEET: 3 OF 6	LOCATION: CITY OF KLAWOOCK WATER BODY: THREEMILE CREEK



TYPICAL ROCK DAM SECTION @ INTAKE

SCALE: 1"=5'

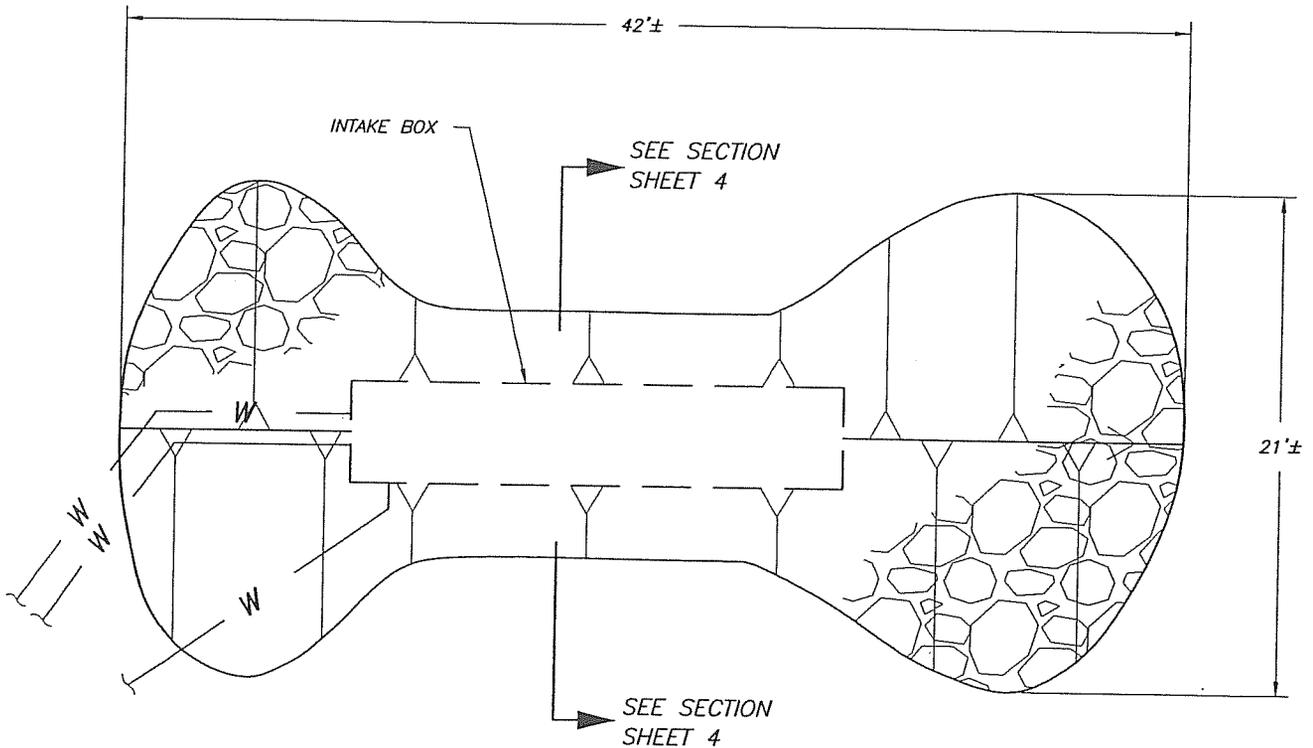


ROCK DAM SECTION

SCALE: 1"=5'

City of Klawock, Alaska
POA-2000-158

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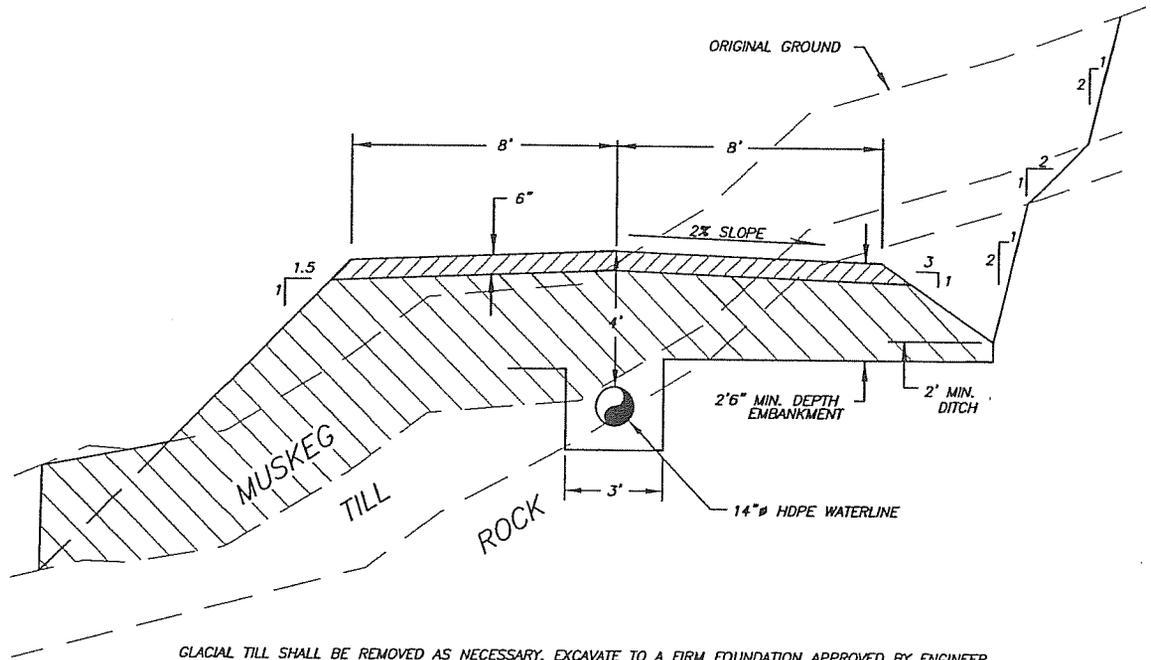


ROCK DAM - PLAN VIEW

SCALE: 1"=5'

City of Klawock, Alaska
POA-2000-158

NORTH FORK THREEMILE CREEK WATER SUPPLY	
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DATE: 8/25/03 SHEET: 5 OF 6	LOCATION: CITY OF KLAWOCK WATER BODY: THREEMILE CREEK



TYPICAL ROADWAY SECTION
 NOT TO SCALE

City of Klawock, Alaska
 POA-2000-158

NORTH FORK THREEMILE CREEK WATER SUPPLY	
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