

PRELIMINARY ENVIRONMENTAL INVESTIGATIONS
of
EXISTING WASTE SITES
in the
YUKON TERRITORIES

SITE 19 - CRACKER CREEK - HJ 33
SITE 20 - CANYON CREEK HJ 34
SITE 42 - HAYES CREEK NORANDA CAMP CA 35

prepared for

INDIAN AND NORTHERN AFFAIRS CANADA

under

CONTRACT NO. 96-6129

FINAL REPORT

March 1997

Prepared by

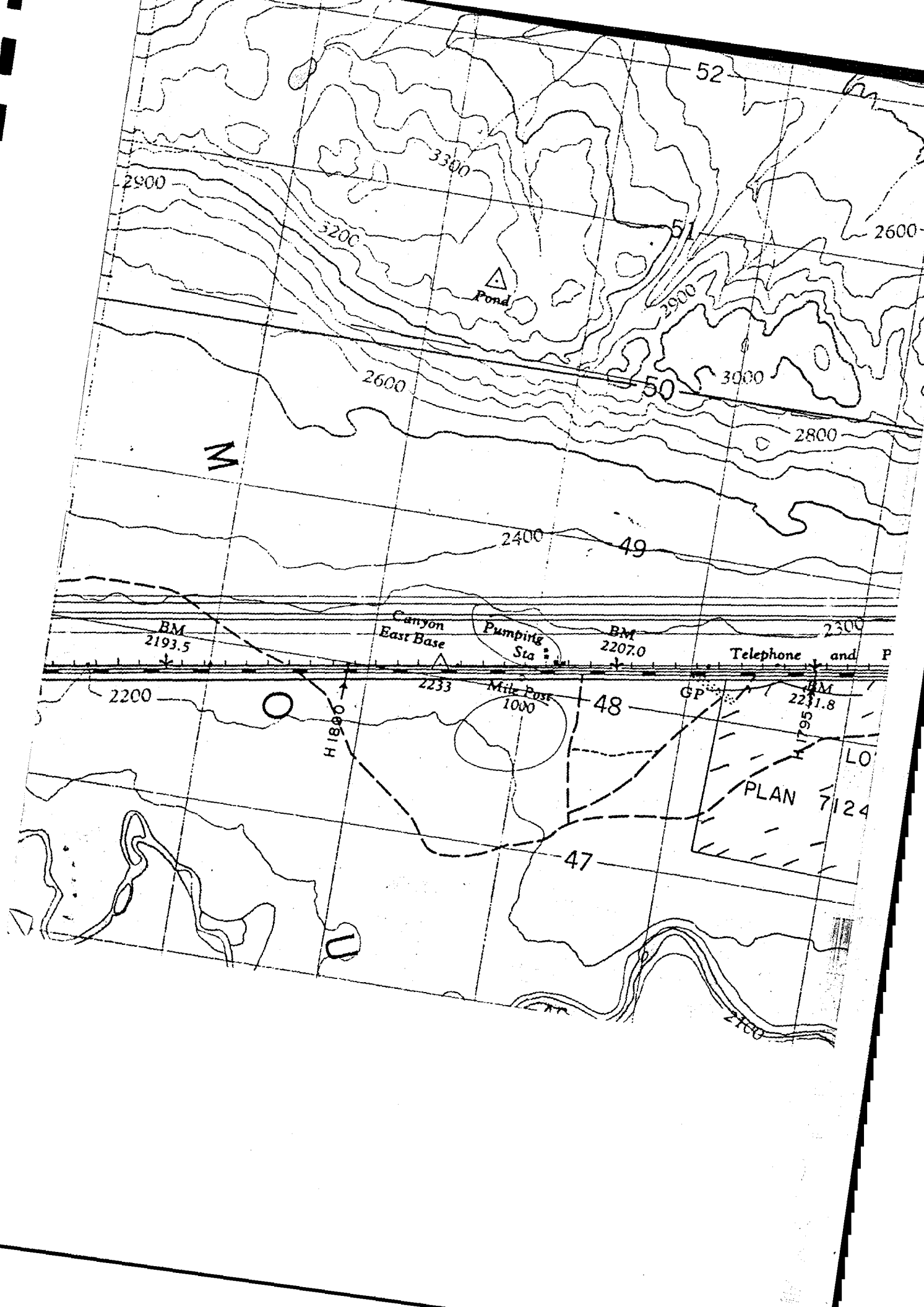


MDA ENVIRONMENTAL LIMITED
241 Dunsdon Street, Suite 405
BRANTFORD, ONTARIO
N3R 7C3

Telephone (519)758-1997
Facsimile (519)758-8399

APPENDICES

APPENDIX No. 1
Copies of land ownership maps
Obtained from Yulon Territorial Government, Fall 1996



2900

52

3300

3200

2600

Pond

2900

2600

50

3000

2800

M

2400

49

BM
2193.5

Canyon
East Base

Pumping
Sta.

BM
2207.0

Telephone and P

2300

2200

H 1800

2233

Mile Post
1000

48

GP

BM
2231.8

PLAN 7124

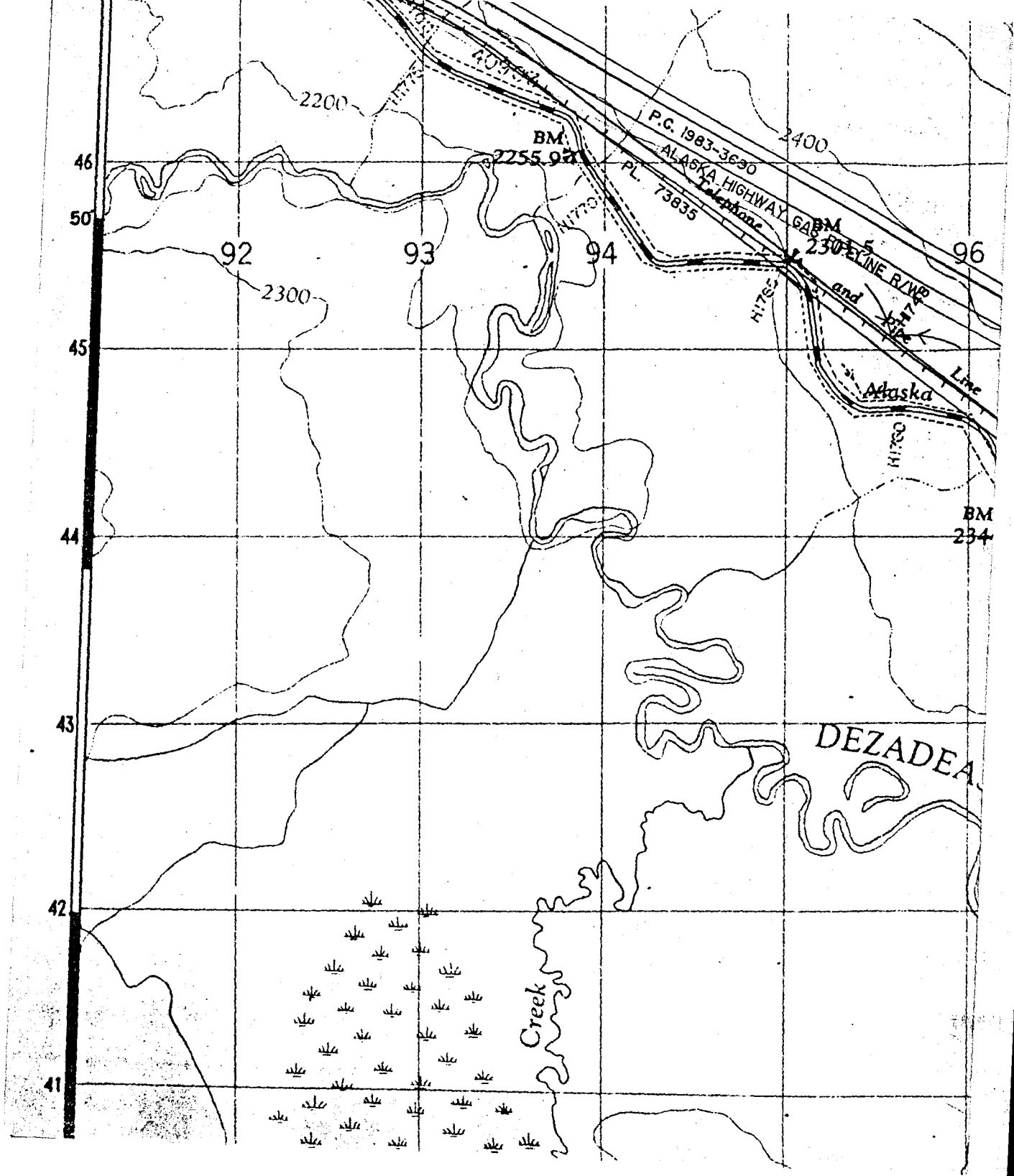
H 1795

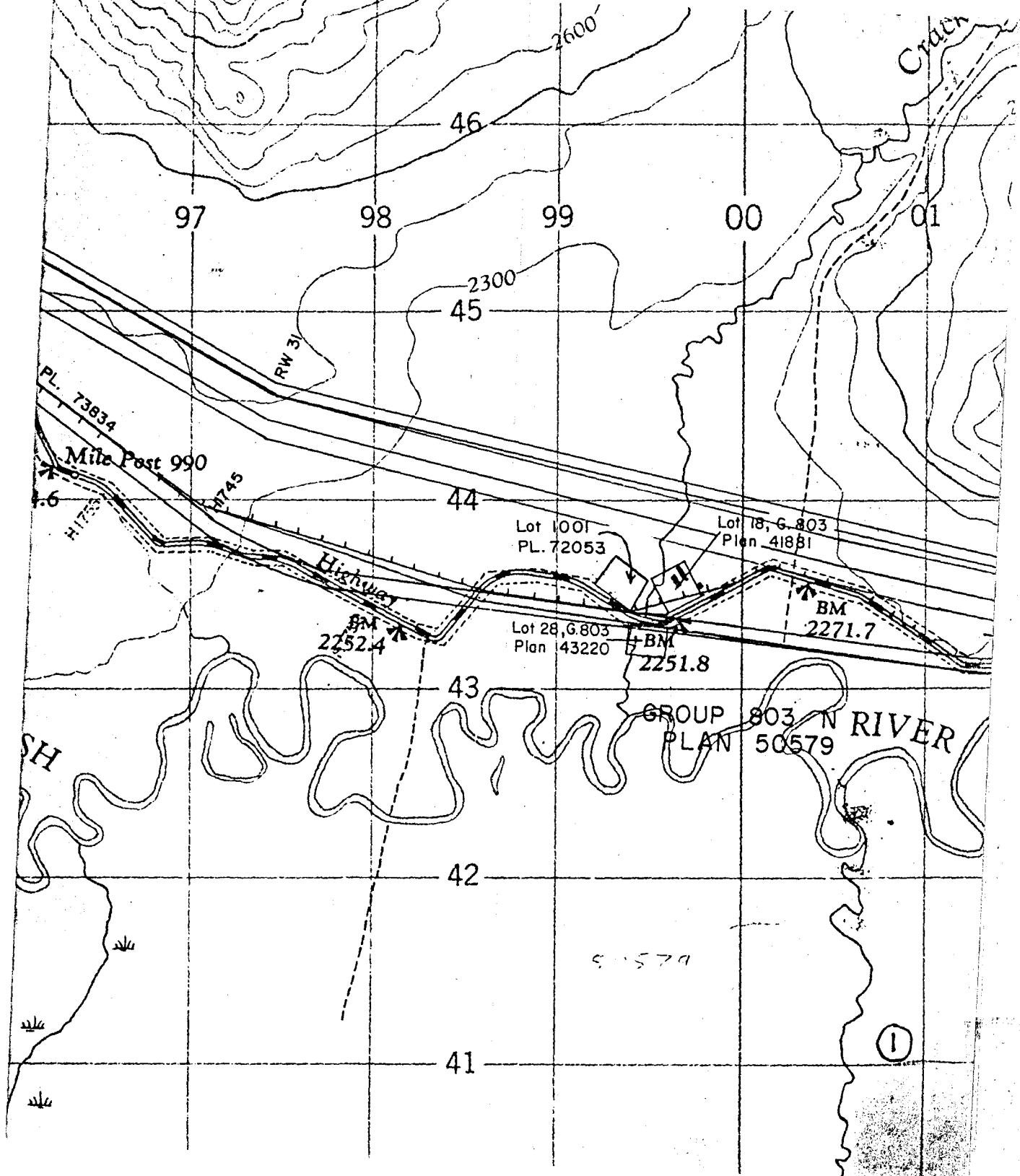
LO

47

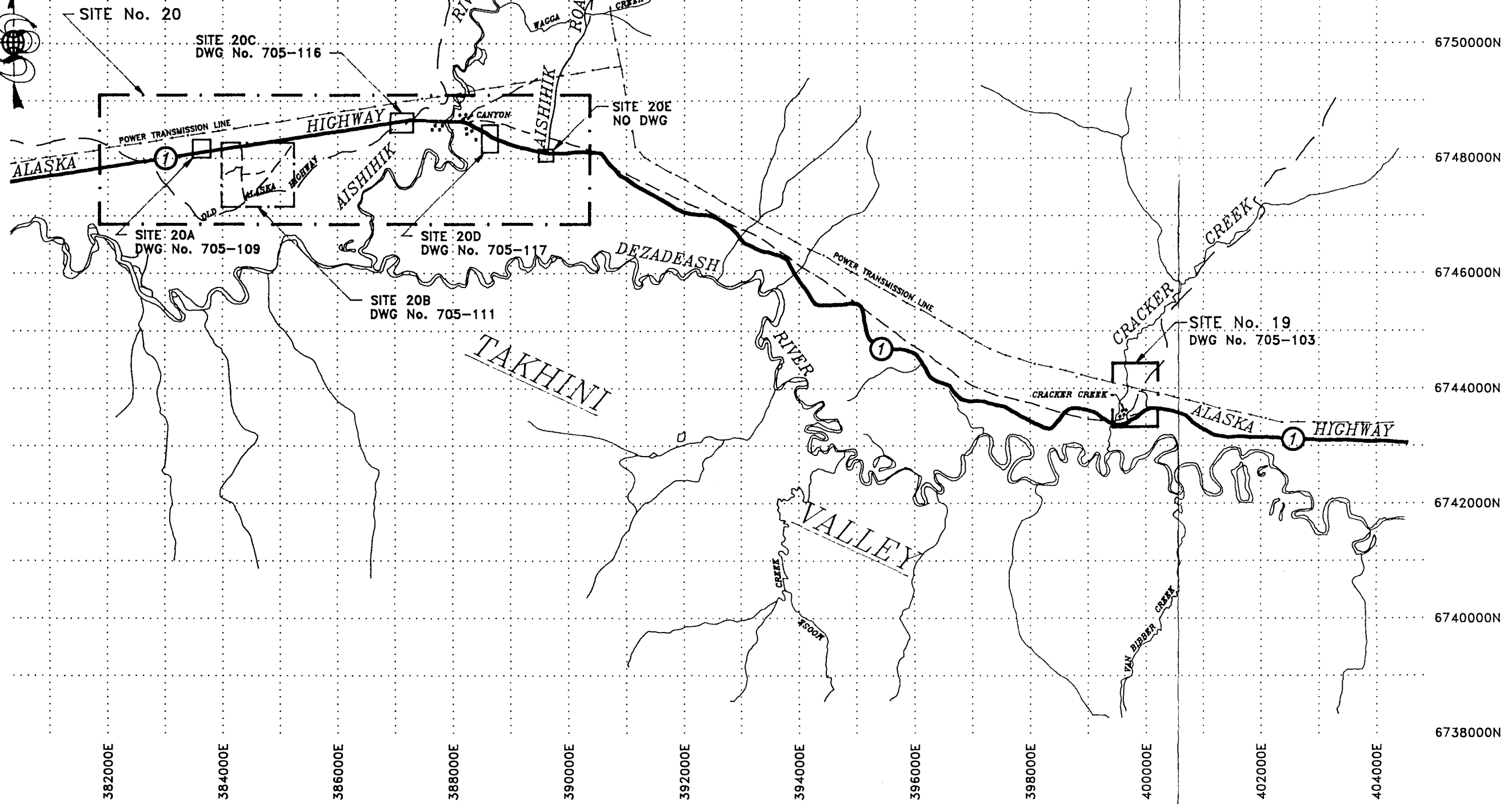
D

2100





APPENDIX No. 2
Site Drawings
Complete Set

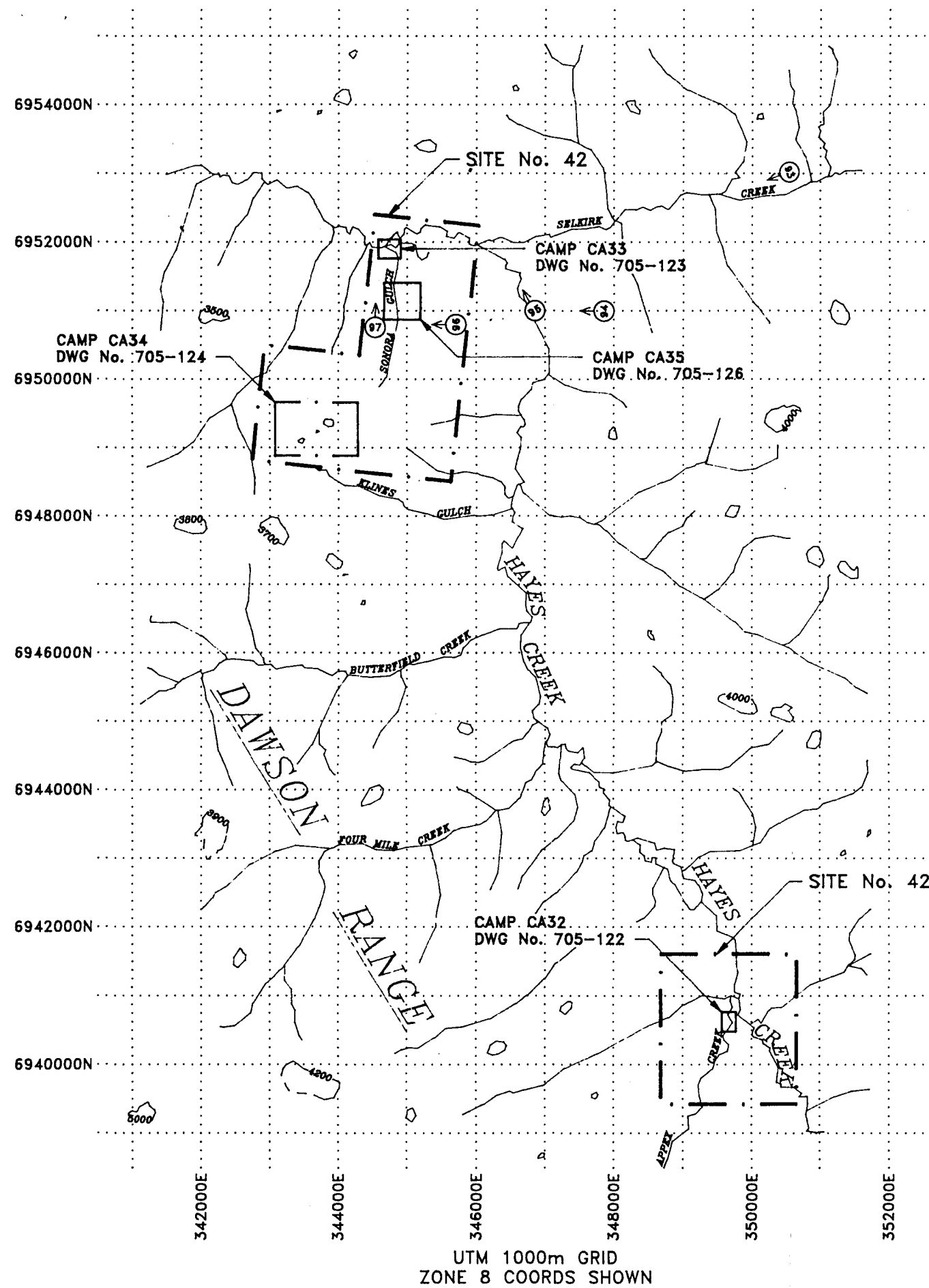


UTM 1000m GRID
ZONE 8 COORDS SHOWN

NOTES:
SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: AREA PLAN SITES 19 AND 20 CANYON AND CRACKER CREEK		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.1: 705-101
CHECKED BY: RDD	SCALE: 1:75000	CONTRACT No.1: 96-6129



GENERAL NOTES

1. GRID COORDINATES FOR SITE 42 ARE UNCORRECTED 15m IN AVERAGE OBTAINED WITH GEOEXPLORER II
2. FOR PHOTOGRAPHS SEE APPENDIX No. 3,
3. FOR SAMPLE LIST SEE TABLE 1, PAGE 56. OF MAIN REPORT

LEGEND

99 — SAMPLE NUMBER
 ● — SAMPLE LOCATION

↑ — PHOTOGRAPH DIRECTION
 99 — PHOTOGRAPH NUMBER
 ○ — PHOTOGRAPH LOCATION

MDA
ENVIRONMENTAL
 MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 N3R 7C3
 FAX: (519) 758-8398
 PHONE: (519) 758-1997

DWG TITLE: AREA PLAN — SITE 42 SELKIRK AND HAYES CREEKS CAMPS CA32, CA33, CA34, CA35		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY — YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-102
CHECKED BY: RDD	SCALE: 1:75000	CONTRACT No.: 96-6129

6343800N

6343600N

6343400N

399400E

399600E

399800E

400000E

400200E

400400E



EXISTING OVER HEAD ELECTRIC POWER LINE

EXISTING DIRT ROAD

SITE 19H - NO DWG
2m x 4m BURY SITE
RECENT - DOMESTIC

EXISTING DIRT ROAD

SITE 19G
NO DWG

SITE 19F
DWG 705-108

SITE 19D
DWG 705-106

SITE 19E
DWG 705-107

SITE 19I
NO DWG

SITE 19C
DWG 705-105

SITE 19B
DWG 705-104

OLD ALASKA HIGHWAY (ABANDONED)

PRIVATE DRIVEWAY

CRACKER CREEK

EX. MULTI-PLATE
STEEL CULVERT

SITE 19A
NO DWG

2m x 2m BURY SITE

ALASKA HIGHWAY

UTM 100m GRID
ZONE 8 COORDS SHOWN

NOTE:

SEE DWG 705-102 FOR
GENERAL NOTES



MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: **SITE PLAN - SITE No. 19**
CRACKER CREEK
SITES 19A TO 19I

CLIENT: **INDIAN AND NORTHERN AFFAIRS CANADA**
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM

DRAWN BY: **REB**

DATE: **DEC, 1996**

DWG No.: **705-103**

CHECKED BY: **RDD**

SCALE: **1:5000**

CONTRACT No.: **96-6129**

cad1 - dwg\705\705-103.dwg



399810E

399800E

399790E

399780E

399770E

6343520N

6343510N

6343500N

6343490N

6343480N

N 6343480
E 399810

N 6343505
E 399770

FIELD REFERENCE LINE

ISOLATED
TARGET
(BURIED)

MINOR
SURFACE
DEBRIS

ISOLATED
TARGET
(BURIED)

UTM 5m GRID
ZONE 8 COORDS SHOWN

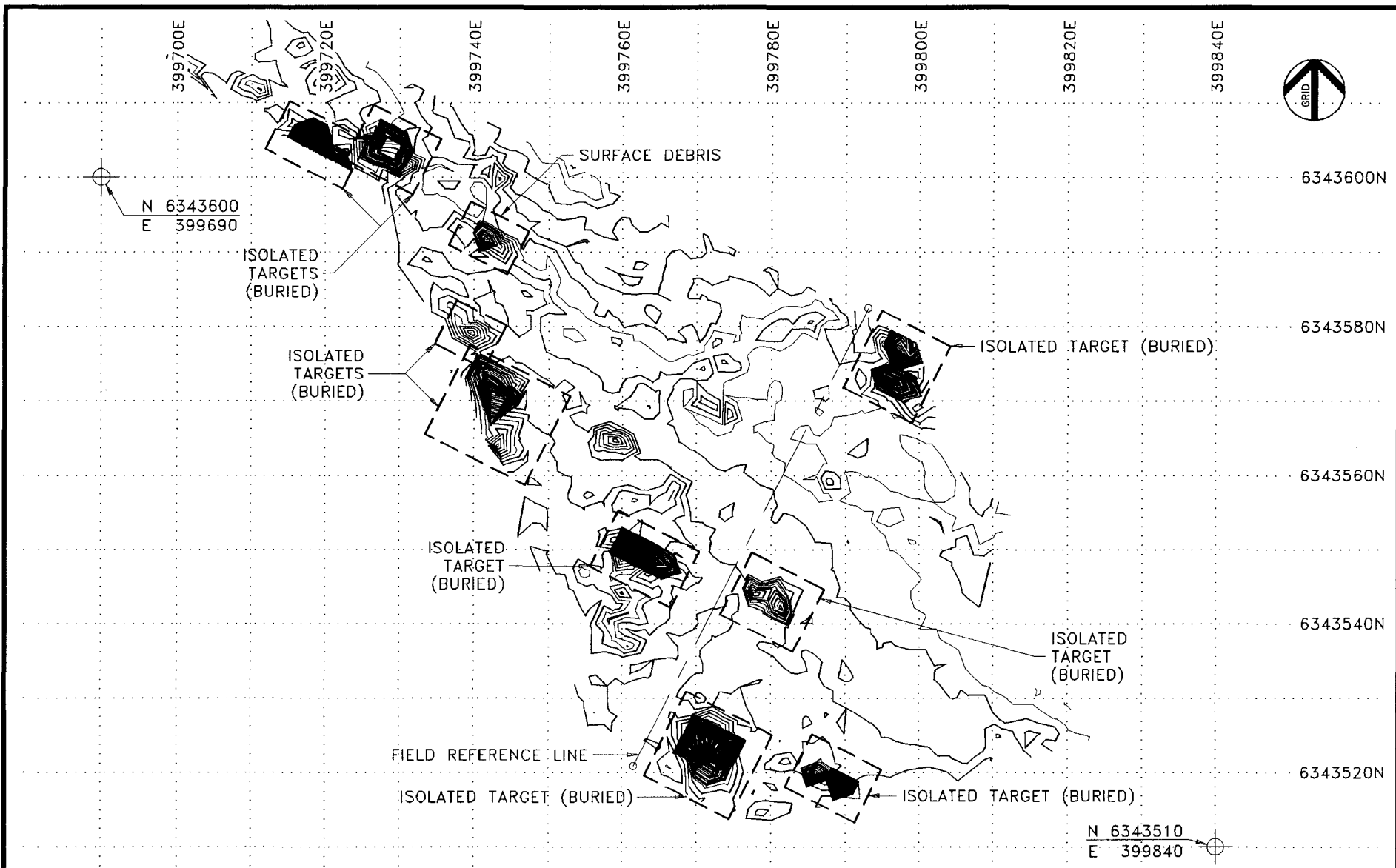
NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF
METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

MDA ENVIRONMENTAL
 MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 N3R 7C3
 FAX: (519) 758-8399
 PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 19B		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-104
CHECKED BY: RDD	SCALE: 1:500	CONTRACT No.: 96-6129

c:\at1 - dwg\705\705-104.dwg



UTM 10m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNDAS STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 19C		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-105
CHECKED BY: RDD	SCALE: 1:750	CONTRACT No.: 96-6129

cont - dwg\705\705-105.dwg



N 6343620
E 399810

6343620N

6343610N

6343600N

6343590N

N 6343600
E 399790

399790E

399800E

399810E

399820E

FIELD REFERENCE LINE

ISOLATED
TARGET
(BURIED)

UTM 5m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF
METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES



ENVIRONMENTAL
 MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 N5R 7C3
 FAX: (519) 758-8399
 PHONE: (519) 758-1997

DWG TITLE:

EM CONDUCTIVITY CONTOURS
SITE 19D

CLIENT:

INDIAN AND NORTHERN AFFAIRS CANADA
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM

DRAWN BY:

REB

DATE:

DEC, 1996

DWG No.:

705-106

CHECKED BY:

RDD

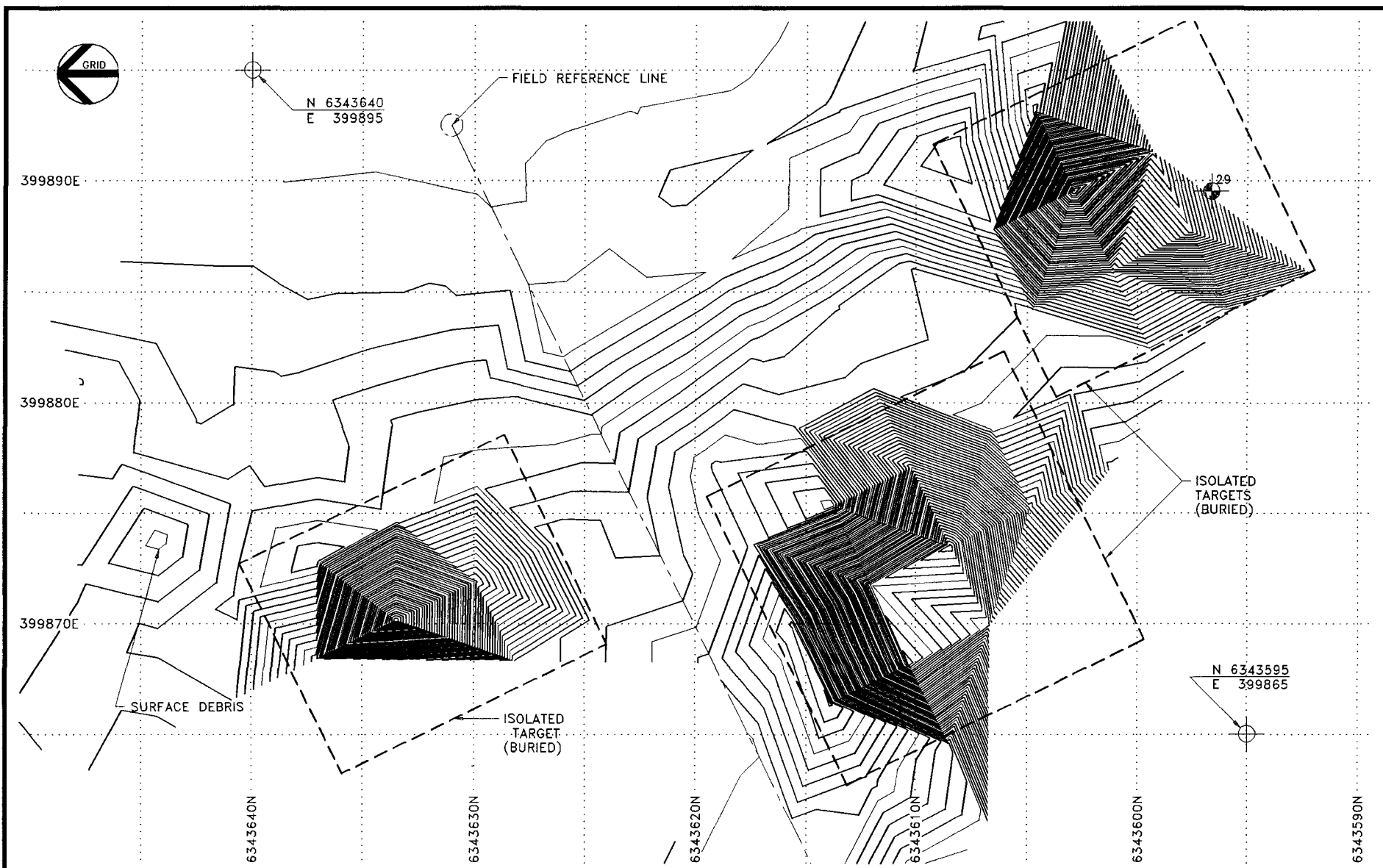
SCALE:

1:200

CONTRACT No.:

96-6129

cad1 - dwg 705-106.dwg



UTM 5m GRID
ZONE 8 COORDS SHOWN

- NOTE:**
- OVERLAY = EM INPHASE CONTOURS (CONFIRMATION OF METAL TARGETS)
 - SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL

MDA ENVIRONMENTAL LIMITED
241 DUNDON STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWC TITLE:		
EM CONDUCTIVITY CONTOURS SITE 19E		
CLIENT:		
INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY:	DATE:	DWG No.:
REB	DEC, 1996	705-107
CHECKED BY:	SCALE:	CONTRACT No.:
RDD	1:250	96-6129

cont1 - dwgs\705\705-107.dwg



ISOLATED TARGET (BURIED)

FIELD REFERENCE LINE

N 6343730
E 399850

6343730N

SURFACE DEBRIS

6343720N

6343710N

ISOLATED TARGETS (BURIED)

SURFACE PONDING (WATER)

6343700N

N 6343700
E 399895

399850E

399860E

399870E

399880E

399890E

399900E

UTM 5m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS (CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES



MDA ENVIRONMENTAL LIMITED
241 DUNDAS STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE:

EM CONDUCTIVITY CONTOURS
SITE 19F

CLIENT:

INDIAN AND NORTHERN AFFAIRS CANADA
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM

DRAWN BY:

REB

DATE:

DEC, 1996

DWG No.:

705-108

CHECKED BY:

RDD

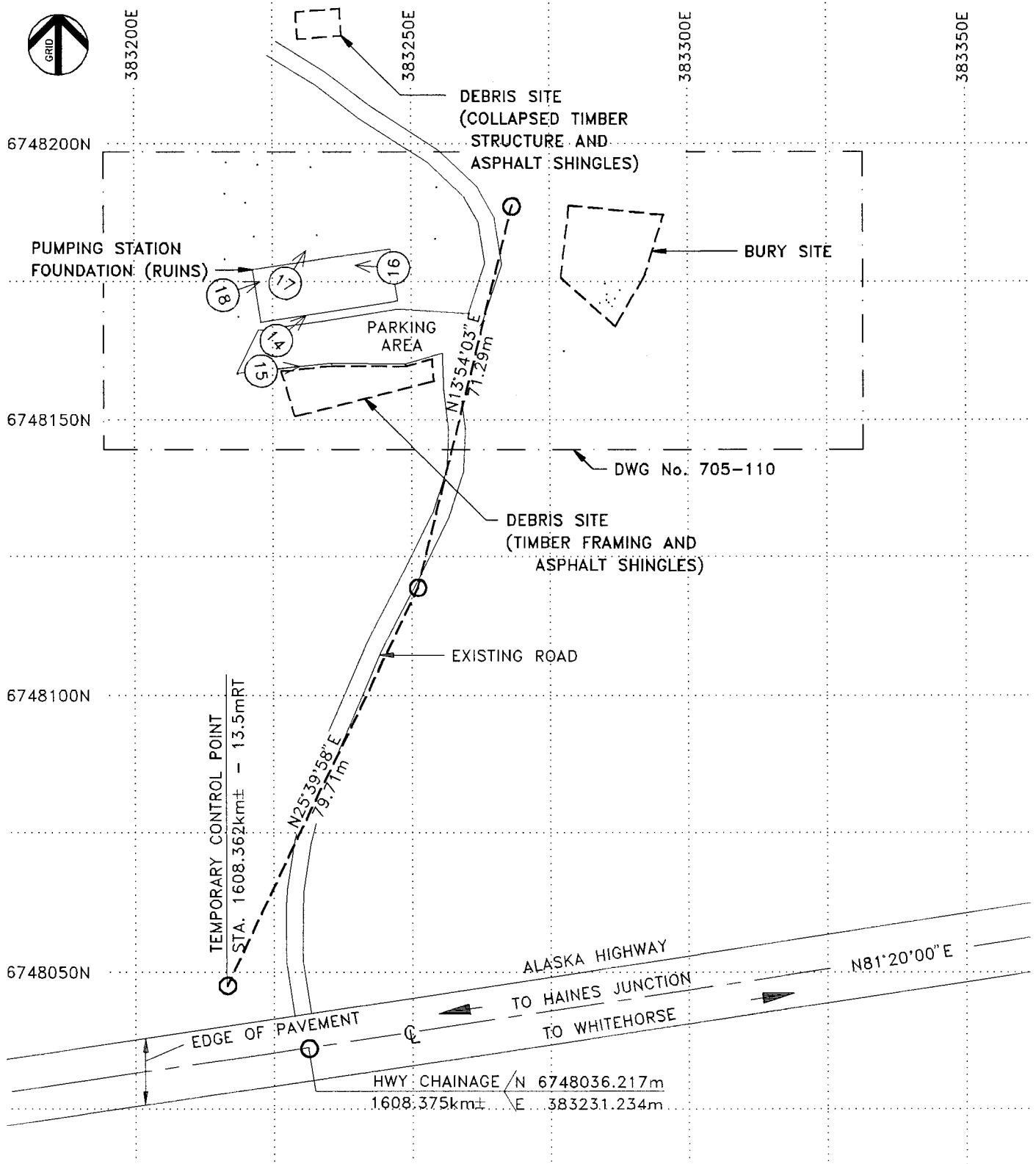
SCALE:

1:250

CONTRACT No.:

96-6129

cd1 - dwg\705\05-108.dwg



DWG No. 705-110

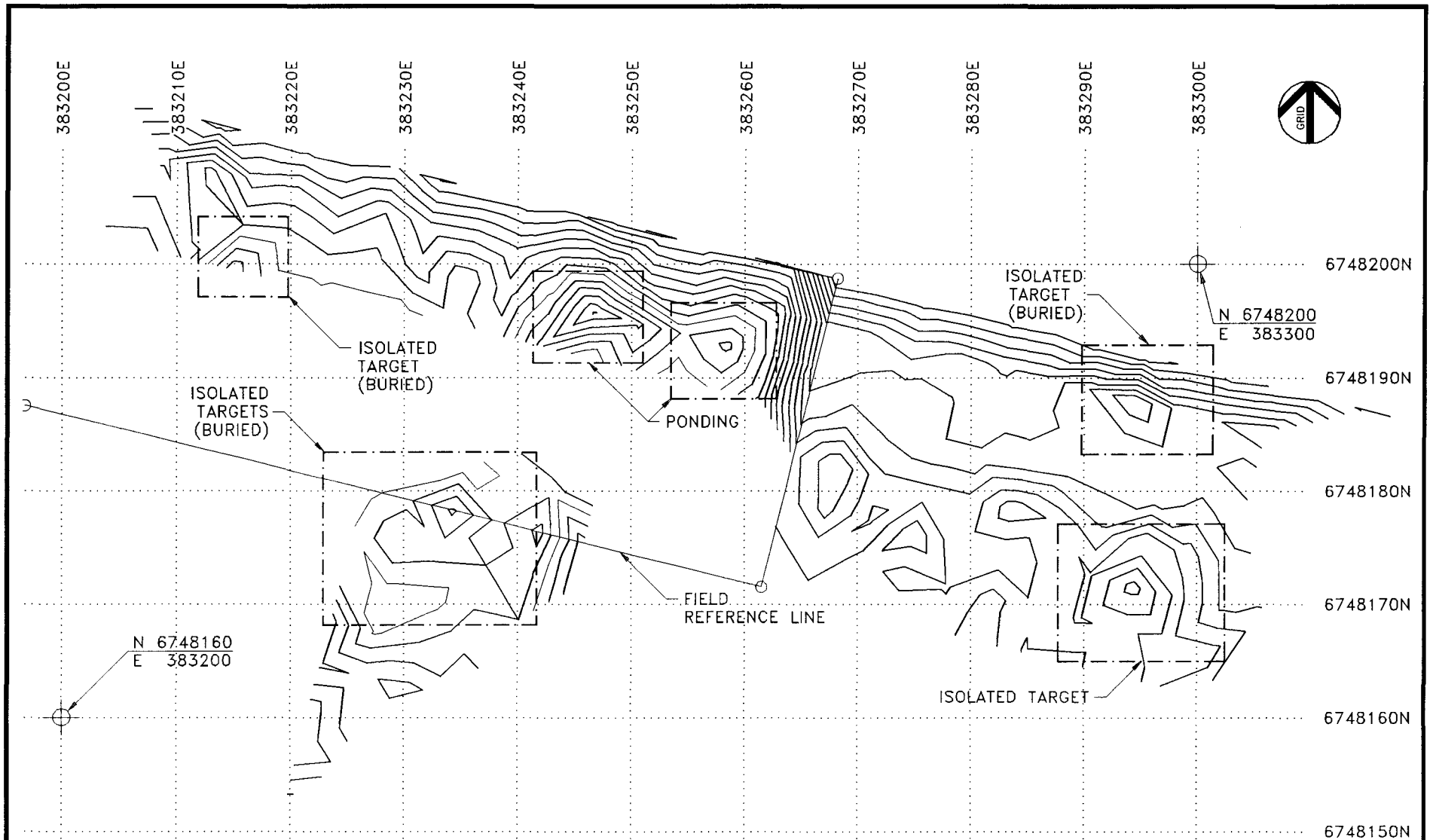
UTM 50m GRID
ZONE 8 COORDS SHOWN

NOTE:
SEE DWG 705-102 FOR
GENERAL NOTES

MDA ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNDON STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: SITE PLAN - SITE 20A ABANDONED CANOL PUMPING STATION		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-109
CHECKED BY: RDD	SCALE: 1:1000	CONTRACT No.: 96-6129

cad1 - dwg705705-109.dwg



UTM 10m GRID
ZONE 8 COORDS SHOWN

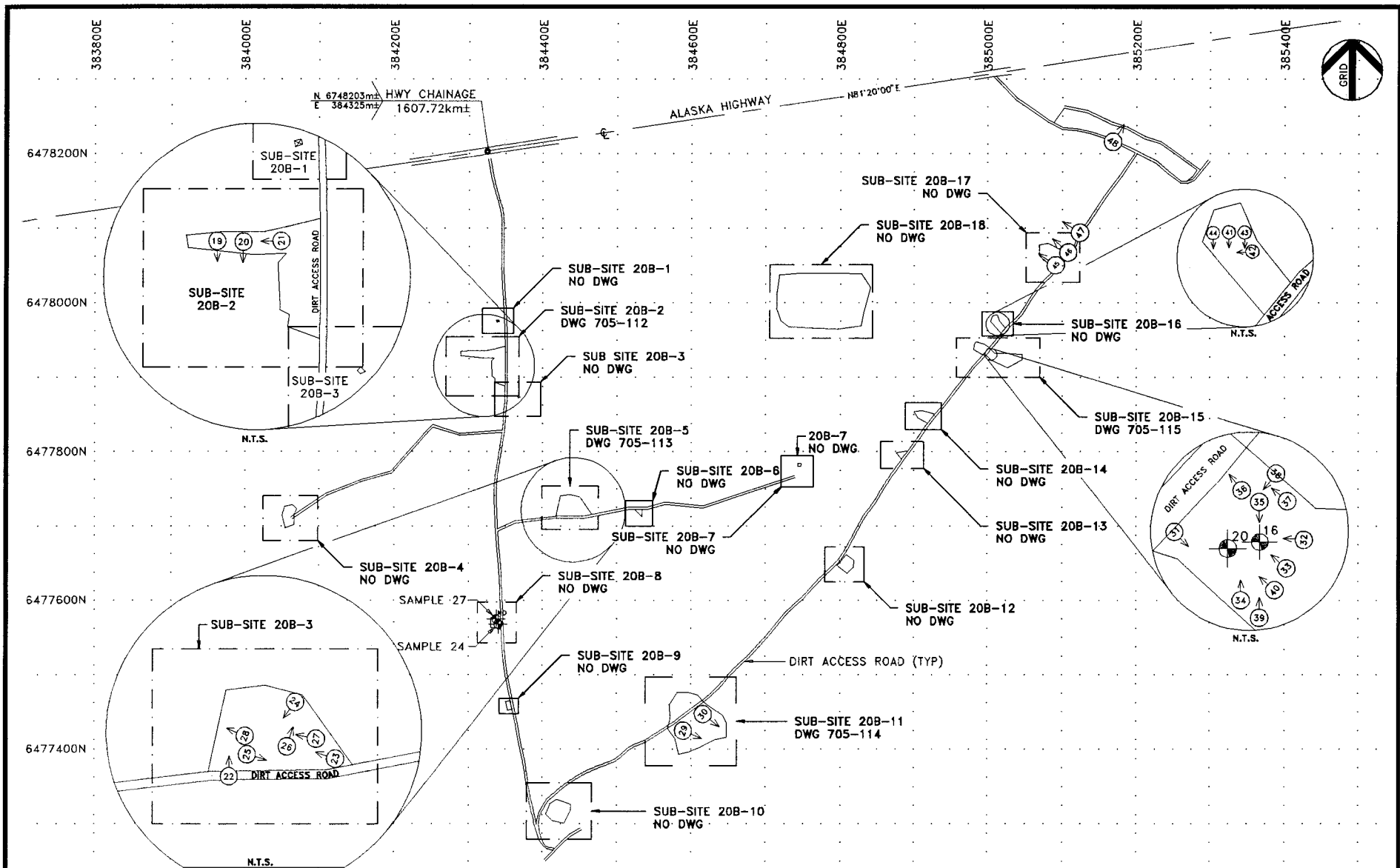
- NOTE:**
1. OVERLAY = EM INPHASE CONTOURS (CONFIRMATION OF METAL TARGETS)
 2. SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL

MDA ENVIRONMENTAL LIMITED
241 DUNDON STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8398
PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 20A		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-110
CHECKED BY: RDD	SCALE: 1:250	CONTRACT No.: 96-6129

c:\d1 - dwgs\705\05-110.dwg



UTM 100m GRID
ZONE 8 COORDS SHOWN

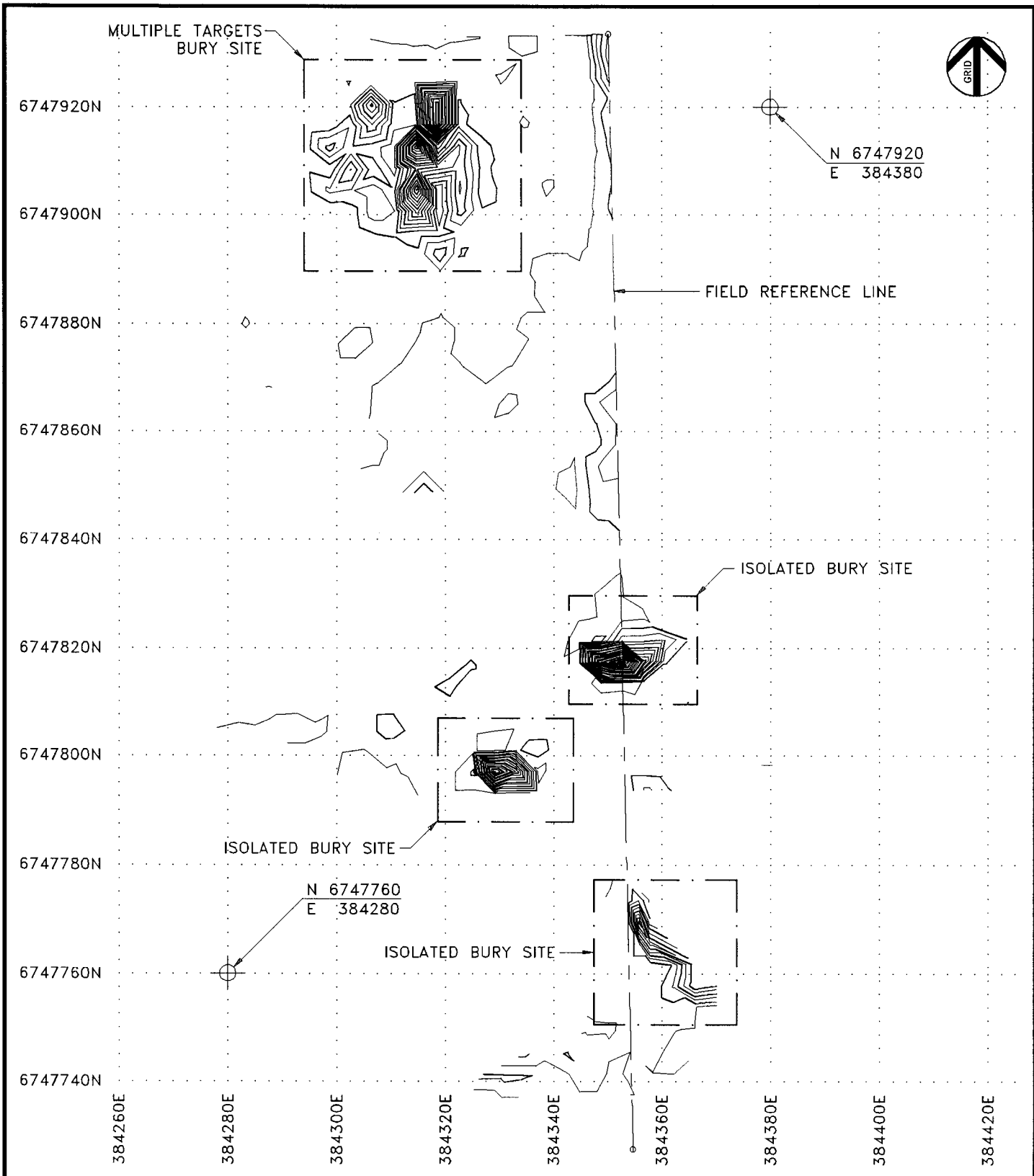
NOTE:
SEE DWG 705-102 FOR
GENERAL NOTES



MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1597

DWG TITLE: SITE PLAN - SITE 20B CANYON - WEST		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-111
CHECKED BY: RDD	SCALE: 1:7500	CONTRACT No.: 96-6129

cadd - d:\gsa\05\photo\705-111.dwg



UTM 20m GRID
ZONE 8 COORDS SHOWN

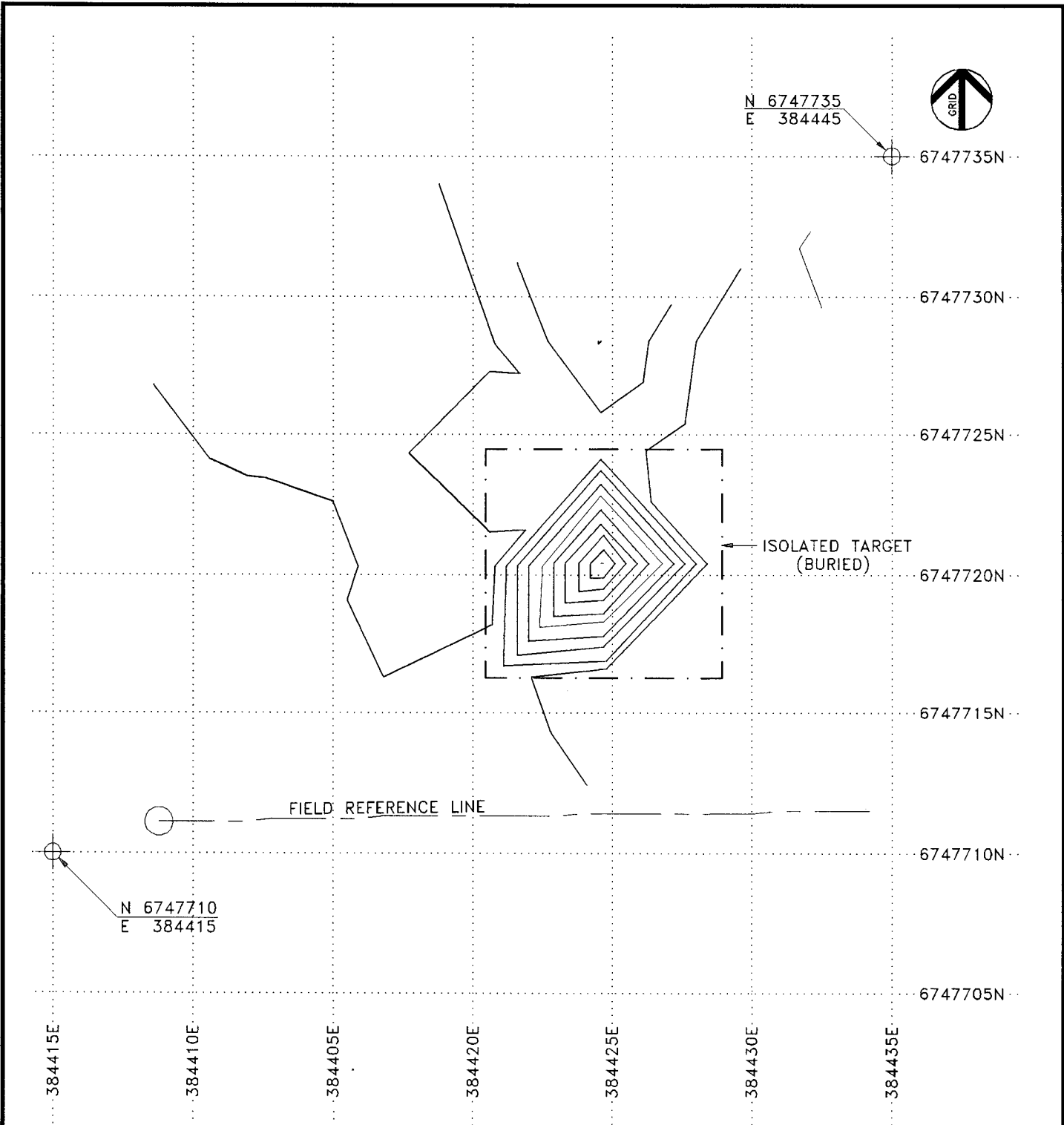
NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNDAS STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 20B-2		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-112
CHECKED BY: RDD	SCALE: 1:1000	CONTRACT No.: 96-6129

cadd - d:\p3\705\705-112.dwg



UTM 5m GRID
ZONE 8 COORDS SHOWN

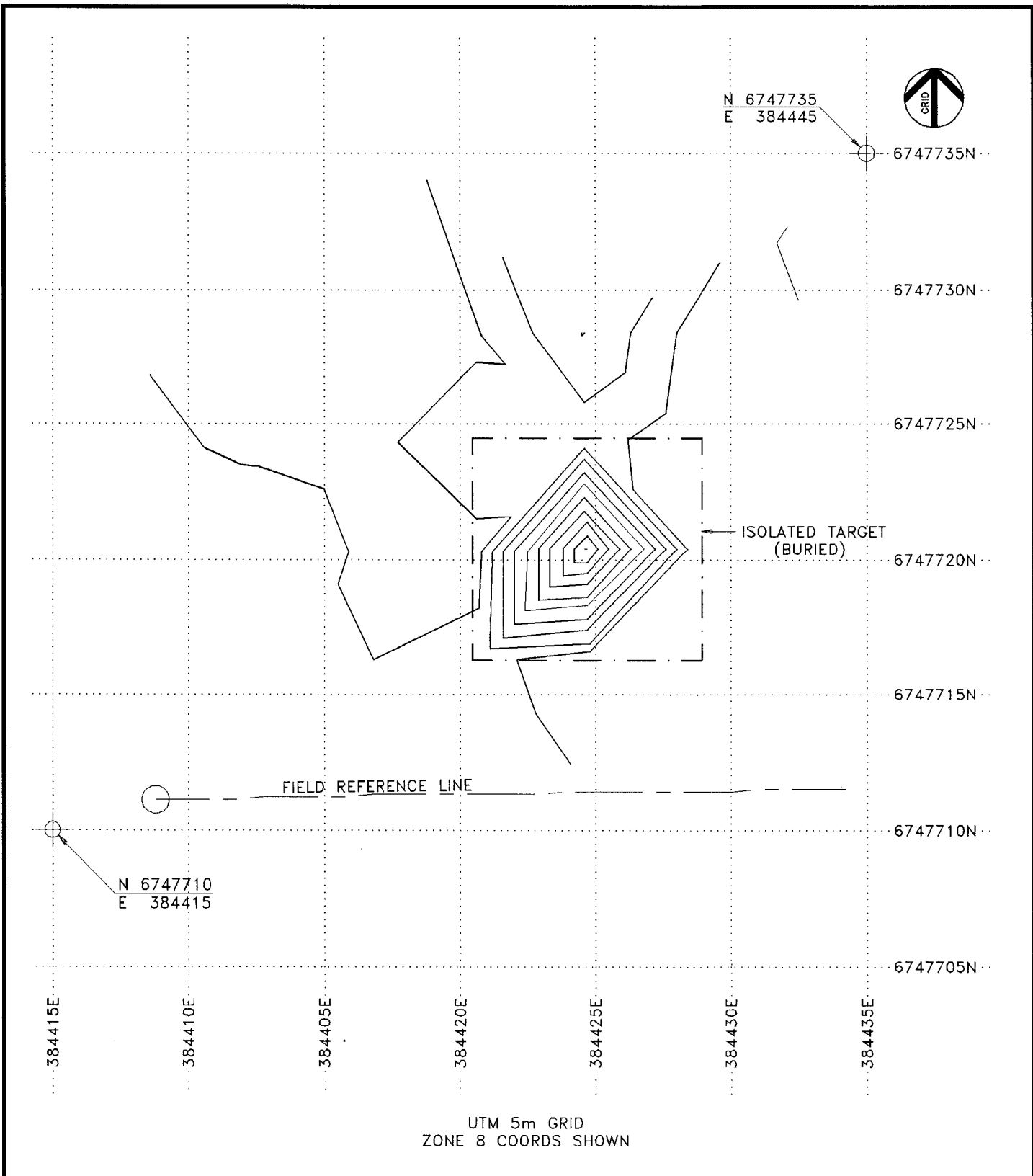
NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N9R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 20B-5		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-113
CHECKED BY: RDD	SCALE: 1:200	CONTRACT No.: 96-6129

cad1 - dwg3705-113.dwg



UTM 5m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES



MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N6R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 20B-5		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-113
CHECKED BY: RDD	SCALE: 1:200	CONTRACT No.: 96-6129

cod1 - dwg3705705-113.dwg



N 6747480
E 384660

6747480N

FIELD REFERENCE LINE

ISOLATED TARGET (BURIED)

6747460N

ISOLATED TARGETS (BURIED)

PONDING

6747440N

SURFACE DEBRIS (METAL)

N 6747420
E 384600

6747420N

384600E

384620E

384640E

384660E

UTM 10m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS (CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES



MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 N3R 7C3
 FAX: (519) 758-8399
 PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS
 SITE 20B-11

CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA
 ARCTIC ENVIRONMENTAL STRATEGY - YUKON
 ACTION ON WASTE PROGRAM

DRAWN BY:	REB	DATE:	DEC, 1996	DWG No.:	705-114
CHECKED BY:	RDD	SCALE:	1:500	CONTRACT No.:	96-6129

cad1 - dwg3705705-114.dwg



UTM 5m GRID
ZONE 8 COORDS SHOWN

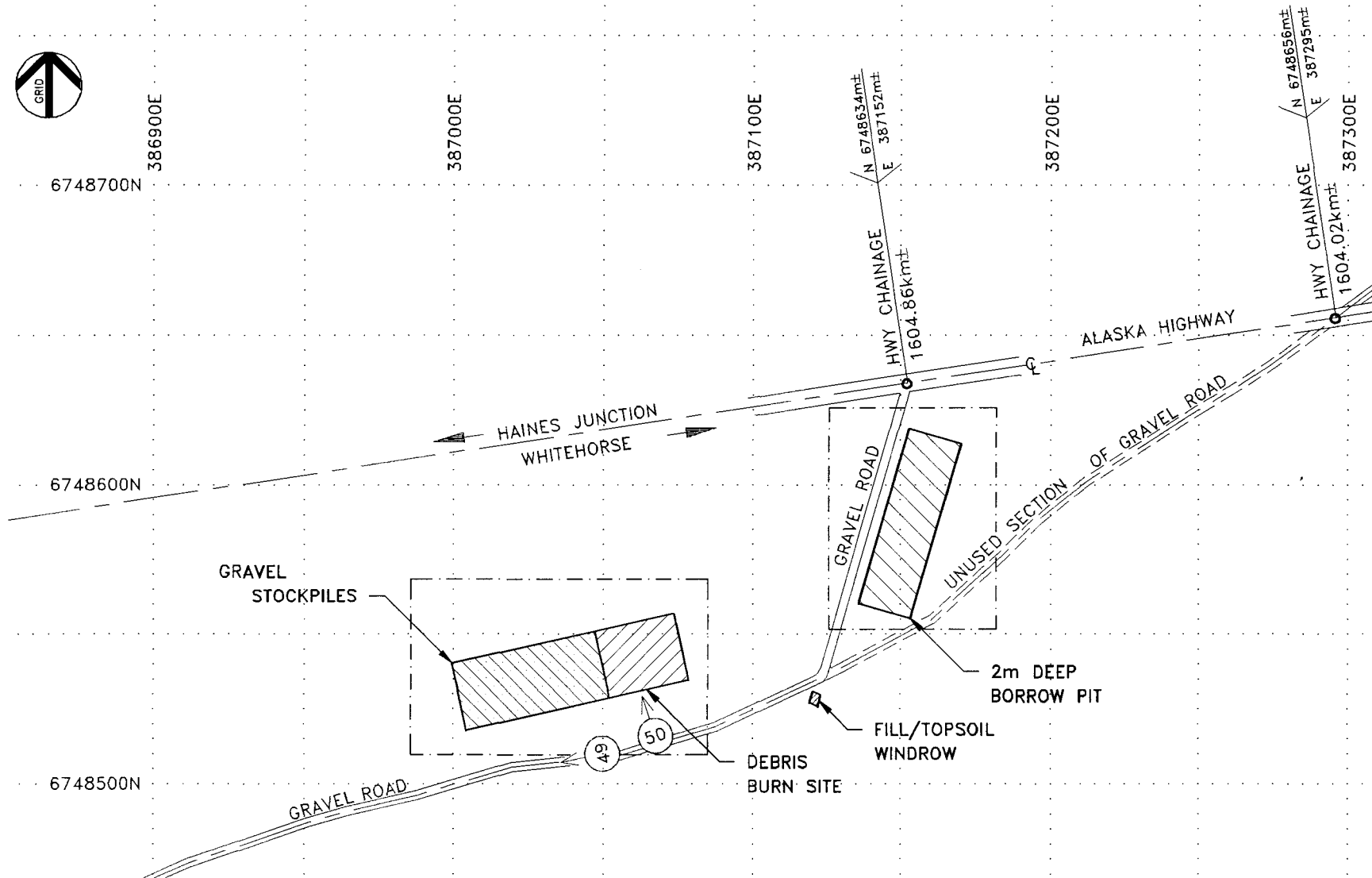
NOTE:

1. OVERLAY = EM INPHASE CONTOURS (CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

MDA
ENVIRONMENTAL
 MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 NER 7C3
 FAX: (519) 758-8399
 PHONE: (519) 758-1997

DWG TITLE: EM CONDUCTIVITY CONTOURS SITE 20B-15		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-115
CHECKED BY: RDD	SCALE: 1:250	CONTRACT No.: 96-6129

ocd1 - dwg705-115.dwg



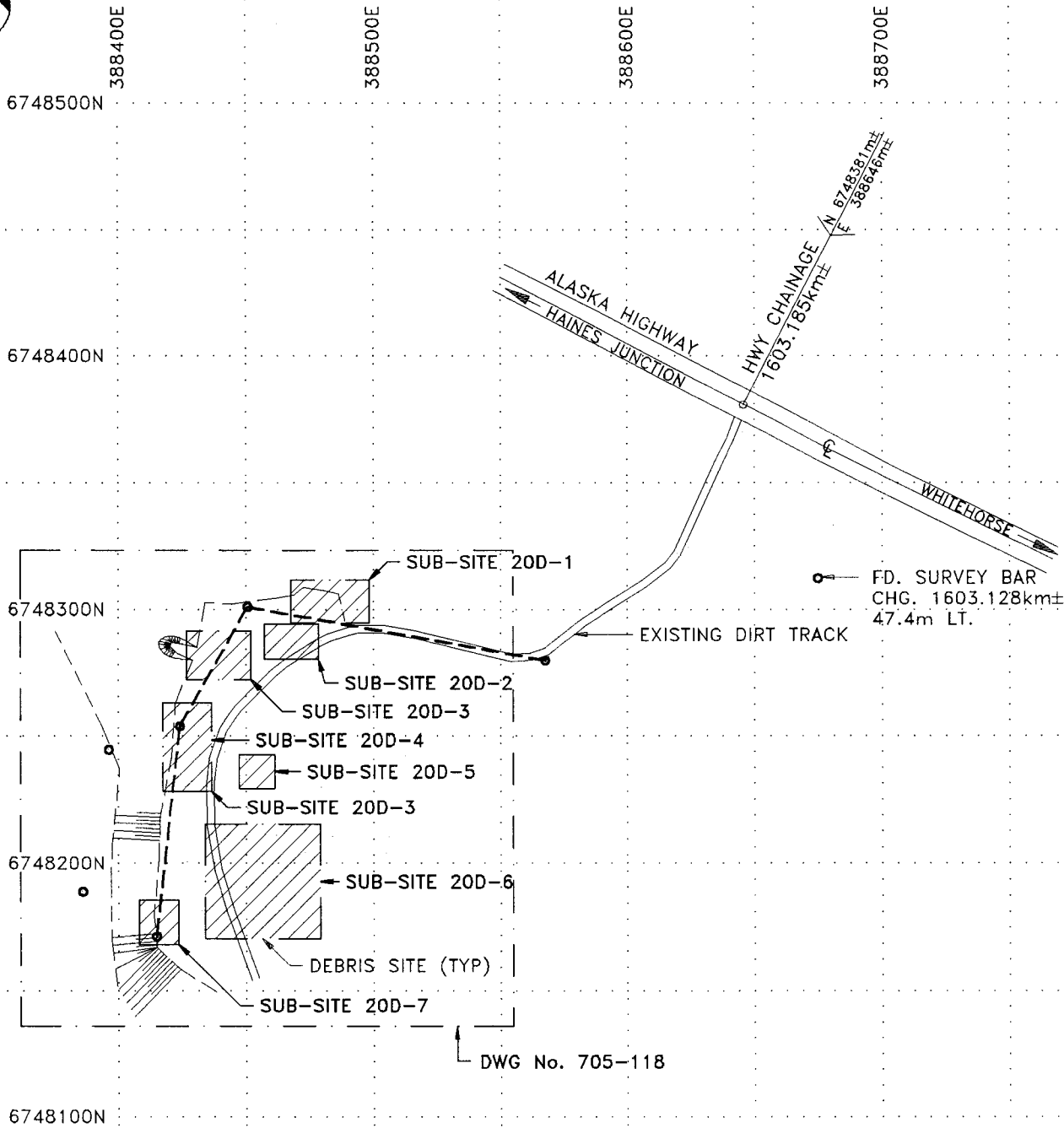
UTM 50m GRID
ZONE 8 COORDS SHOWN

NOTE:

SEE DWG 705-102 FOR
GENERAL NOTES

MDA
ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNDAS STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: SITE PLAN - SITE 20C		
CANYON ROADSIDE DUMP SITE		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA		
ARCTIC ENVIRONMENTAL STRATEGY - YUKON		
ACTION ON WASTE PROGRAM		
DRAWN BY:	DATE:	DWG No.:
REB	DEC, 1996	705-116
CHECKED BY:	SCALE:	CONTRACT No.:
RDD	1:2000	96-6129



DWG No. 705-118

UTM 50m GRID
ZONE 8 COORDS SHOWN

NOTE:

SEE DWG 705-102 FOR
GENERAL NOTES



MDA ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N3R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE:

**SITE PLAN - SITE 20D
ABANDONED MILITARY DUMP**

CLIENT:

**INDIAN AND NORTHERN AFFAIRS CANADA
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM**

DRAWN BY:

REB

DATE:

DEC, 1996

DWG No.:

705-117

CHECKED BY:

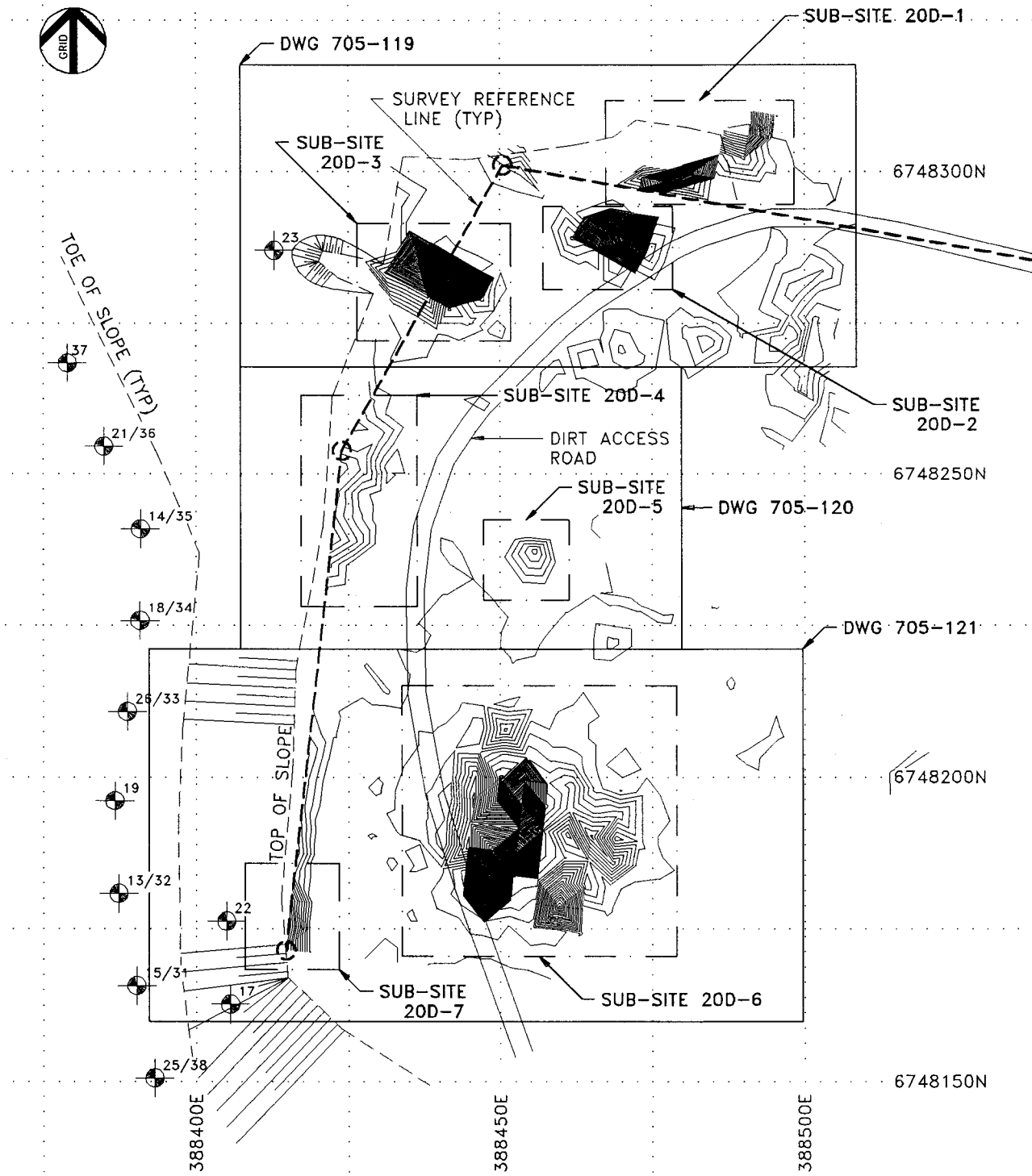
RDD

SCALE:

1:2500

CONTRACT No.:

96-6129

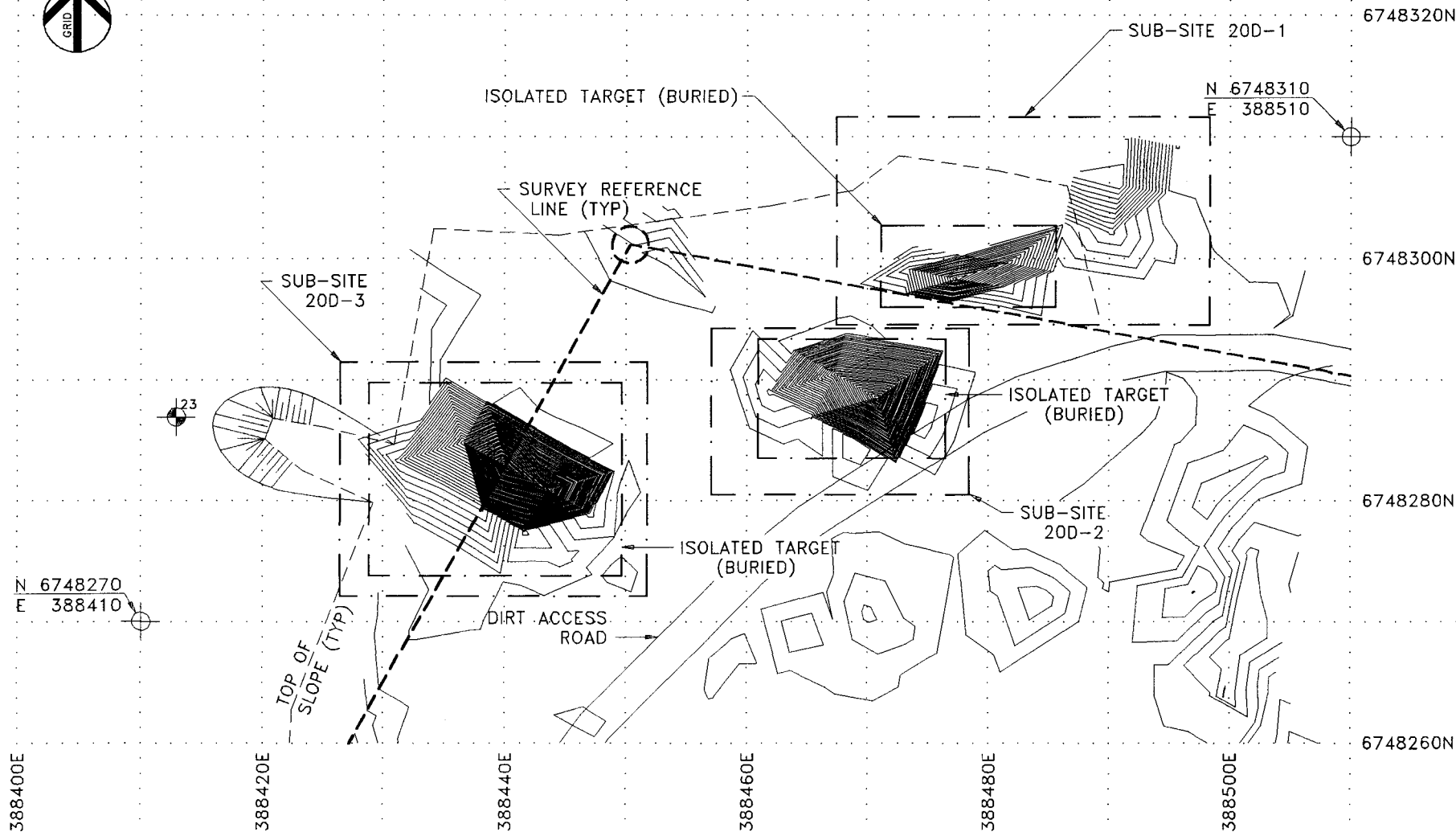


UTM 25m GRID
ZONE 8 COORDS SHOWN

NOTE:
SEE DWG 705-102 FOR
GENERAL NOTES

 MDA ENVIRONMENTAL <small>MDA ENVIRONMENTAL LIMITED 241 DUNDON STREET BRANTFORD ONTARIO N3R 7C3 FAX: (519) 758-8399 PHONE: (519) 758-1997</small>	DWG TITLE: FOUND BURIED DEBRIS SITES SOIL CONDUCTIVITY CONTOURS		
	CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
	DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-118
	CHECKED BY: RDD	SCALE: 1:1000	CONTRACT No.: 96-6129

ced - dwg/705/705-118.dwg



UTM 10m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

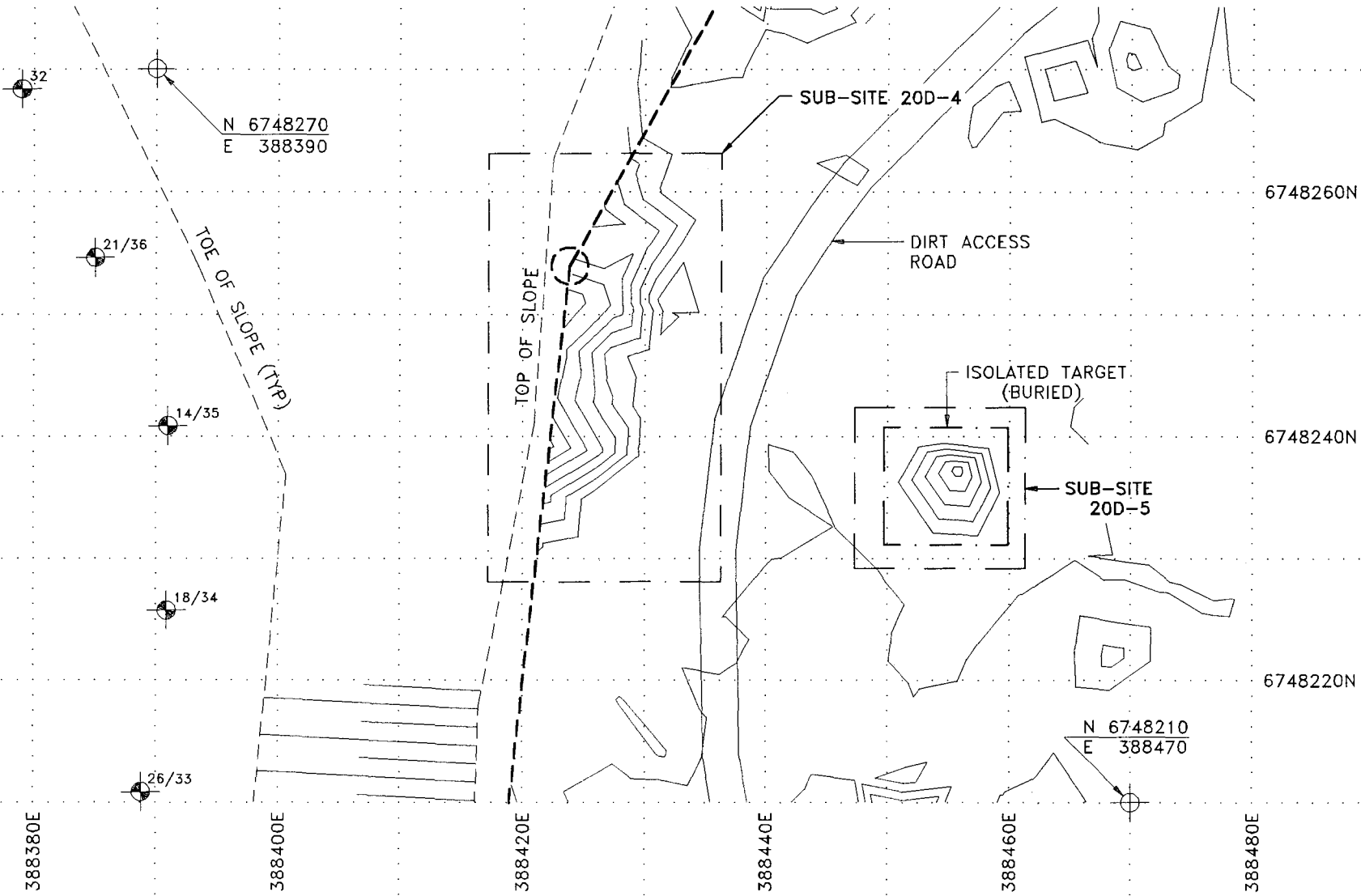


ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNDAS STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8399
PHONE: (519) 758-1597

DWG TITLE: **FOUND BURIED DEBRIS SITE**
SUB-SITES
20D-1, 20D-2 AND 20D-3

CLIENT: **INDIAN AND NORTHERN AFFAIRS CANADA**
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM

DRAWN BY:	REB	DATE:	DEC, 1996	DWG No.:	705-119
CHECKED BY:	RDD	SCALE:	1:500	CONTRACT No.:	96-6129



UTM 10m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF
METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

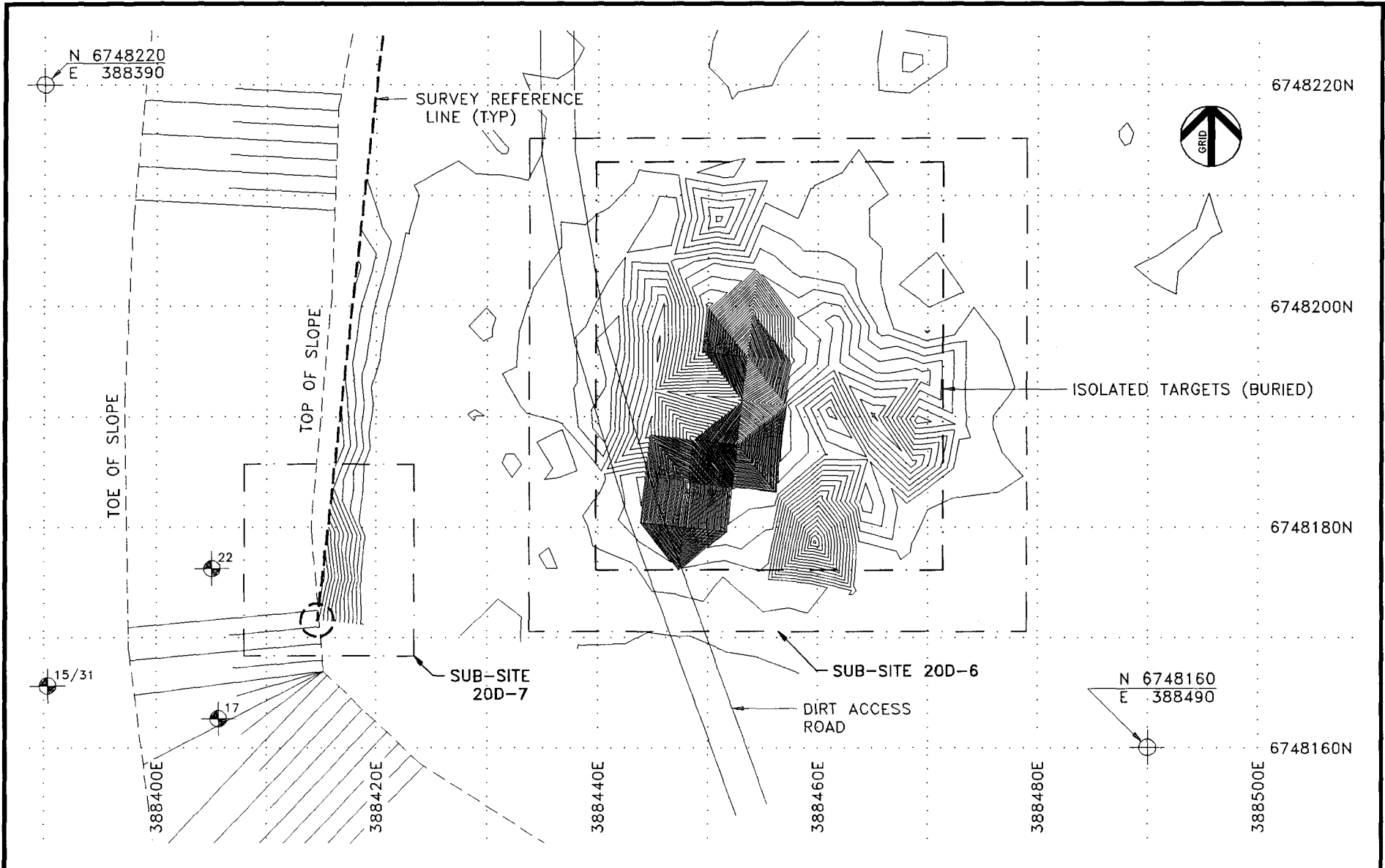


MDA ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNSDON STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: **FOUND BURIED DEBRIS SITE
SUB-SITES
20D-4 AND 20D-5**

CLIENT: **INDIAN AND NORTHERN AFFAIRS CANADA
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM**


DRAWN BY:	REB	DATE:	DEC, 1996	DWG No.:	705-120
CHECKED BY:	RDD	SCALE:	1:500	CONTRACT No.:	96-6129



UTM 10m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. OVERLAY = EM INPHASE CONTOURS
(CONFIRMATION OF METAL TARGETS)
2. SEE DWG 705-102 FOR GENERAL NOTES

 MDA ENVIRONMENTAL <small>MDA ENVIRONMENTAL LIMITED 241 DUNDON STREET BRANTFORD ONTARIO N3R 7C3 FAX: (519) 758-8399 PHONE: (519) 758-1997</small>	DWG TITLE: FOUND BURIED DEBRIS SITE SUB-SITES 20D-6 AND 20D-7		
	CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-121	
CHECKED BY: RDD	SCALE: 1:500	CONTRACT No.: 96-6129	

cad1 - ewgs\705\705-121.dwg



6940280N

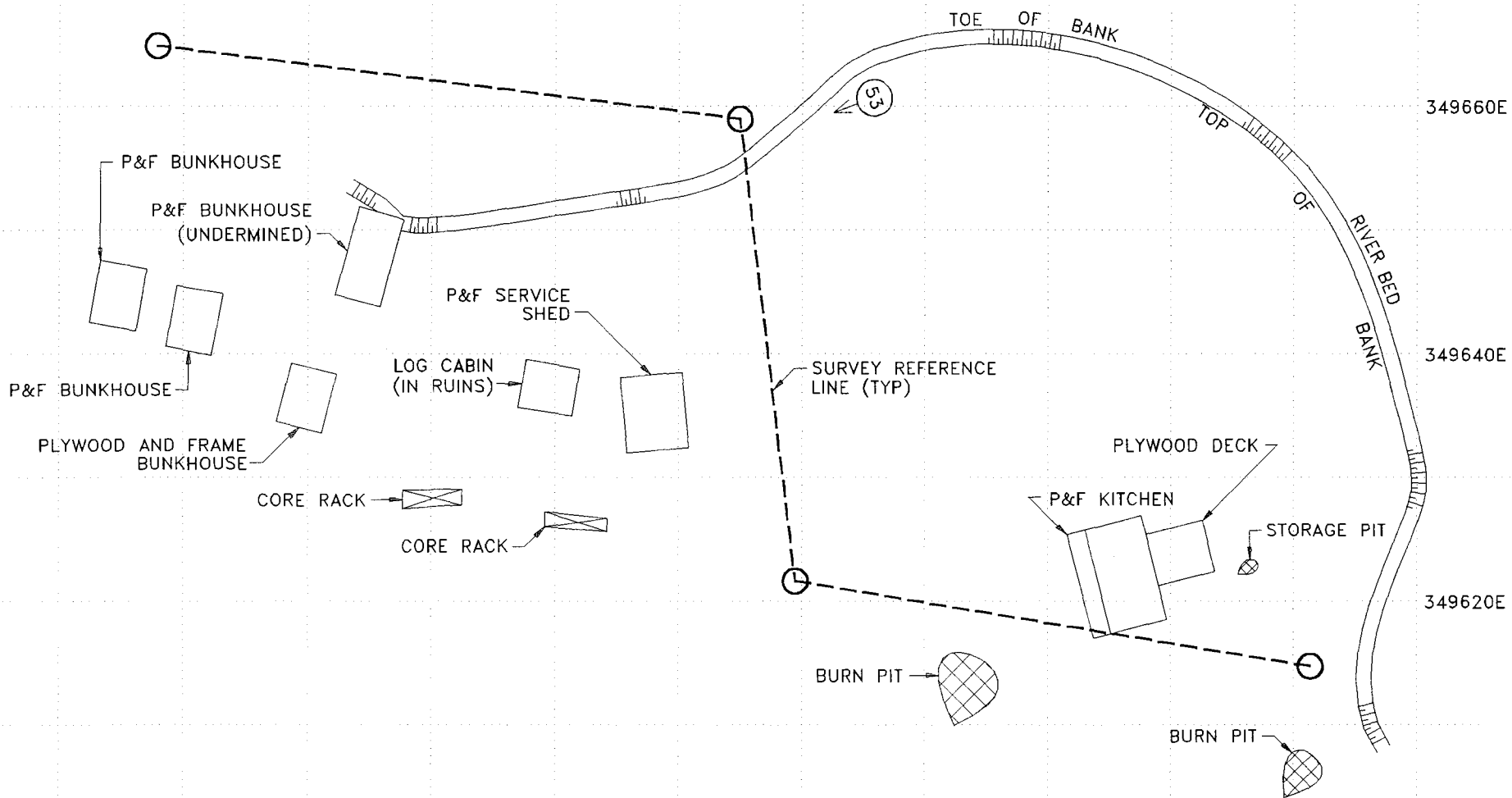
6940260N

6940240N

6940220N

6940200N

6940180N



UTM 10m GRID
ZONE 8 COORDS SHOWN

NOTE:

1. GRID COORDINATES ARE UNCORRECTED
15min AVERAGE OBTAINED WITH
GEOEXPLORER ii
2. SEE DWG 705-102 FOR GENRAL NOTES



ENVIRONMENTAL
 MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 N3R 7G3
 FAX: (519) 758-8399
 PHONE: (519) 758-1887

DWG TITLE:

**SITE PLAN - SITE 42
SUB-SITE CA32**

CLIENT:

**INDIAN AND NORTHERN AFFAIRS CANADA
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM**

DRAWN BY:

REB

DATE:

DEC, 1996

DWG No.:

705-122

CHECKED BY:

RDD

SCALE:

1:500

CONTRACT No.:

96-6129

69511820N

69511800N

69511780N

69511760N

69511740N

69511720N

69511700N

69511680N

652260E

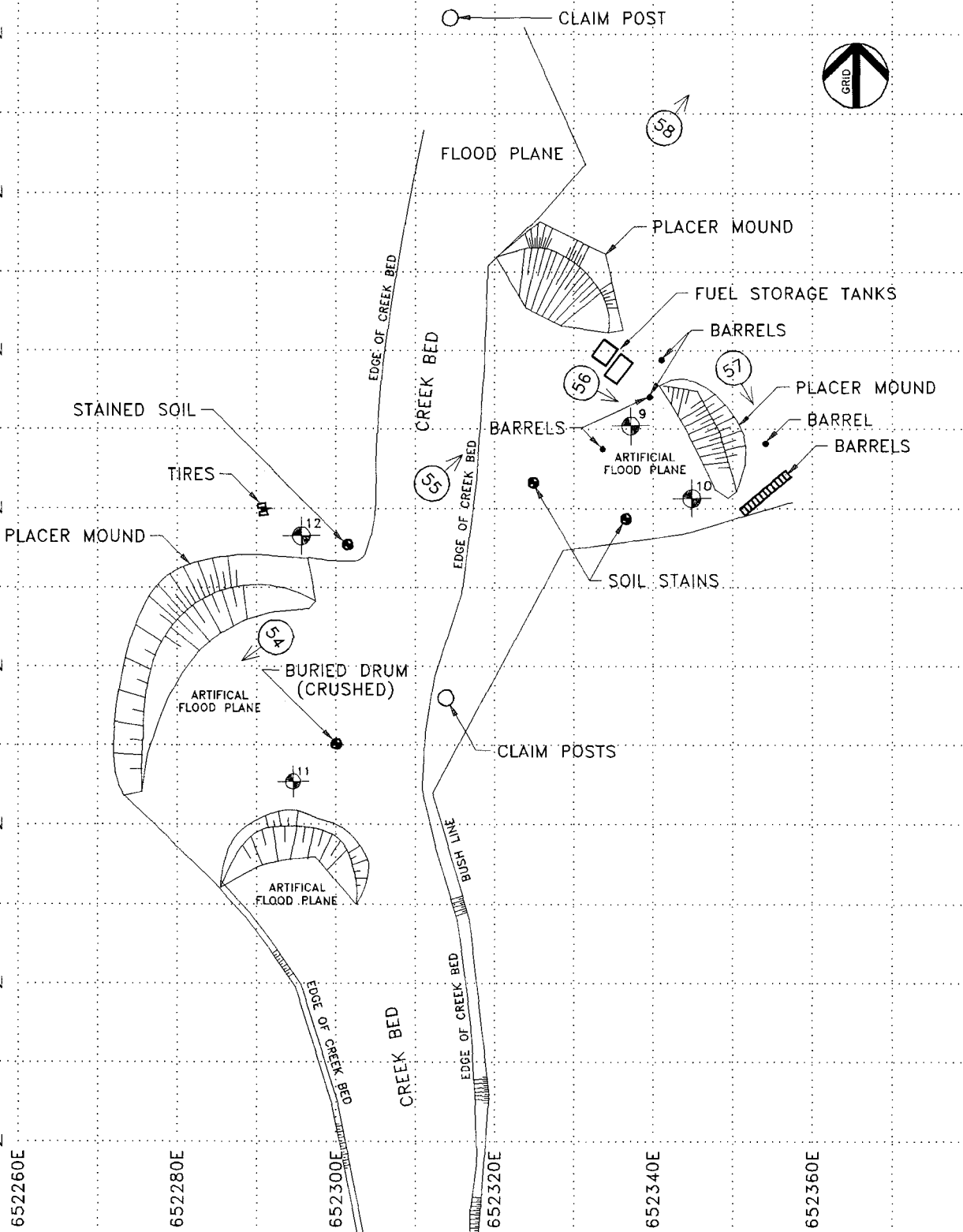
652280E

652300E

652320E

652340E

652360E



UTM 10m GRID
ZONE 7 COORDS SHOWN

MDA
ENVIRONMENTAL
MDA ENVIRONMENTAL LIMITED
241 DUNDON STREET
BRANTFORD
ONTARIO
N5R 7C3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE:

SITE PLAN - SITE 42
SUB-SITE CA33

CLIENT:

INDIAN AND NORTHERN AFFAIRS CANADA
ARCTIC ENVIRONMENTAL STRATEGY - YUKON
ACTION ON WASTE PROGRAM

DRAWN BY:

REB

DATE:

DEC, 1996

DWG No.:

705-123

CHECKED BY:

RDD

SCALE:

1:500

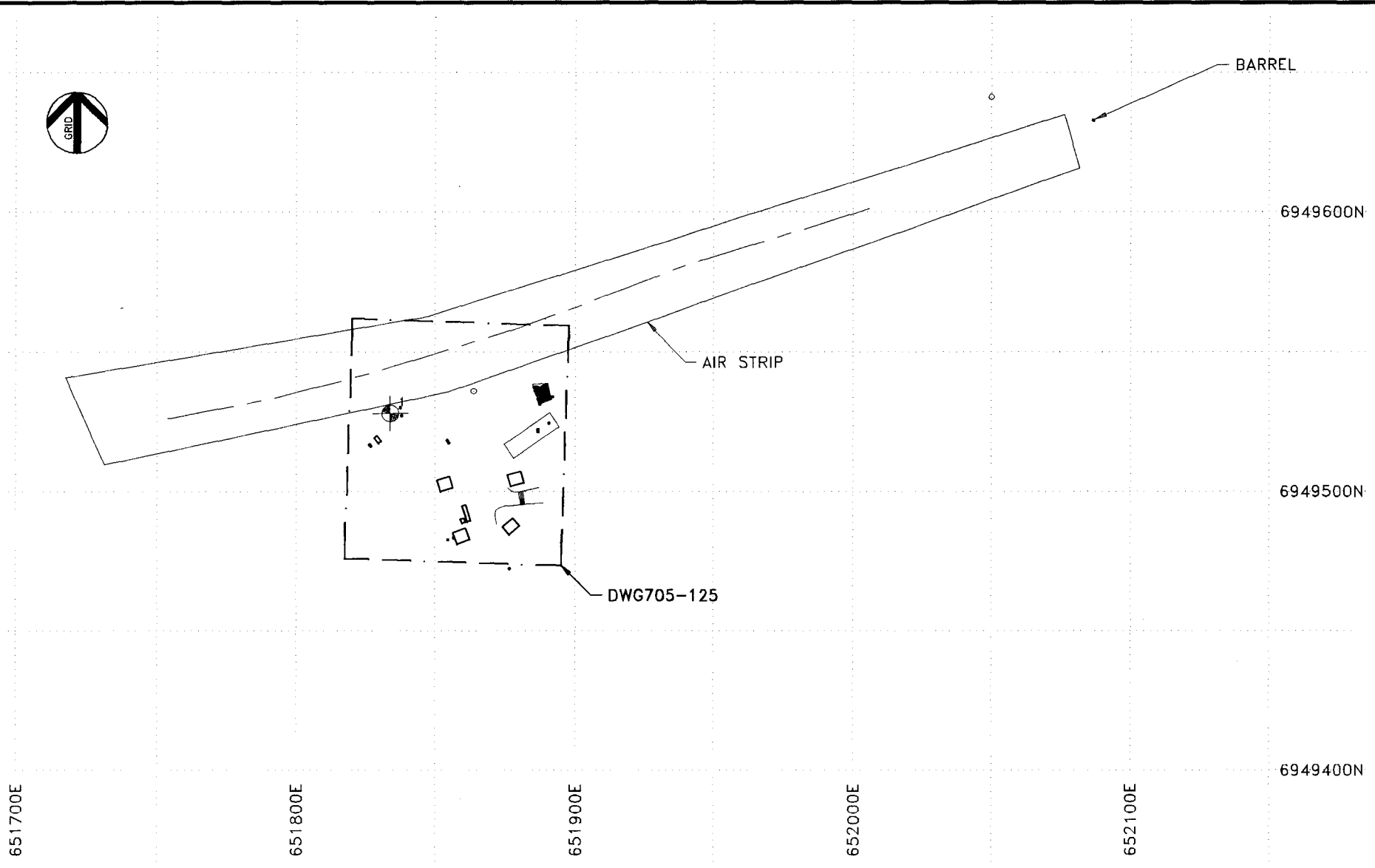
CONTRACT No.:

96-6129

NOTE:

1. GRID COORDINATES ARE UNCORRECTED
15min AVERAGE OBTAINED WITH
GEOEXPLORER ii
2. SEE DWG 705-102 FOR GENRAL NOTES

80011-507507-11x.dwg



UTM 50m GRID
ZONE 8 COORDS SHOWN

NOTE:

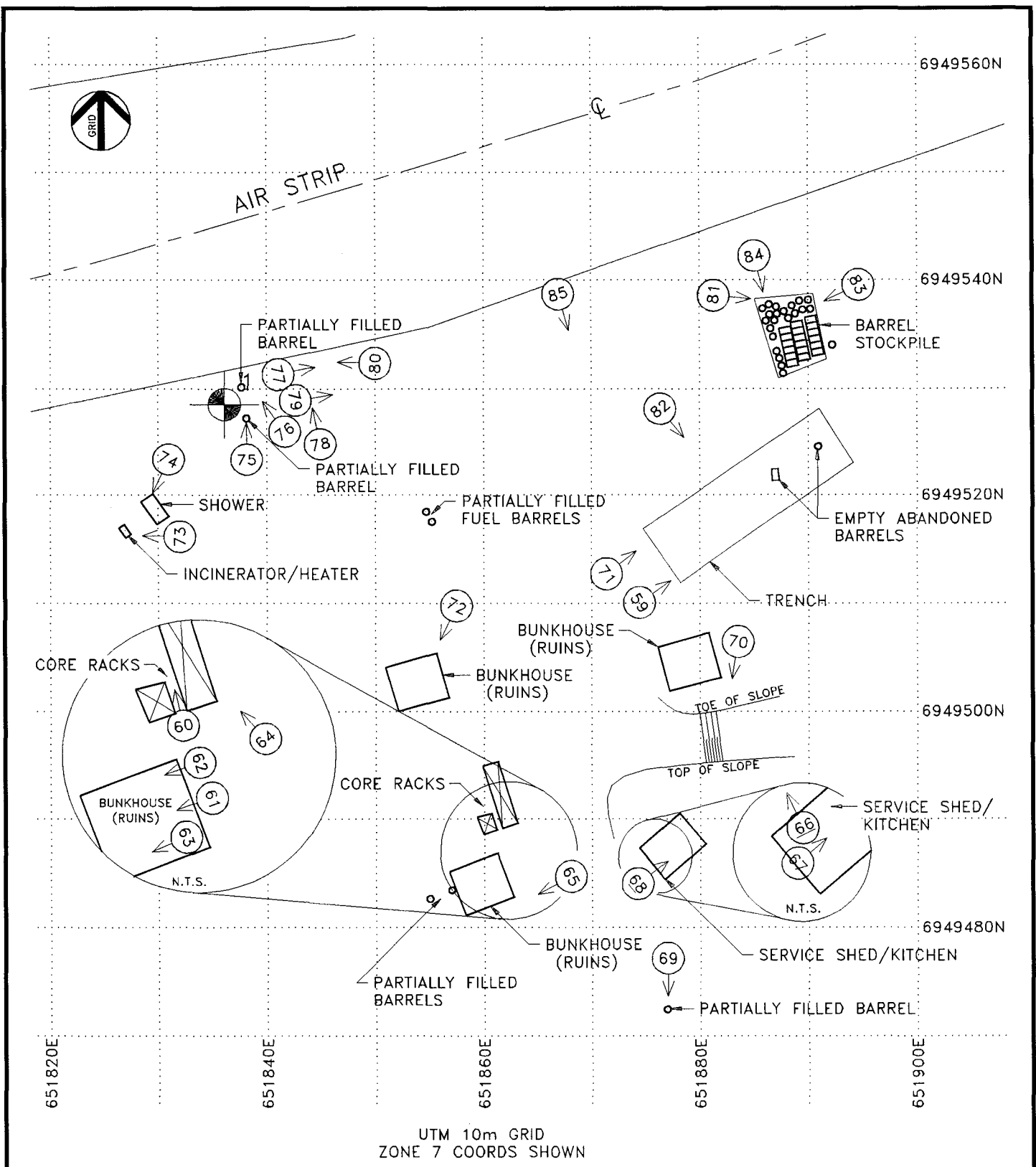
1. GRID COORDINATES ARE UNCORRECTED
15min AVERAGE OBTAINED WITH
GEOEXPLORER ii
2. SEE DWG 705-102 FOR GENRAL NOTES



MDA ENVIRONMENTAL LIMITED
241 DUNSMON STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8399
PHONE: (519) 758-1987

DWG TITLE: SITE PLAN - SITE 42 SUB-SITE CA34		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-124
CHECKED BY: RDD	SCALE: 1:2000	CONTRACT No.: 96-6129

cdt - dwg705\705-124.dwg



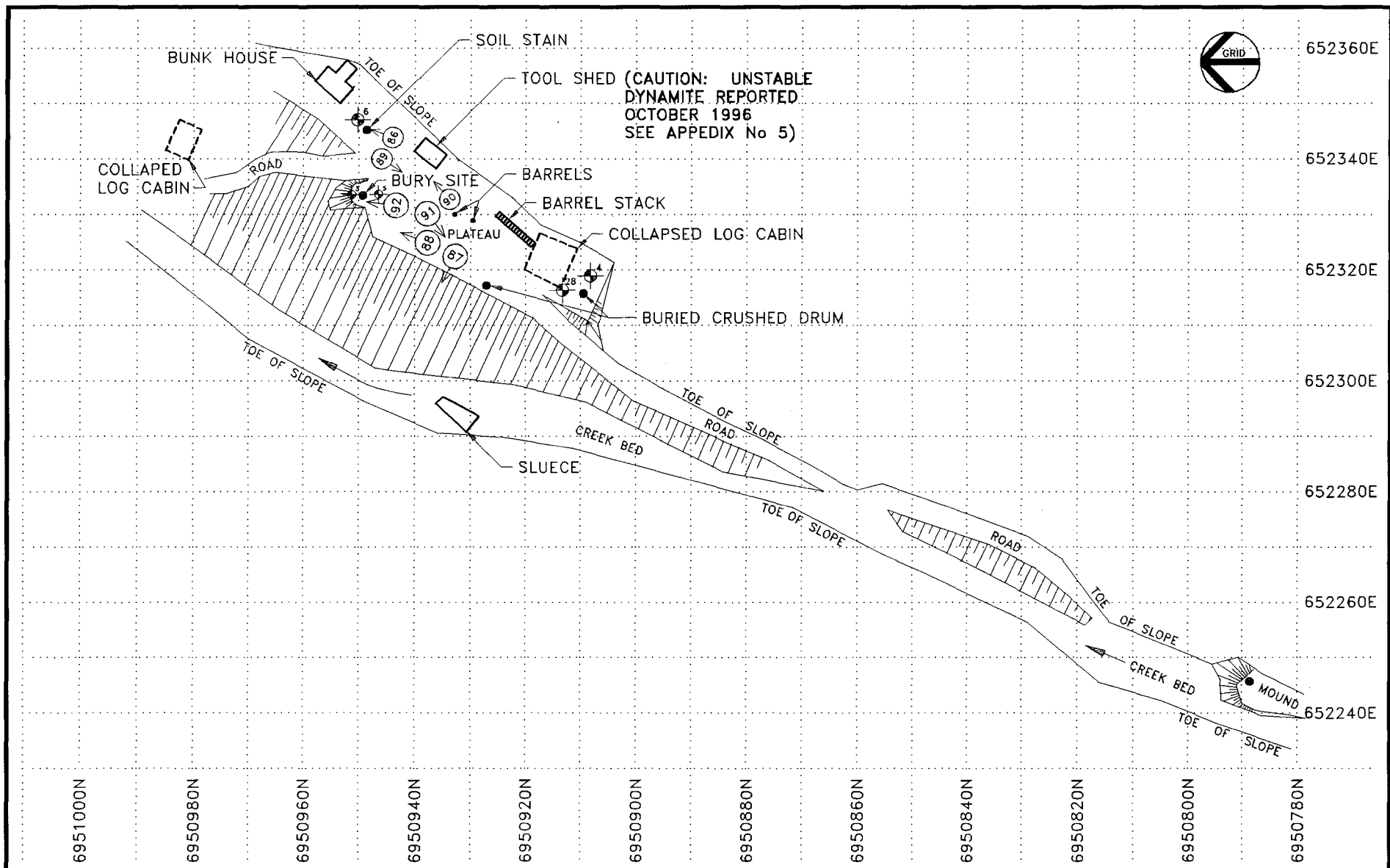
UTM 10m GRID
ZONE 7 COORDS SHOWN

NOTE:
 1. GRID COORDINATES ARE UNCORRECTED
 15min AVERAGE OBTAINED WITH
 GEOEXPLORER ii
 2. SEE DWG 705-102 FOR GENRAL NOTES

MDA
ENVIRONMENTAL
 MDA ENVIRONMENTAL LIMITED
 241 DUNSDON STREET
 BRANTFORD
 ONTARIO
 N3R 7C3
 FAX: (519) 758-8399
 PHONE: (519) 758-1997

DWG TITLE: SUB-SITE CA34 DEBRIS PLAN		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-125
CHECKED BY: RDD	SCALE: 1:500	CONTRACT No.: 96-6129

cad1 - dwg 705-125.dwg



UTM 10m GRID
ZONE 7 COORDS SHOWN

- NOTE:**
1. GRID COORDINATES ARE UNCORRECTED
15min AVERAGE OBTAINED WITH
GEOEXPLORER ii
 2. SEE DWG 705-102 FOR GENRAL NOTES

MDA
ENVIRONMENTAL

MDA ENVIRONMENTAL LIMITED
241 DUNSMON STREET
BRANTFORD
ONTARIO
N3R 7G3
FAX: (519) 758-8399
PHONE: (519) 758-1997

DWG TITLE: SITE PLAN - SITE 42 SUB-SITE CA35		
CLIENT: INDIAN AND NORTHERN AFFAIRS CANADA ARCTIC ENVIRONMENTAL STRATEGY - YUKON ACTION ON WASTE PROGRAM		
DRAWN BY: REB	DATE: DEC, 1996	DWG No.: 705-126
CHECKED BY: RDD	SCALE: 1:1000	CONTRACT No.: 96-6129

ccdl - dwg\705-126.dwg

APPENDIX No. 3
Site Photographs
Complete Set

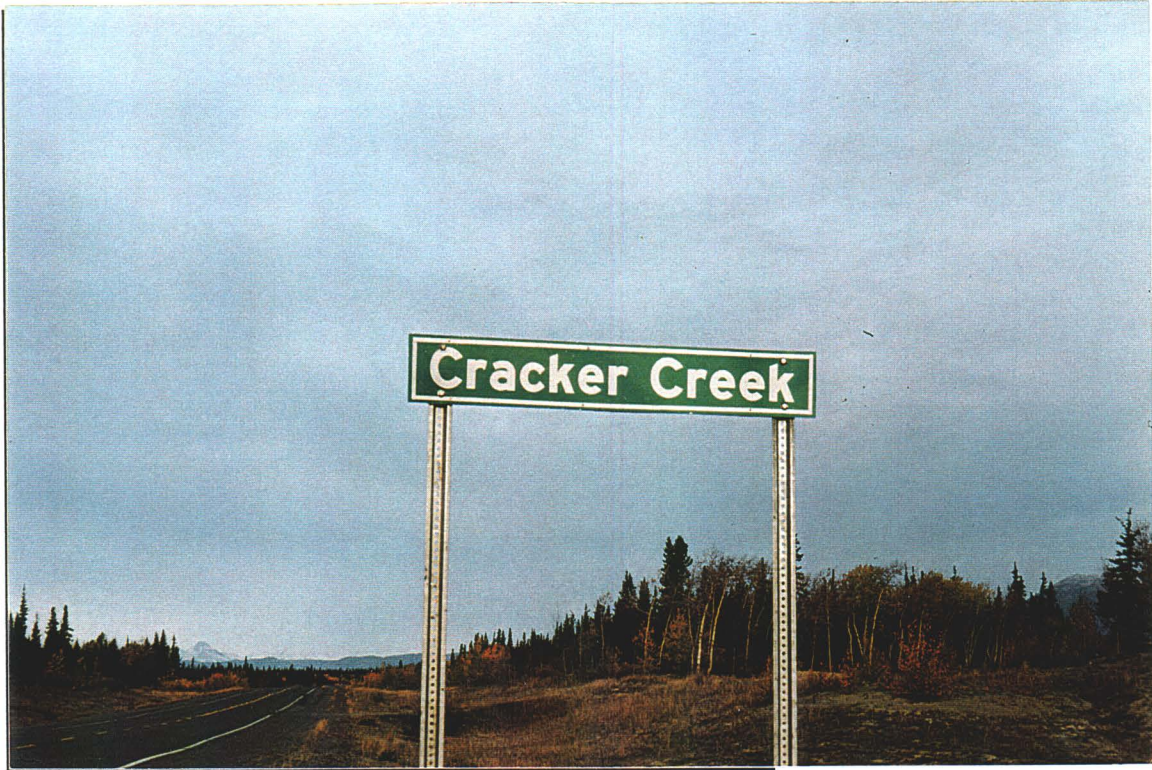


Photo 1: Site 19. Alaska Highway at Cracker Creek, looking west, September 1996.

Photo 2: Site 19. Cracker Creek, looking north from Alaska Highway, September 1996.





Photo 3: Site 19. Alaska Highway at Cracker Creek, looking east, September 1996.

Photo 4: Site 19-A. Burial site, September 1996.



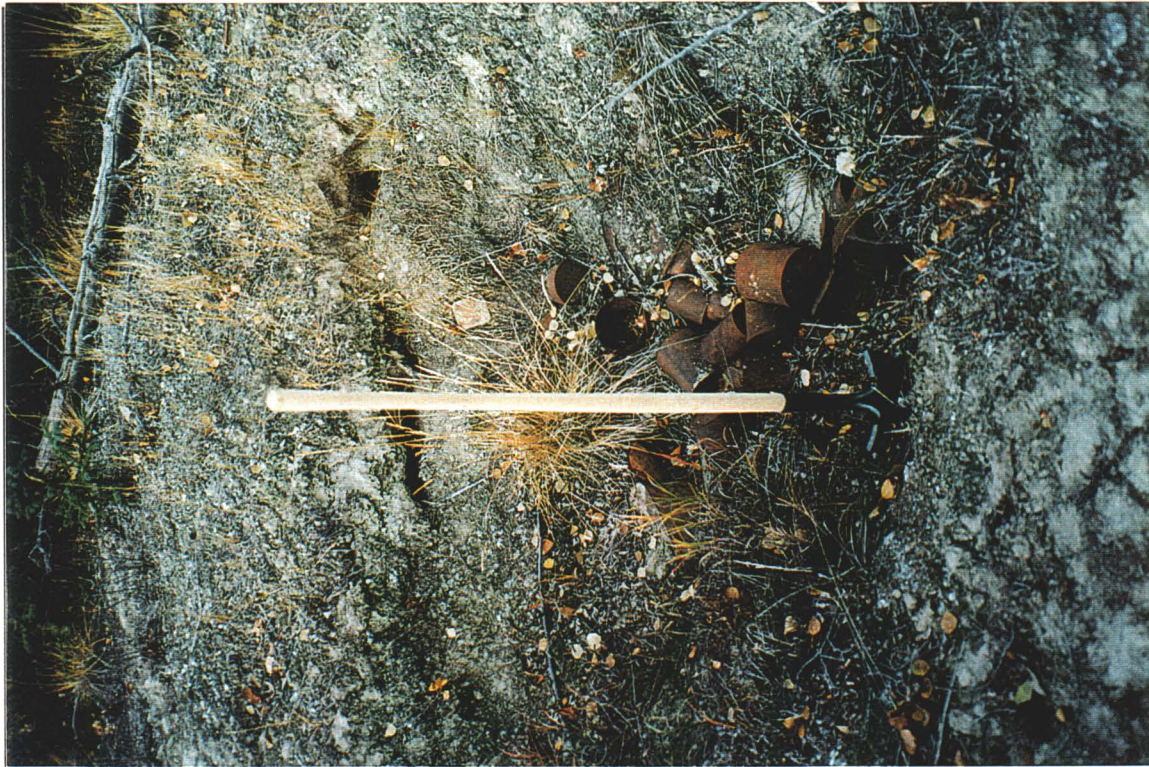


Photo 5: Site 19-A. Exposed debris by burial site, September 1996.

Photo 6: Site 19-E. Roadway, September 1996.





Photo 7: Site 19-E. Previously cleared area with surface debris. September 1996.

Photo 8: Site 19-F. Previously cleared area, September 1996.





Photo 9: Site 19-H. Surface debris, September 1996.

Photo 10: Site 19-H. Surface debris, September 1996.





Photo 11: Site 19-I. Previously cleared area, September 1996.

Photo 12: Site 19-I. Old Alaska Highway, looking north, September 1996.





Photo 13: Site 19-I. Previously cleared area, September 1996.

Photo 14: Site 20-A. Pumping station foundation ruins, September 1996.





Photo 15: Site 20-A: Pumping station parking lot,
September 1996.

Photo 16: Site 20-A: Pumping station foundation ruins,
September 1996.





Photo 17: Site 20-A: Pumping station foundation ruins, September 1996.

Photo 18: Site 20-A: Pumping station foundation ruins, September 1996.





Photo 19: Site 20-B-2. Metal surface debris, September 1996.

Photo 20: Site 20-B-2. Surface debris, September 1996.





Photo 21: Site 20-B-2. Surface debris, September 1996.

Photo 22: Site 20-B-5. Site marking, September 1996.

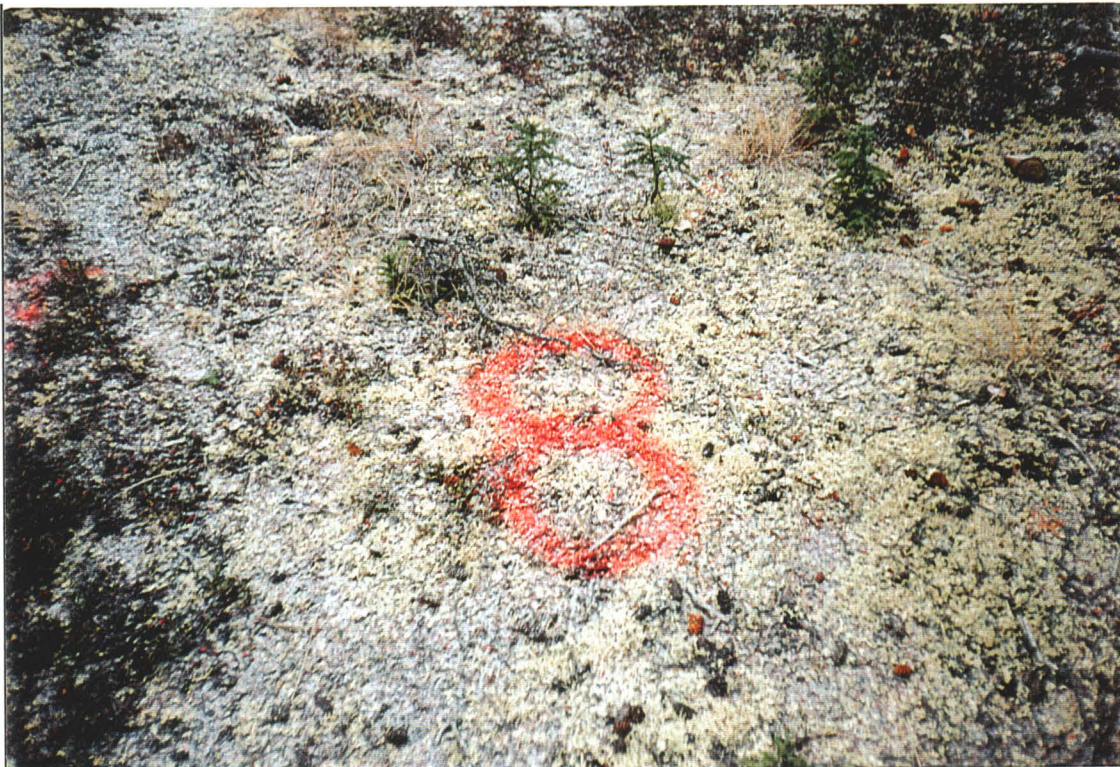




Photo 23: Site 20-B-5. Surface debris, September 1996.

Photo 24: Site 20-B-5. Surface debris, September 1996.





Photo 25: Site 20-B-5. Metallic surface debris, September 1996.

Photo 26: Site 20-B-5. Metallic surface debris, September 1996.





Photo 27: Site 20-B-5. Assorted surface debris, September 1996.

Photo 28: Site 20-B-5. Metal debris, September 1996.





Photo 29: Site 20-B-11. Previously cleared area, September 1996.

Photo 30: Site 20-B-11. Previously cleared area, September 1996.





Photo 31: Site 20-B-15. Site marking, September 1996.

Photo 32: Site 20-B-15. Surface debris, September 1996.





Photo 33: Site 20-B-15. Surface debris, September 1996.

Photo 34: Site 20-B-15. Surface debris, September 1996.





Photo 35: Site 20-B-15. Metal debris, September 1996.

Photo 36: Site 20-B-15. Metal debris, September 1996.





Photo 37: Site 20-B-15. Surface debris, September 1996.

Photo 38: Site 20-B-15. Surface debris, September 1996.





Photo 39: Site 20-B-15. Stained soil, September 1996.

Photo 40: Site 20-B-15. Surface soil sample, September 1996.





Photo 41: Site 20-B-16. Surface debris, September 1996.

Photo 42: Site 20-B-16. Surface debris, September 1996.





Photo 43: Site 20-B-16. Surface debris, September 1996.

Photo 44: Site 20-B-16. Surface debris, September 1996.





Photo 45: Site 20-B-17: Surface debris, September 1996.

Photo 46: Site 20-B-17: Surface debris, September 1996.





Photo 47: Site 20-B-17. Surface debris, September 1996.

Photo 48: Site 20-B. Gravel pit south of Alaska Highway, September 1996.





Photo 49: Site 20-C. Gravel road to south side of gravel stockpile, September 1996.

Photo 50: Site 20-C. Gravel stockpile and debris burn site, September 1996.





Photo 51: Site 20-D. View to southwest (Aishihik River)
from top of former military dump, September 1996.

Photo 52: Site 20-D. View to northwest (Alaska Highway)
from top of former military dump, September 1996.





Photo 53: Site 42-CA-32. View of prospecting camp (looking northward) from Apex Creek, October 1996.

Photo 54: Site 42-CA-33. Artificial flood plane at Sonora Gulch, October 1996.





Photo 55: Site 42-CA-33. Fuel storage tanks, October 1996.

Photo 56: Site 42-CA-33. Barrels and debris, October 1996.





Photo 57: Site 42-CA-33. Barrel dump, October 1996.

Photo 58: Site 42-CA-33. Northward view towards Selkirk Creek, October 1996.





Photo 59: Site 42-CA-34. Excavated trench parallel to airstrip, October 1996.

Photo 60: Site 42-CA-34. Core racks, October 1996.



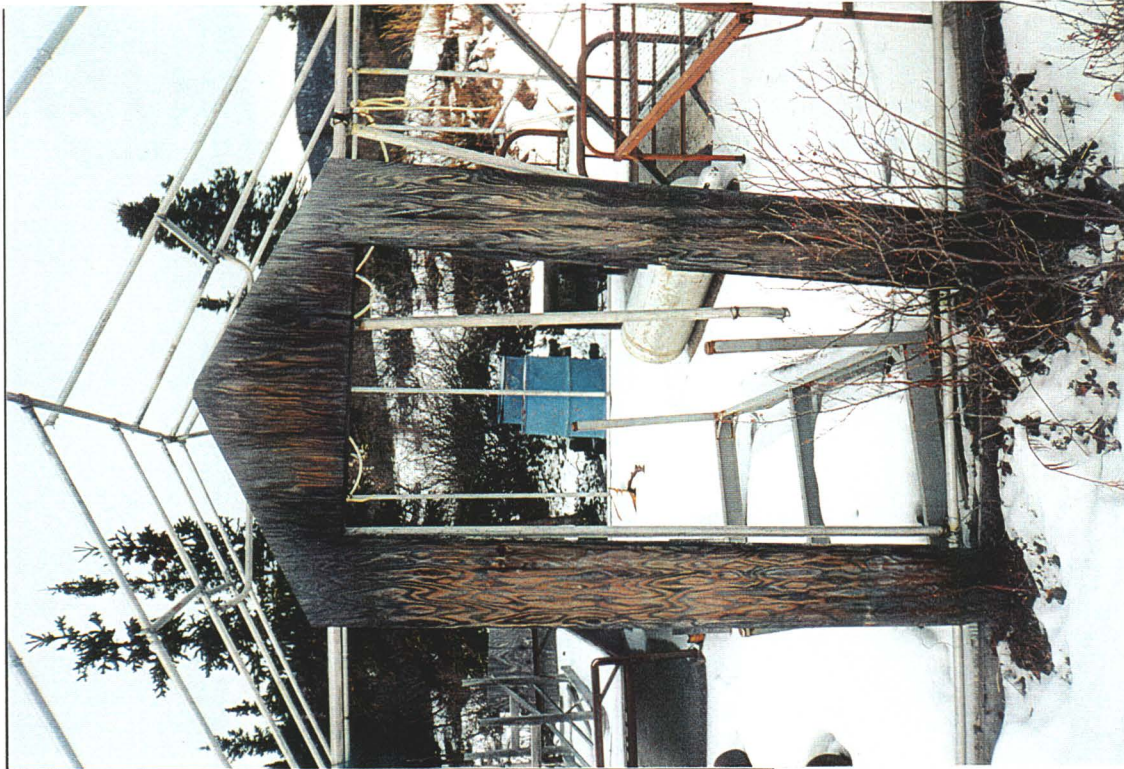


Photo 61: Site 42-CA-34. Tent frame, October 1996.

Photo 62: Site 42-CA-34. Bunks and gas cylinder, October 1996.



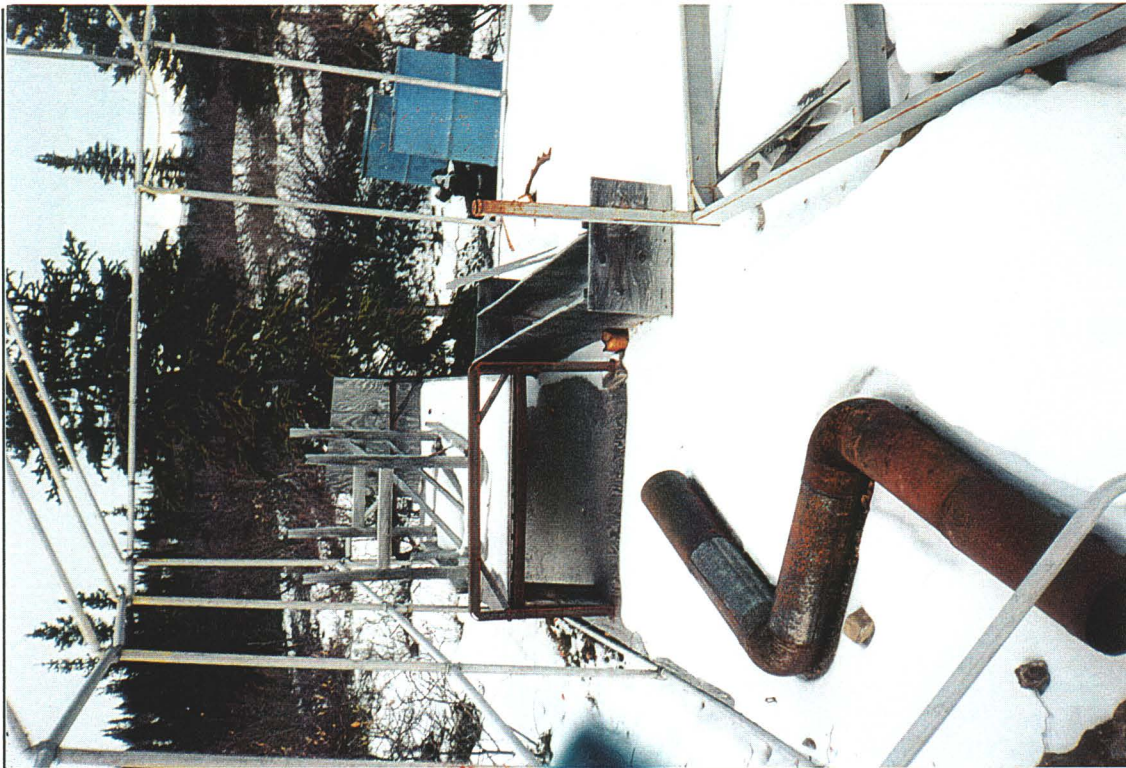


Photo 63: Site 42-CA-34. Cots and debris, October 1996.

Photo 64: Site 42-CA-34. Core racks, October 1996.





Photo 65: Site 42-CA-34. Tent-framed structure, October 1996.

Photo 66: Site 42-CA-34. Interior of frame structure, October 1996.





Photo 67: Site 42-CA-34. Interior of frame structure, October 1996.

Photo 68: Site 42-CA-34. Interior of frame structure, October 1996.





Photo 69: Site 42-CA-34. Barrels and metal frame, October 1996.

Photo 70: Site 42-CA-34. Mounted barrel, October 1996.





Photo 71: Site 42-CA-34. Container proximal to runway trench, October 1966.

Photo 72: Site 42-CA-34. Wooden platform, October 1966.





Photo 73: Site 42-CA-34. Former shower building,
October 1996.

Photo 74: Site 42-CA-34. Former shower building,
October 1996.





Photo 75: Site 42-CA-34. Barrels next to airstrip, October 1996.

Photo 76: Site 42-CA-34. Barrels next to airstrip, October 1996.





Photo 77: Site 42-CA-34. Metal surface debris, October 1996.

Photo 78: Site 42-CA-34. Metal surface debris, October 1996.





Photo 79: Site 42-CA-34. Metal surface debris, October 1996.

Photo 80: Site 42-CA-34. Barrels beside airstrip, October 1996.





Photo 81: Site 42-CA-34. Drums beside airstrip, October 1996.

Photo 82: Site 42-CA-34. Core boxes, October 1996.





Photo 83: Site 42-CA-34. Drums beside airstrip, October 1996.

Photo 84: Site 42-CA-34. Drums beside airstrip, October 1996.





Photo 85: Site 42-CA-34. Caterpillar tracks beside airstrip, October 1996.

Photo 86: Site 42-CA-35. Bulldozer and frame structure. October 1996.





Photo 87: Site 42-CA-35. View of creek bed, October 1996.

Photo 88: Site 42-CA-35. Woodpile and bury site, October 1996.





Photo 89: Site 42-CA-35. Barrel stacks and dilapidated cabin, October 1996.

Photo 90: Site 42-CA-35. Storage shed containing old explosives (centre left), October 1996.





Photo 91: Site 42-CA-35. View of creek ravine, October 1996.

Photo 92: Site 42-CA-35. Buried barrel under wood pile, October 1996.





Photo 93: Site 42. Selkirk Creek, looking west towards site 42, October 1996.

Photo 94: Site 42. Hayes Creek, looking west towards site 42, October 1996.





Photo 95: Site 42. Hayes Creek, looking north, October 1996.

Photo 96: Site 42. Sonora Gulch, looking west, October 1996.

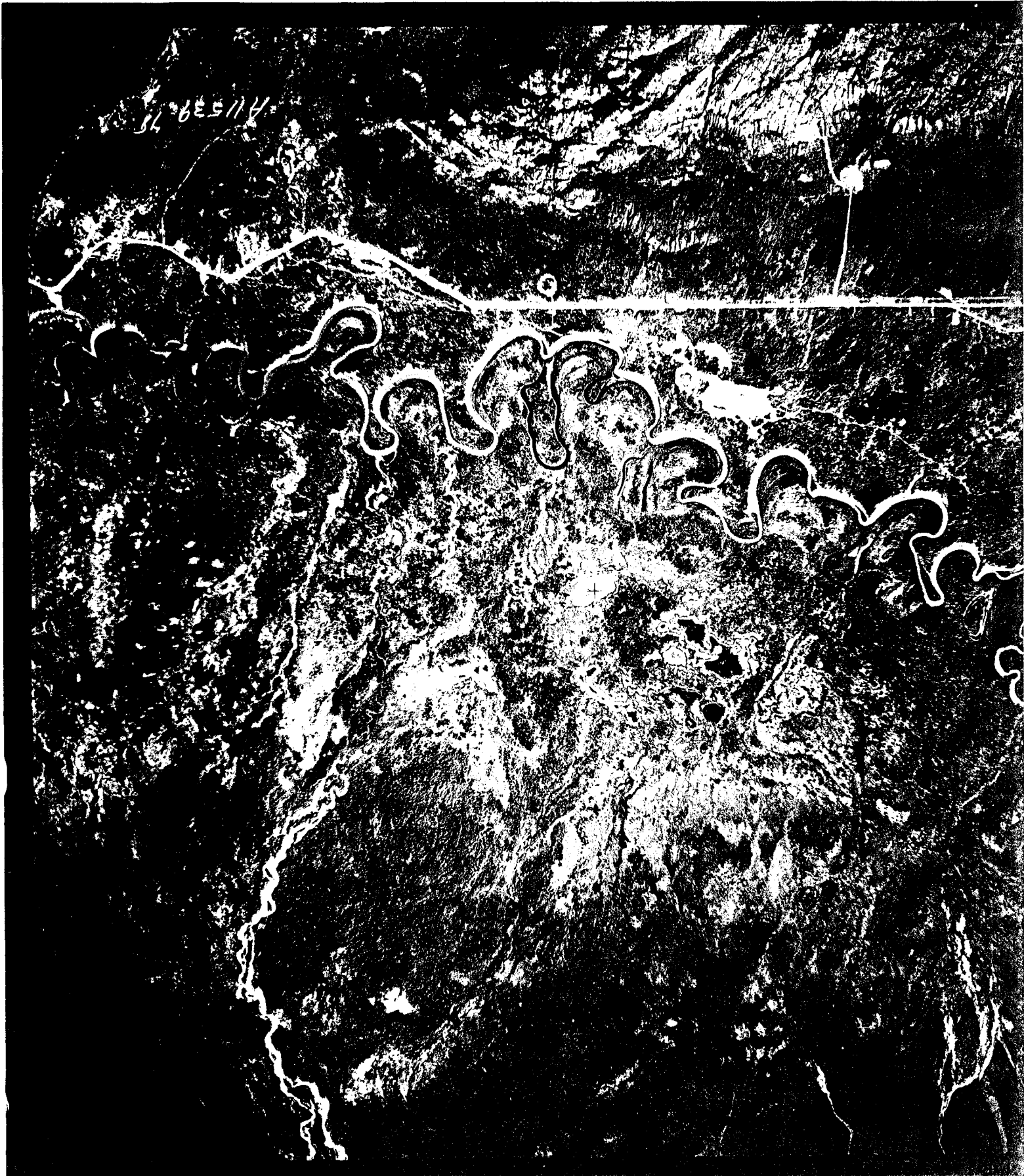




Photo 97: Site 42. Sonora Gulch, looking north towards Site 42-CA-35 and Site 42-CA-33, October 1996.

APPENDIX No. 4
Historical Air Photos
Sites 19 and 20

© SA MAJESTE LA REINE DU CHEF DU CANADA, MINISTERE DE L'ENERGIE, DES MINES ET DES RESSOURCES.

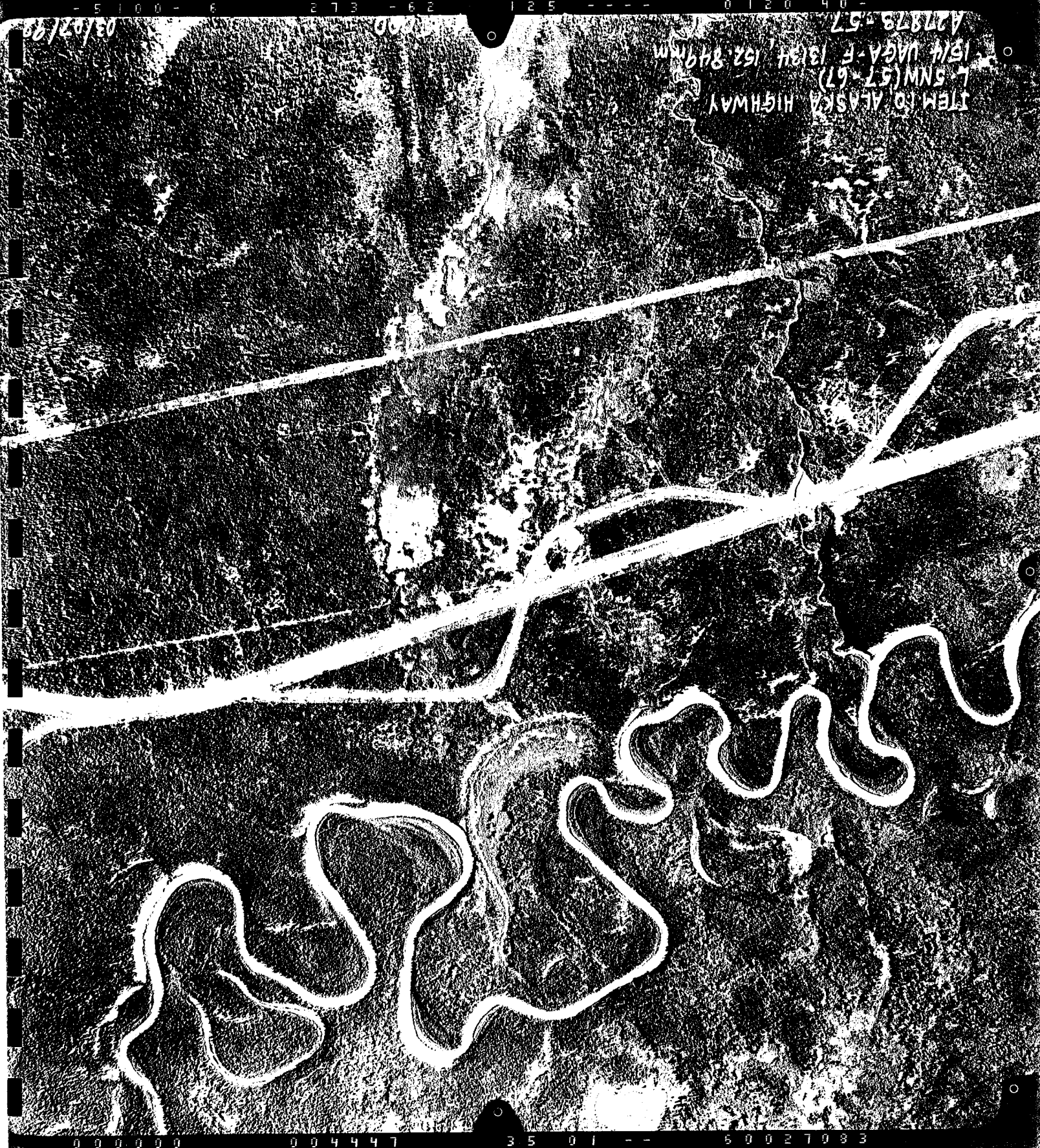


© HER MAJESTY THE QUEEN IN RIGHT OF CANADA, DEPARTMENT OF ENERGY, MINES AND RESOURCES.

© SA MAJESTE LA REINE DU CHEF DU CANADA, MINISTERE DE L'ENERGIE, DES MINES ET DES RESSOURCES.



© HER MAJESTY THE QUEEN IN RIGHT OF CANADA, DEPARTMENT OF ENERGY, MINES AND RESOURCES.

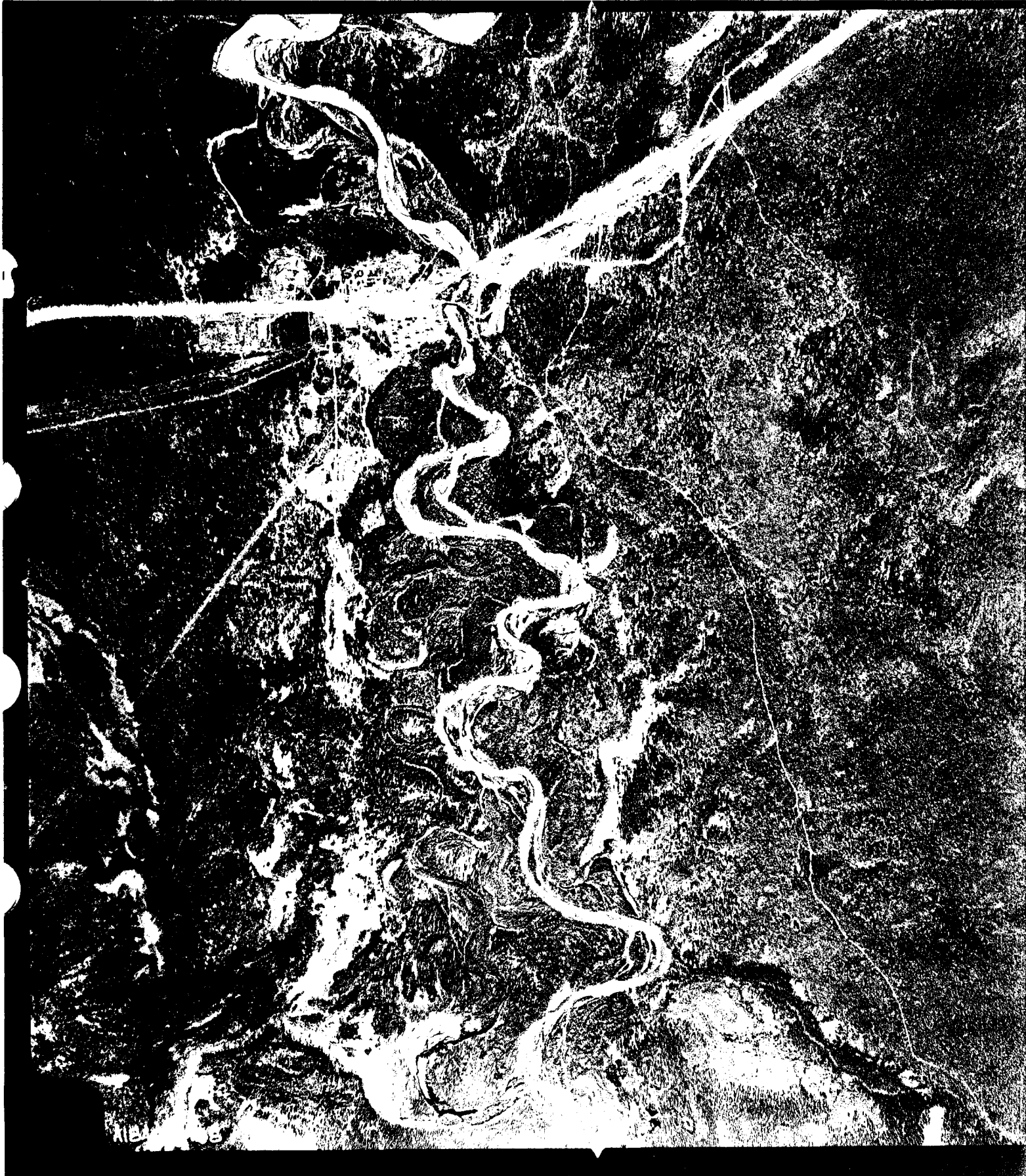


03/07/98
A27978-57
L-5NM(57-67)
ITEM NO ALASKA HIGHWAY
1514 UAGA-F 13.94 152.849mm



A11458-24

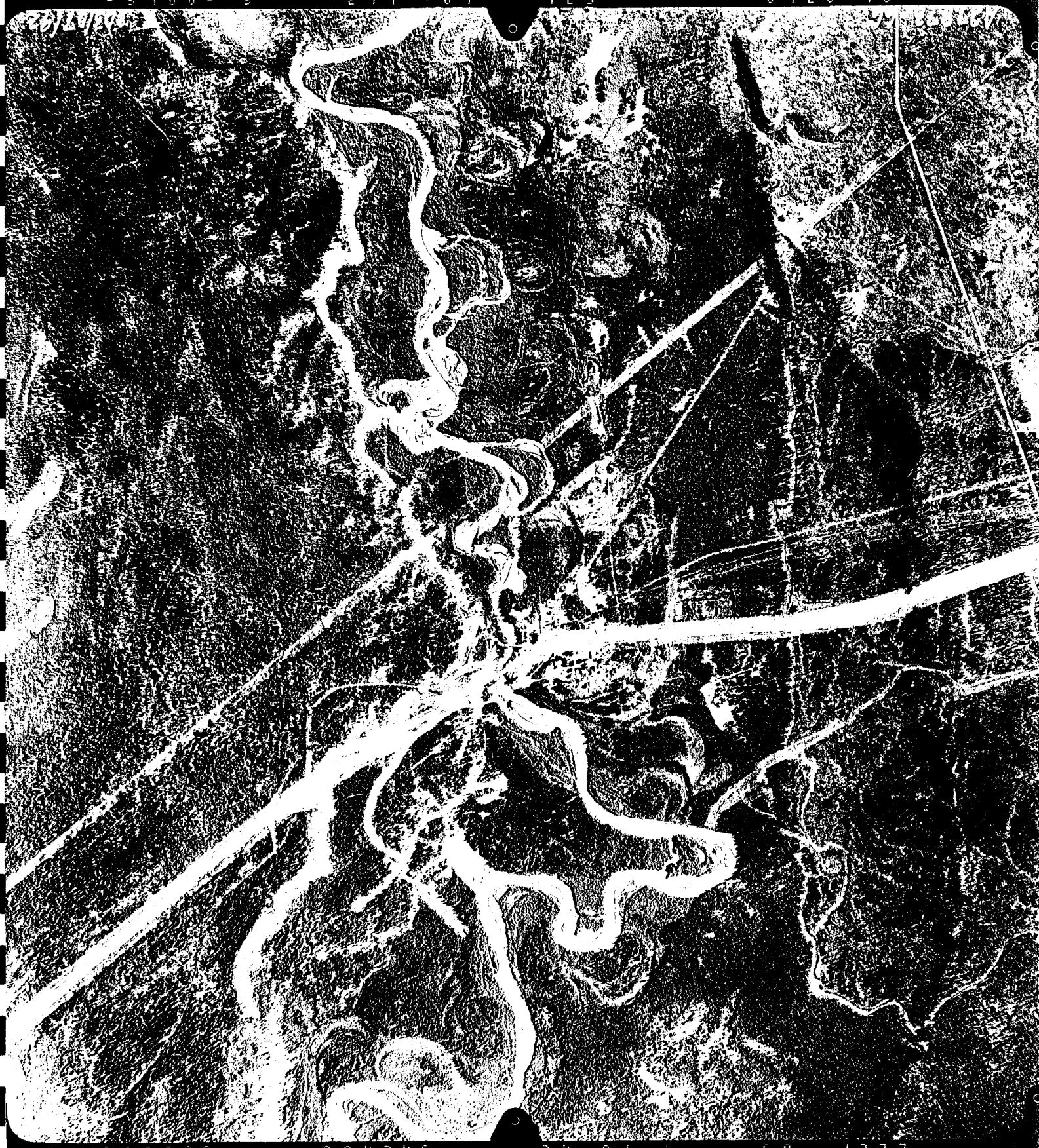
© SA MAJESTE LA REINE DU CHEF DU CANADA, MINISTERE DE L'ENERGIE, DES MINES ET DES RESSOURCES.



© HER MAJESTY THE QUEEN IN RIGHT OF CANADA, DEPARTMENT OF ENERGY, MINES AND RESOURCES.

SA MAJESTE LA REINE DU CHEF DU CANADA, MINISTERE DE L'ENERGIE, DES MINES ET DES RESSOURCES. I

- 5 1 0 0 - 5 2 7 1 - 6 1 1 2 5 - - - 0 1 2 0 4 0 -



0 0 0 0 0 0 0 0 0 4 3 4 5 3 4 0 1 - - 6 0 1 3 7 7

© HER MAJESTY THE QUEEN IN RIGHT OF CANADA, DEPARTMENT OF ENERGY, MINES AND RESOURCES. I

APPENDIX No. 5
Letter to Indian and Northern Affairs
Hazardous Condition - Site 42-CA35

APPENDIX No. 6
Soil Particle Size Analysis
Sites 19 and 20

Appendix 6: Complete results of grain size analyses for Sites 19 (Cracker CR.) and Site 20 (Canyon Cr.)

Yukon Field Sites, Fall 1996									
Grain Size Analyses									
Site 19									
Grain Size	#1			#2			#3		
Sieving Time	35 min			15 min			15 min		
	Mass (g)	Percent	notes	Mass (g)	Percent	notes	Mass (g)	Percent	notes
Gravel (>2.00 mm)	25.80	13.32	clumped fines	75.50	27.24	clumped fines	49.60	18.42	clumped fines
Coarse Sand (2.00 - 0.5 mm)	68.00	35.11	clumped fines	118.30	42.68	clumped fines	128.20	47.62	clumped fines
Fine Sand (0.5 - 0.063 mm)	85.70	44.24	clumped fines	74.30	26.80	clumped fines	83.40	30.98	clumped fines
Silt & Clay (<0.063 mm)	14.20	7.33		9.10	3.28		8.00	2.97	
Description			sandy gravel with clay matrix			sandy gravel with clay matrix			sandy gravel with clay matrix
Total	193.70	100.00		277.20	100.00		269.20	100.00	
Site 20 - Military Dump									
Grain Size	#1			#2					
Sieving Time	15 min			15 min					
	Mass (g)	Percent	notes	Mass (g)	Percent	notes			
Gravel (>2.00 mm)	190.40	54.84		97.00	37.50				
Coarse Sand (2.00 - 0.5 mm)	29.70	8.55	30% org. debris	36.10	13.95	40% org. debris			
Fine Sand (0.5 - 0.063 mm)	101.10	29.12		100.70	38.93				
Silt & Clay (<0.063 mm)	26.00	7.49		24.90	9.63				
Total	347.20	100.00		258.70	100.00				
Description			sandy gravel			sandy gravel			

Appendix 6: (cont'd.)

Site 20-16						
Grain Size	#1			#2		
Sieving Time	15 min			15 min		
	Mass (g)	Percent	notes	Mass (g)	Percent	notes
Gravel (>2.00 mm)	4.00	1.69	all org. debris	2.40	0.95	all org. debris
Coarse Sand (2.00 - 0.5 mm)	7.10	3.00	all org. debris	5.30	2.09	all org. debris
Fine Sand (0.5 - 0.063 mm)	180.10	76.22		198.90	78.52	
Silt & Clay (<0.063 mm)	45.10	19.09		46.70	18.44	
Total	236.30	100.00		253.30	100.00	
Description			silty sand			silty sand
Site 20						
Grain Size	#1			#2		
Sieving Time	15 min			15 min		
	Mass (g)	Percent	notes	Mass (g)	Percent	notes
Gravel (>2.00 mm)	1.70	0.50	all org. debris	2.70	0.74	all org. debris
Coarse Sand (2.00 - 0.5 mm)	13.20	3.90	30% org. debris	13.30	3.67	30% org. debris
Fine Sand (0.5 - 0.063 mm)	263.30	77.69		283.00	78.03	
Silt & Clay (<0.063 mm)	60.70	17.91		63.70	17.56	
Total	338.90	100.00		362.70	100.00	
Description			silty sand			silty sand

APPENDIX No. 7
Macroinvertebrate Survey - Aishihik River
Field Notes

Field Notes for Macroinvertebrate Survey

Sampler Name(s) Todd Williams / Karen Deating

Date/Time Sept. 29, 1996 / 11:30am

Site/Location 1 / Downstream

Water Temperature 0.1°C

Weather Past 24 hours Snow & hail

Current Speed (m/s) X 1.16 m/s X 1.28 m/s X X X \approx 1.22 m/s

General Bottom Type

%Rock 95 %Gravel 0 %Sand 0 %Silt-Clay 5-10

%Logs 5-10 %Open 85-90 %Shaded 0

Other Notes (i.e. water depth, wind, plumes etc.)

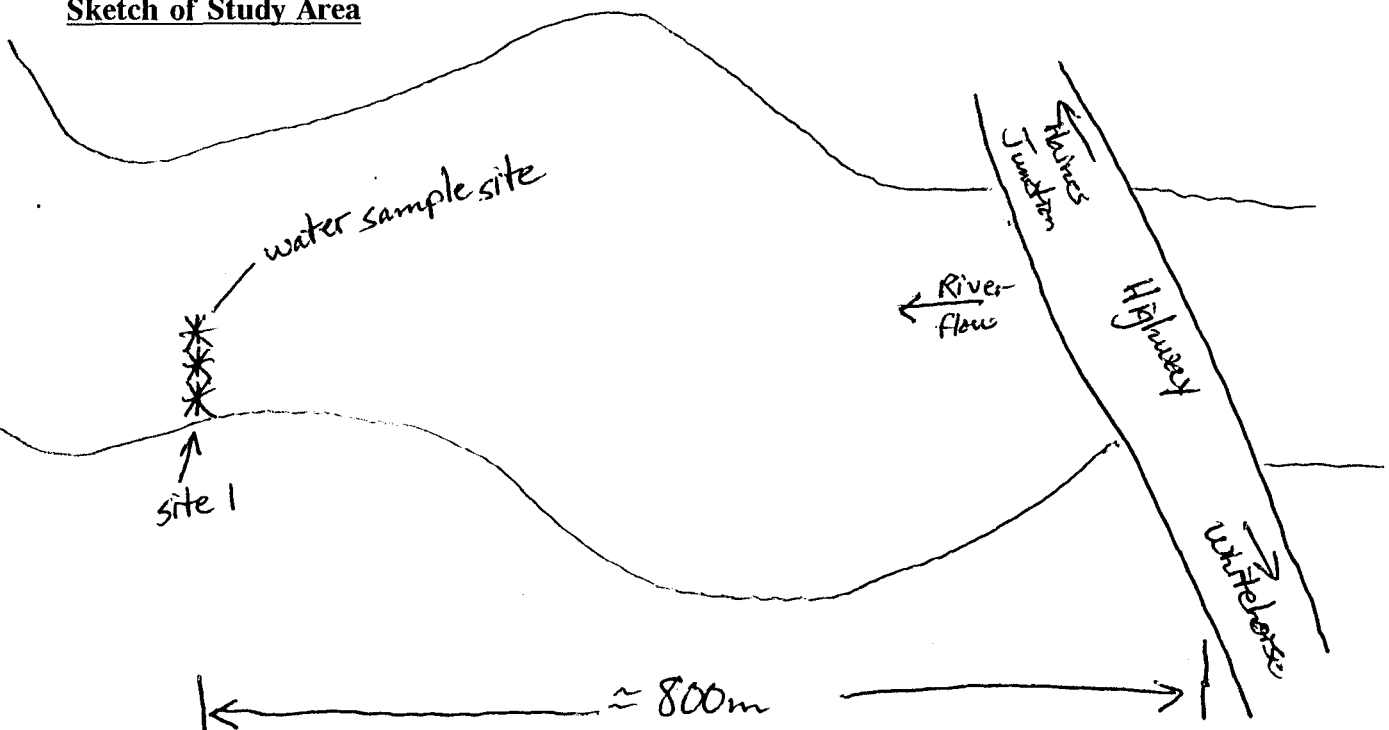
pH 8.27

-78.2 mV

- water is about 5" (^{13cm}) deep & 4m out where composite macroinvertebrate samples were collected

(Samples 1A & 1B) ; water sample was taken - labelled 1R

Sketch of Study Area



Field Notes for Macroinvertebrate Survey

Sampler Name(s) Todd Williams / Karen Dearing

Date/Time Sept. 29, 1996 / 2:00pm

Site/Location 2 / Bridge - upstream

Water Temperature 0.1°C

Weather Past 24 hours Snow & hail

Current Speed (m/s) X 0 X 0 X 0.92m/s X 1.0m/s X _____ $\approx 0.48m/s$

General Bottom Type

%Rock 90-95 %Gravel 0 %Sand 0 %Silt-Clay 5-10

%Logs 15-20 %Open 85 %Shaded 0

Other Notes (i.e. water depth, wind, plumes etc.)

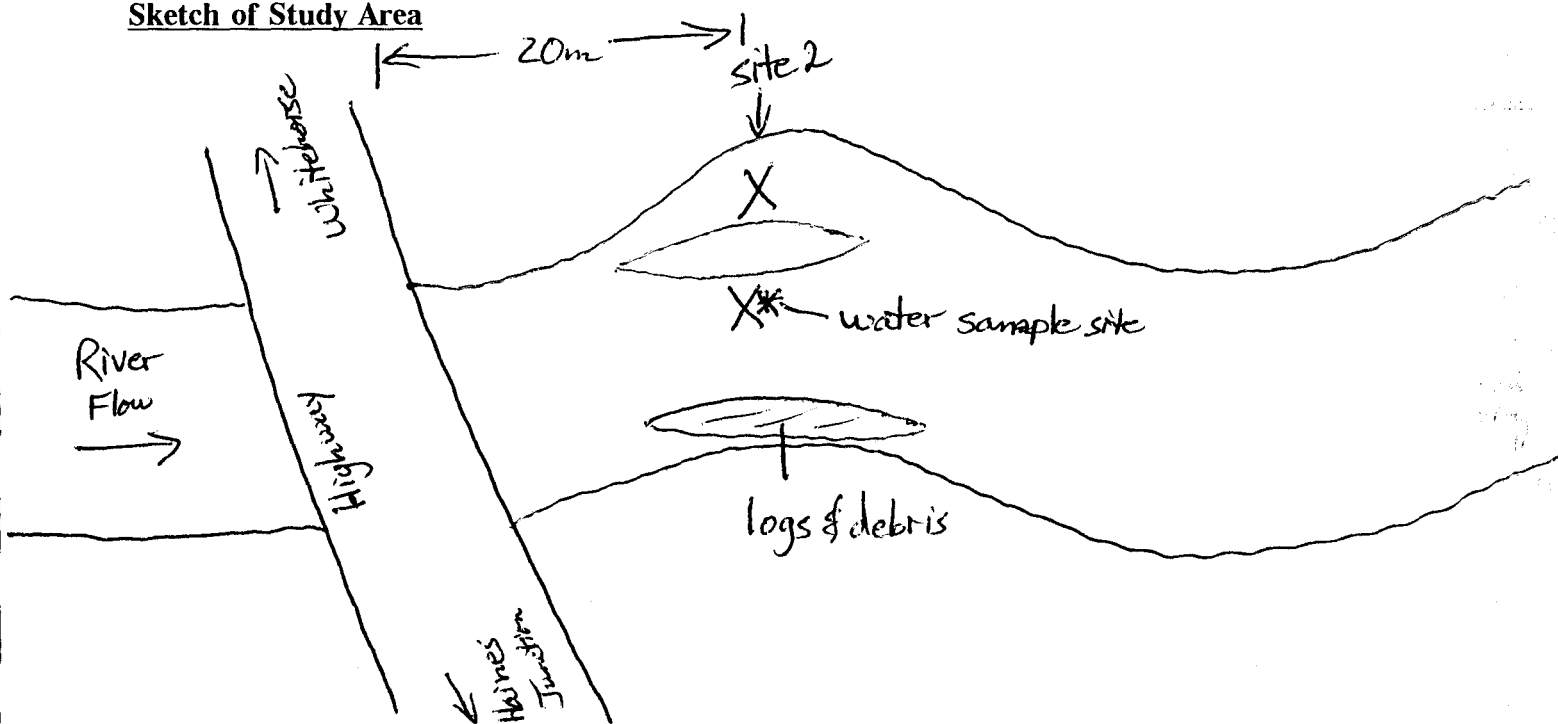
pH 8.32 - water sample was taken - labelled 2R
-75.2mV

- water is about 4 1/4" (11cm) deep

- saw several sculpins (approx. 5-8) & 1 trout? (moving too fast to identify)

- macroinvertebrate samples were collected (Samples 2A, 2B & 2C)

Sketch of Study Area



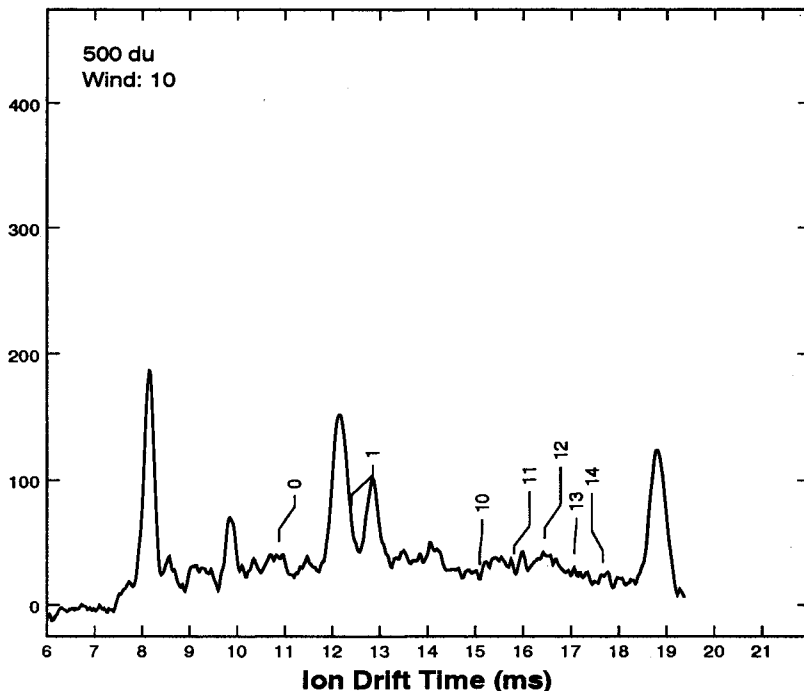
APPENDIX No. 8
IONSCAN Plasmagrams
Soil Pre-screening



IONSCAN™ Explosives Plasmagram

SampID: Samp_1 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 1

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.880
1	TNT	1.4510*	12.402
10	PENTA-CB	1.1922*	15.094 *
11	HEXA-CB	1.1379*	15.815 *
12	HEPTA-CB	1.0938*	16.452 *
13	OCTA-CB	1.0538*	17.077 *
14	NONA-CB	1.0182*	17.674 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 02:45:01 10/06/96
Desc: Site 34, stained surface soil, 2m in front of barrel off airstrip

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10880	332	N/A	N/A	

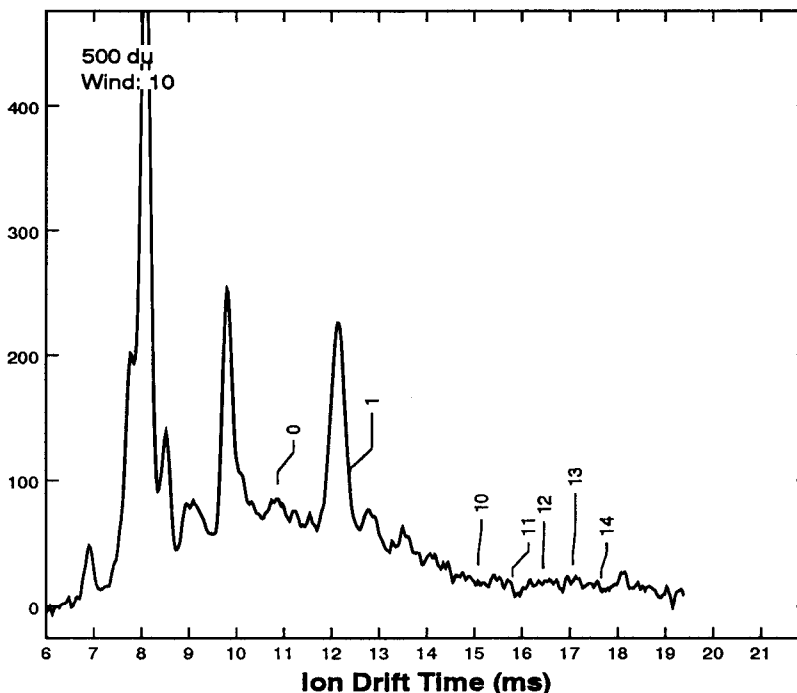
Directory Pathname: a:\
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_3 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 3

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.872
1	TNT	1.4510*	12.393
10	PENTA-CB	1.1922*	15.083 *
11	HEXA-CB	1.1379*	15.803 *
12	HEPTA-CB	1.0938*	16.440 *
13	OCTA-CB	1.0538*	17.064 *
14	NONA-CB	1.0182*	17.661 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25μs T: 20ms Alg: 1 Time: 03:11:59 10/06/96
Desc: Site 35: Pit below crest of mound near cat. (Shawn's pit)

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (μs)	Max Amp	Delta (μs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10872	313	N/A	N/A	

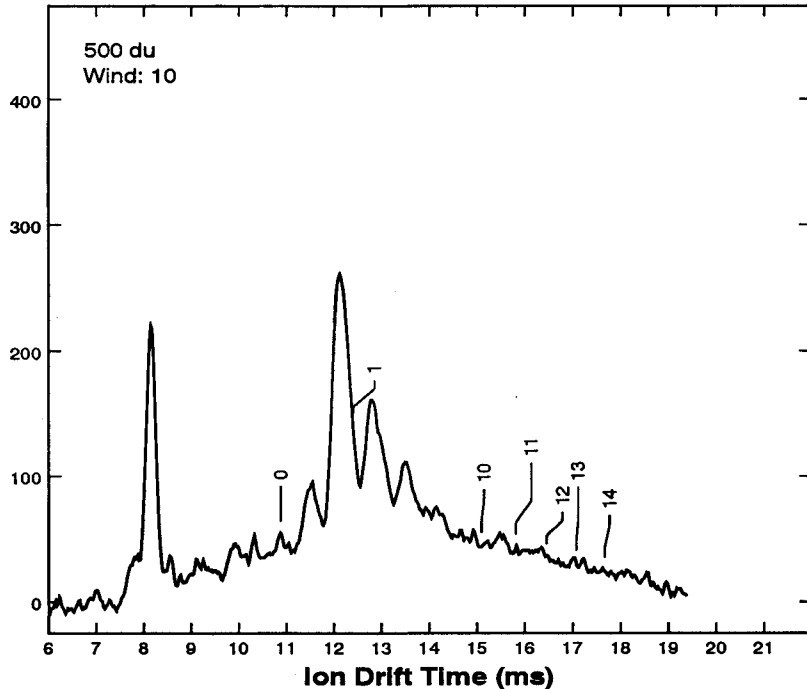
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_4 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 4

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.880
1	TNT	1.4510*	12.402
10	PENTA-CB	1.1922*	15.094 *
11	HEXA-CB	1.1379*	15.815 *
12	HEPTA-CB	1.0938*	16.452 *
13	OCTA-CB	1.0538*	17.077 *
14	NONA-CB	1.0182*	17.674 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:22:57 10/06/96
Desc: Site 35: 5 m right of log cabin, 30 cm deep

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10880	329	N/A	N/A	

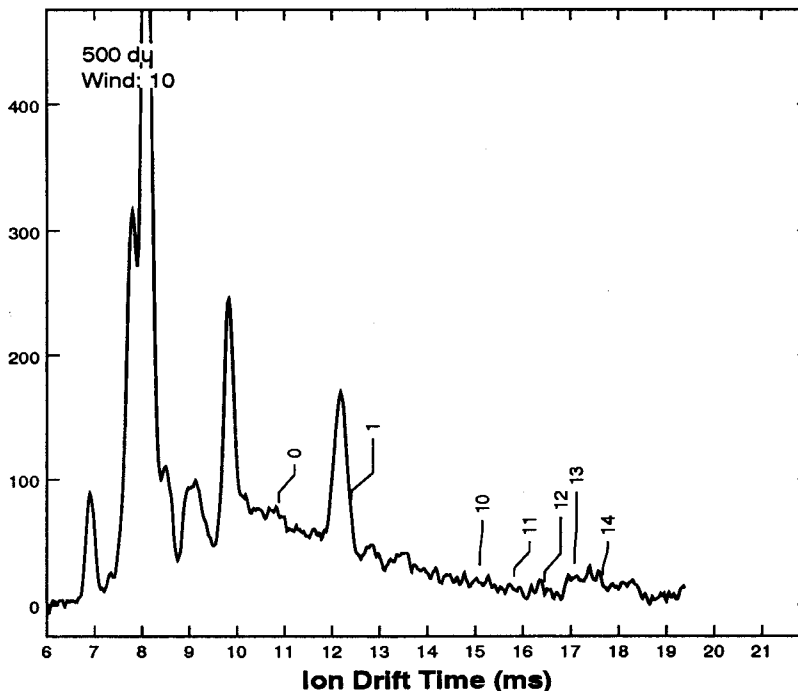
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_5 Cls: yuk WTime: 3.60 - 4.00 s
 Sample: Sample 5

PK1	PeakID	K ₀	DTime
0*	Cal	1.6540*	10.881
1	TNT	1.4510*	12.403
10	PENTA-CB	1.1922*	15.096 *
11	HEXA-CB	1.1379*	15.816 *
12	HEPTA-CB	1.0938*	16.454 *
13	OCTA-CB	1.0538*	17.078 *
14	NONA-CB	1.0182*	17.675 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:34:11 10/06/96
 Desc: Site 35: pit by wood pile-sediment

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K ₀	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10881	327	N/A	N/A	

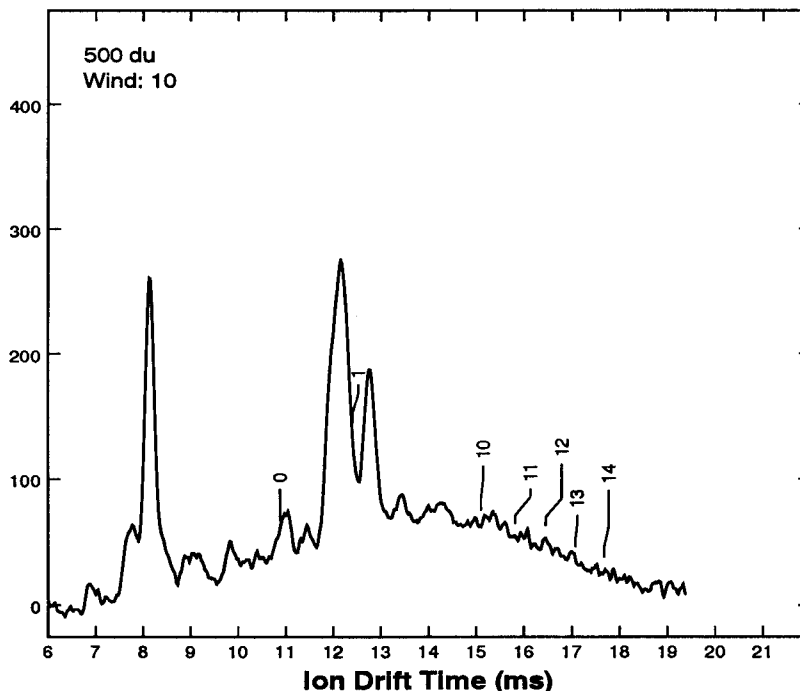
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_6 Cls: yuk WTime: 3.60 - 4.00 s
 Sample: Sample 6

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.882
1	TNT	1.4510*	12.404
10	PENTA-CB	1.1922*	15.097 *
11	HEXA-CB	1.1379*	15.818 *
12	HEPTA-CB	1.0938*	16.455 *
13	OCTA-CB	1.0538*	17.080 *
14	NONA-CB	1.0182*	17.677 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:45:06 10/06/96
 Desc: Site 35: soil under caterpillar- likely motor oil/deisel fuel

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10882	331	N/A	N/A	

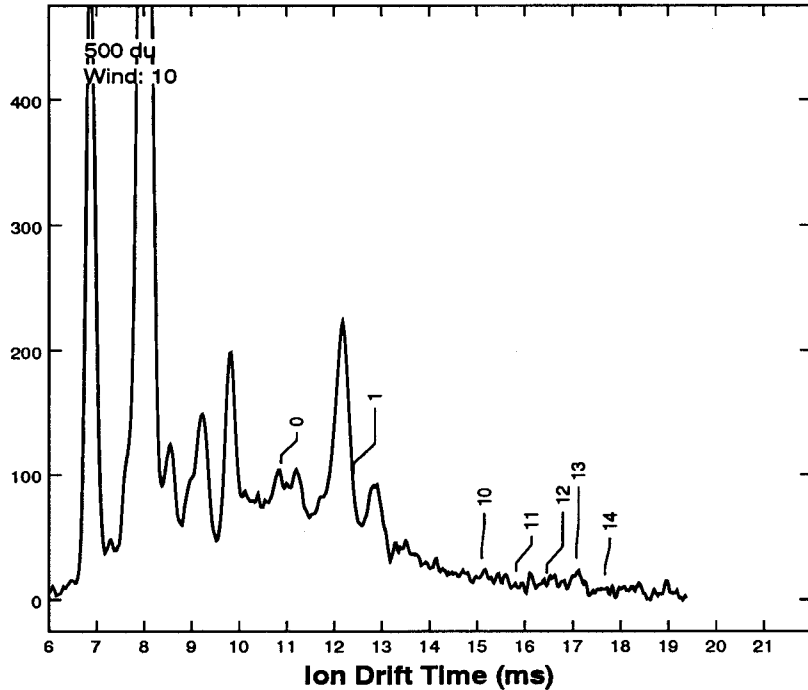
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_8 Cis: yuk WTime: 3.60 - 4.00 s
 Sample: Sample 8

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.880
1	TNT	1.4510*	12.402
10	PENTA-CB	1.1922*	15.094 *
11	HEXA-CB	1.1379*	15.815 *
12	HEPTA-CB	1.0938*	16.452 *
13	OCTA-CB	1.0538*	17.077 *
14	NONA-CB	1.0182*	17.674 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:07:41 10/06/96
 Desc: Soil- site-19-d Near partially exposed drum

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10880	329	N/A	N/A	

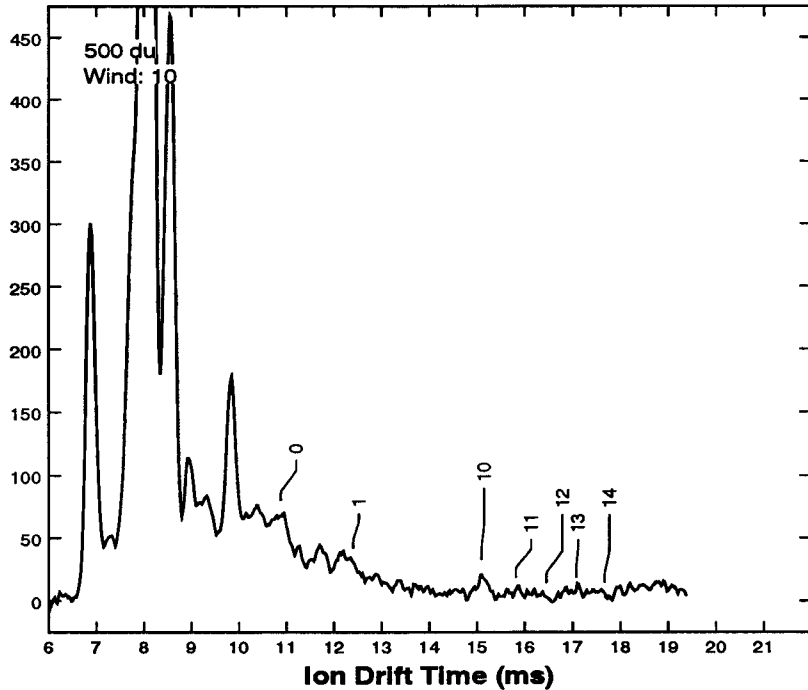
Directory Pathname: a:\
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_9 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 9

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.881
1	TNT	1.4510*	12.403
10	PENTA-CB	1.1922*	15.096 *
11	HEXA-CB	1.1379*	15.816 *
12	HEPTA-CB	1.0938*	16.454 *
13	OCTA-CB	1.0538*	17.078 *
14	NONA-CB	1.0182*	17.675 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:26:33 10/06/96
Desc: Site 33: rust-stained soil, 25 m from tank

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10881	330	N/A	N/A	

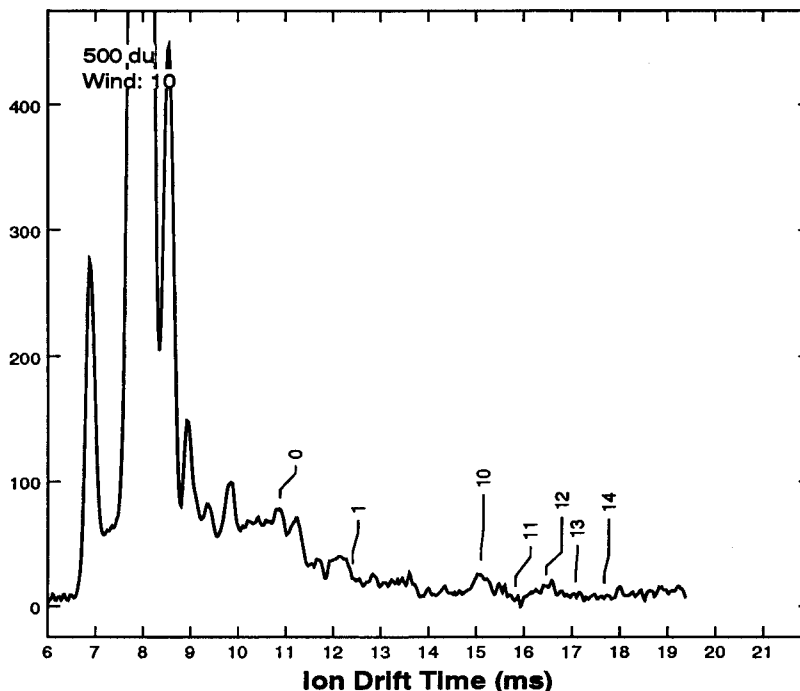
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_10 Cis: yuk WTime: 3.60 - 4.00 s
Sample: Sample 10

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.883
1	TNT	1.4510*	12.406
10	PENTA-CB	1.1922*	15.099
11	HEXA-CB	1.1379*	15.819
12	HEPTA-CB	1.0938*	16.457
13	OCTA-CB	1.0538*	17.081
14	NONA-CB	1.0182*	17.679



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:35:49 10/06/96
Desc: Site 33: discoloured near-surface soil by orange drum dump

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10883	337	N/A	N/A	

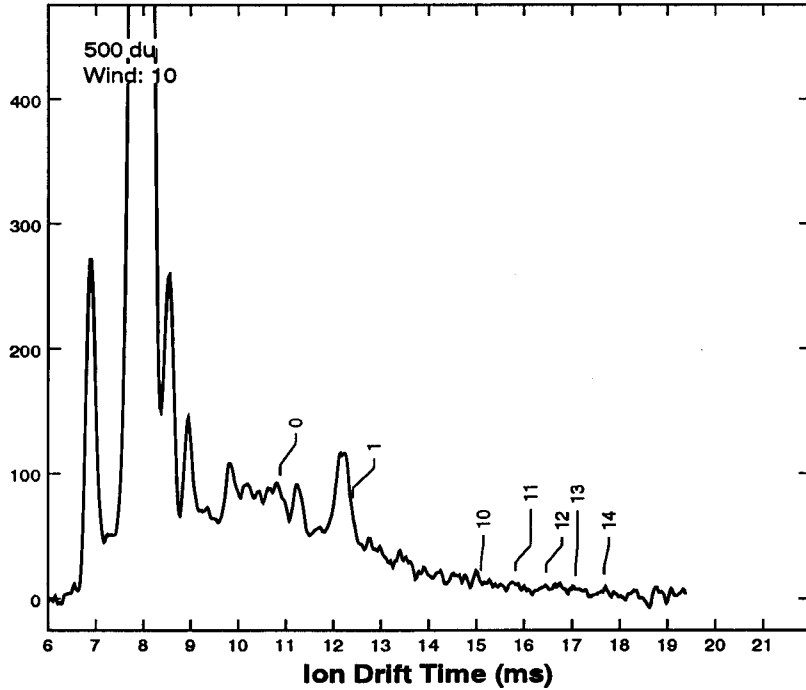
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_11 Cls: yuk WTime: 3.60 - 4.00 s
 Sample: Sample 11

Pk1	PeakID	K _o	DTime	
0*	Cal	1.6540*	10.883	
1	TNT	1.4510*	12.406	
10	PENTA-CB	1.1922*	15.099	*
11	HEXA-CB	1.1379*	15.819	*
12	HEPTA-CB	1.0938*	16.457	*
13	OCTA-CB	1.0538*	17.081	*
14	NONA-CB	1.0182*	17.679	*



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:45:00 10/06/96
 Desc: Site 33: Soil beside excavated orange drum

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10883	336	N/A	N/A	

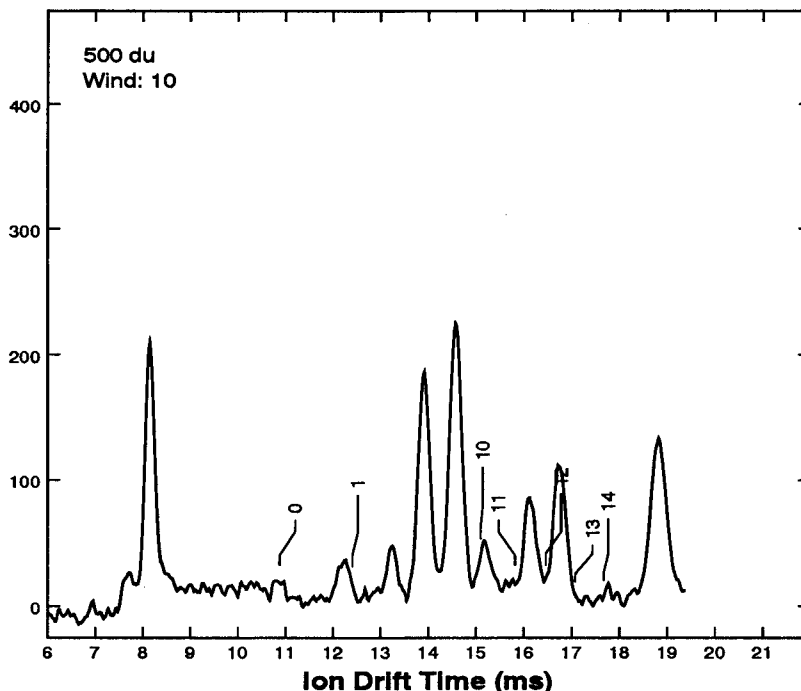
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampleID: Samp_12 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 12

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.884
1	TNT	1.4510*	12.407
10	PENTA-CB	1.1922*	15.100 *
11	HEXA-CB	1.1379*	15.820 *
12	HEPTA-CB	1.0938*	16.458 *
13	OCTA-CB	1.0538*	17.083 *
14	NONA-CB	1.0182*	17.680 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:53:54 10/06/96
Desc: Site 33: oil stained soil near big wheels

RESULTS OF IONSCAN ANALYSIS

*** FAIL ***

No. of IONSCAN windows: 15

PENTA-CB ALARM! Substances found: PENTA-CB

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10884	333	N/A	N/A	
10	PENTA-CB	1.1922	15192	48	+93	11	PENTA-CB

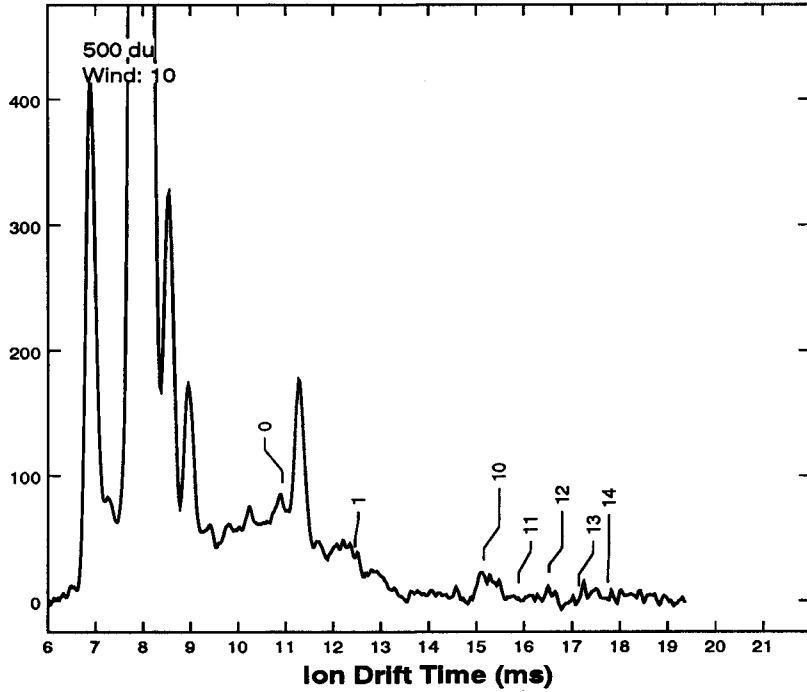
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_13 Cls: yuk WTime: 3.60 - 4.00 s
 Sample: sample 13

PK1	PeakID	K ₀	DTime
0*	Cal	1.6540*	10.926
1	TNT	1.4510*	12.455
10	PENTA-CB	1.1922*	15.158 *
11	HEXA-CB	1.1379*	15.882 *
12	HEPTA-CB	1.0938*	16.522 *
13	OCTA-CB	1.0538*	17.149 *
14	NONA-CB	1.0182*	17.749 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 23:15:19 10/06/96
 Desc: S-6

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K ₀	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10926	391	N/A	N/A	

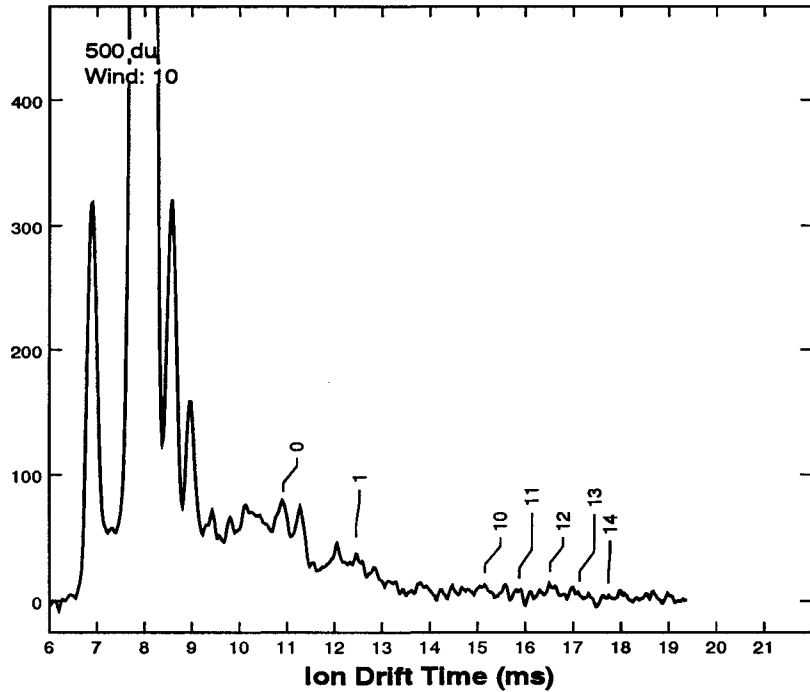
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_14 Cis: yuk WTime: 3.60 - 4.00 s
Sample: sample 14

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.921
1	TNT	1.4510*	12.449
10	PENTA-CB	1.1922*	15.151 *
11	HEXA-CB	1.1379*	15.874 *
12	HEPTA-CB	1.0938*	16.514 *
13	OCTA-CB	1.0538*	17.141 *
14	NONA-CB	1.0182*	17.740 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 23:29:41 10/06/96
Desc: S-10

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10921	370	N/A	N/A	

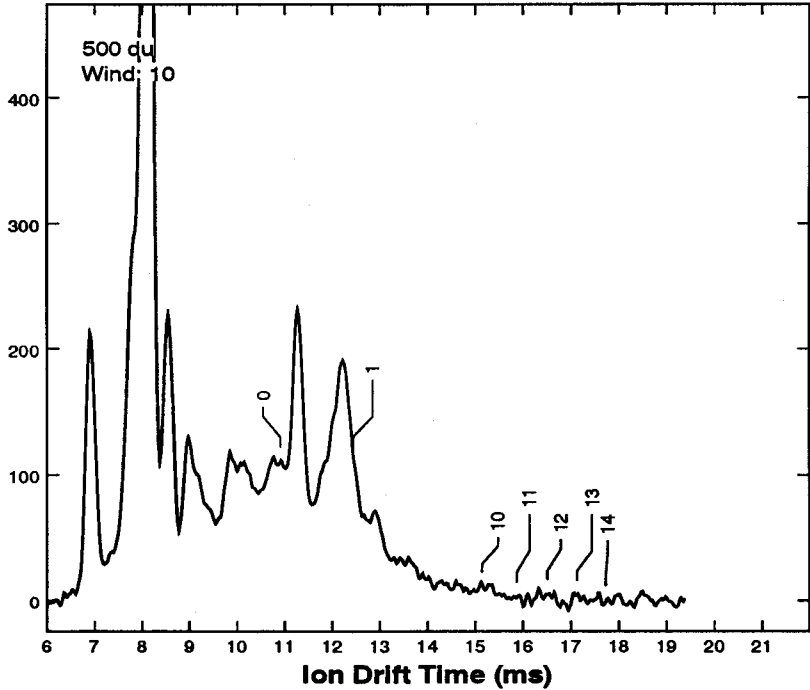
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_15 Cis: yuk WTime: 3.60 - 4.00 s
 Sample: sample 15

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.915
1	TNT	1.4510*	12.442
10	PENTA-CB	1.1922*	15.143 *
11	HEXA-CB	1.1379*	15.866 *
12	HEPTA-CB	1.0938*	16.505 *
13	OCTA-CB	1.0538*	17.132 *
14	NONA-CB	1.0182*	17.731 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 23:55:19 10/06/96
 Desc: S-5

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10915	340	N/A	N/A	

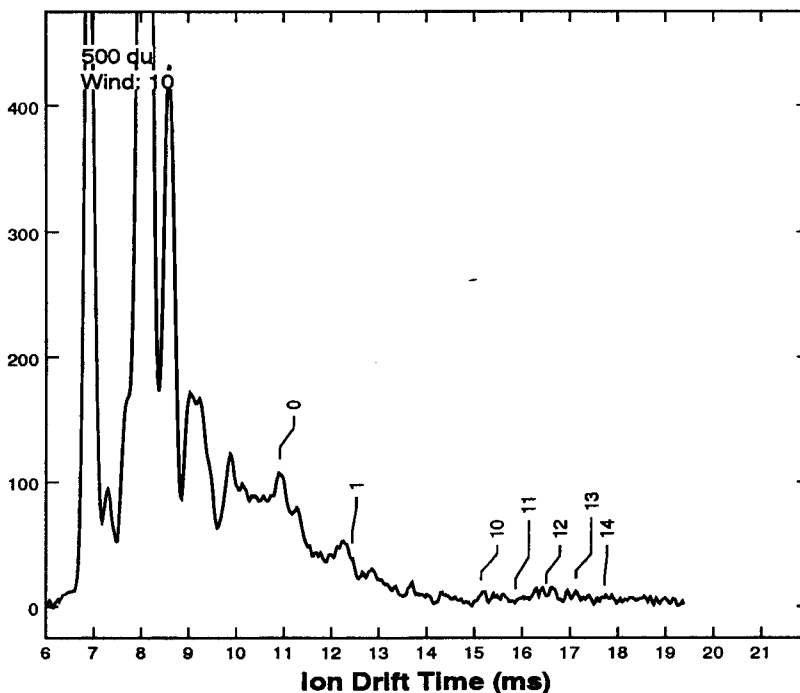
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_16 Cis: yuk WTime: 3.60 - 4.00 s
Sample: sample 16

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.913
1	TNT	1.4510*	12.440
10	PENTA-CB	1.1922*	15.140
11	HEXA-CB	1.1379*	15.863
12	HEPTA-CB	1.0938*	16.502
13	OCTA-CB	1.0538*	17.129
14	NONA-CB	1.0182*	17.727



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 00:09:37 10/07/96
Desc: 20-E-19s

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10913	338	N/A	N/A	

Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:

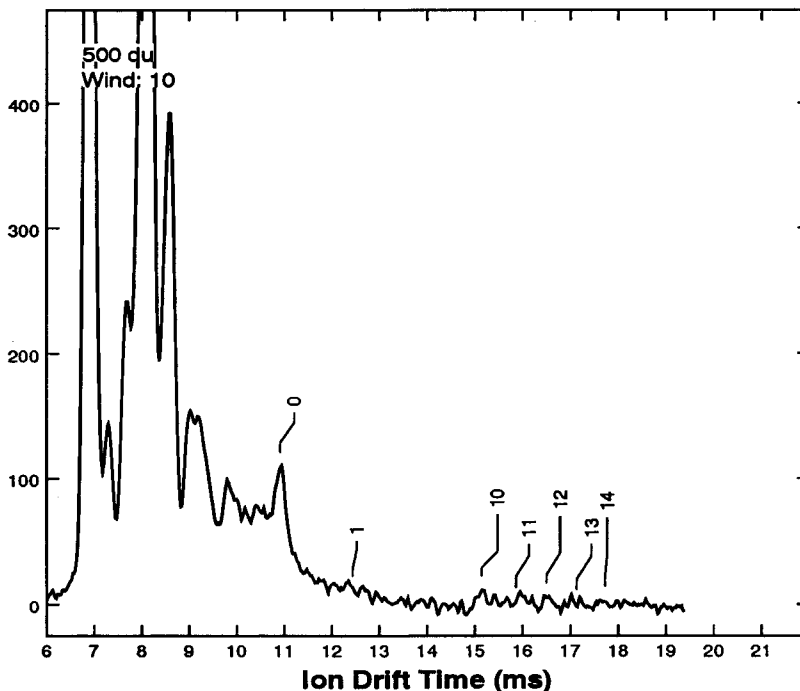


IONSCAN™ Explosives Plasmagram

SampID: Samp_17 Cls: yuk WTime: 3.60 - 4.00 s
Sample: sample 17

PK1 PeakID K_o DTime

0*	Cal	1.6540*	10.914
1	TNT	1.4510*	12.441
10	PENTA-CB	1.1922*	15.142
11	HEXA-CB	1.1379*	15.864
12	HEPTA-CB	1.0938*	16.504
13	OCTA-CB	1.0538*	17.130
14	NONA-CB	1.0182*	17.729



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 00:21:53 10/07/96
Desc: Military dump S-3

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10914	335	N/A	N/A	

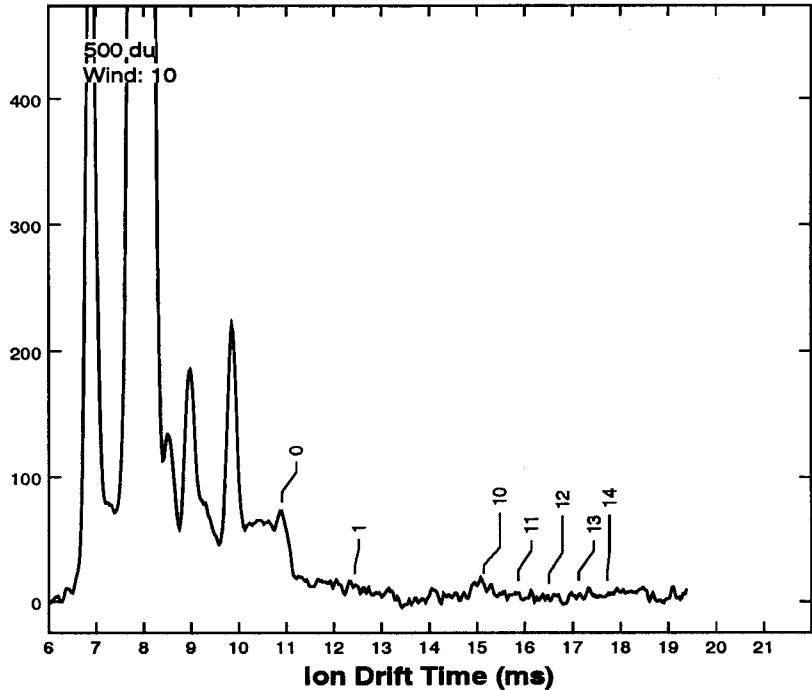
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_18 Cis: yuk WTime: 3.60 - 4.00 s
 Sample: sample 18

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.911
1	TNT	1.4510*	12.437
10	PENTA-CB	1.1922*	15.137 *
11	HEXA-CB	1.1379*	15.860 *
12	HEPTA-CB	1.0938*	16.499 *
13	OCTA-CB	1.0538*	17.125 *
14	NONA-CB	1.0182*	17.724 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 00:38:30 10/07/96
 Desc: S-9

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10911	333	N/A	N/A	

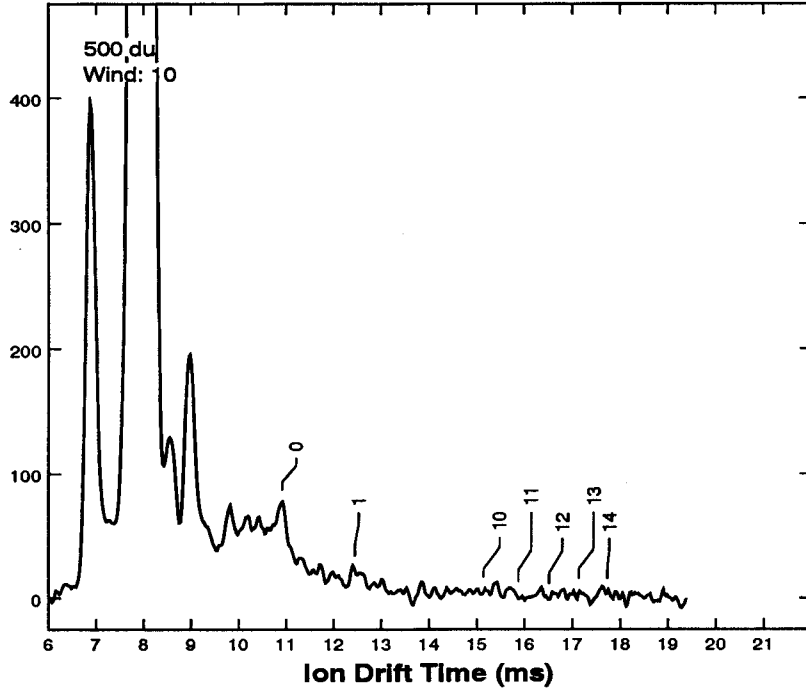
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_19 Cls: yuk WTime: 3.60 - 4.00 s
Sample: sample 19

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.915
1	TNT	1.4510*	12.442
10	PENTA-CB	1.1922*	15.143
11	HEXA-CB	1.1379*	15.866
12	HEPTA-CB	1.0938*	16.505
13	OCTA-CB	1.0538*	17.132
14	NONA-CB	1.0182*	17.731



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 00:56:47 10/07/96
Desc: S-7

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10915	325	N/A	N/A	

Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:

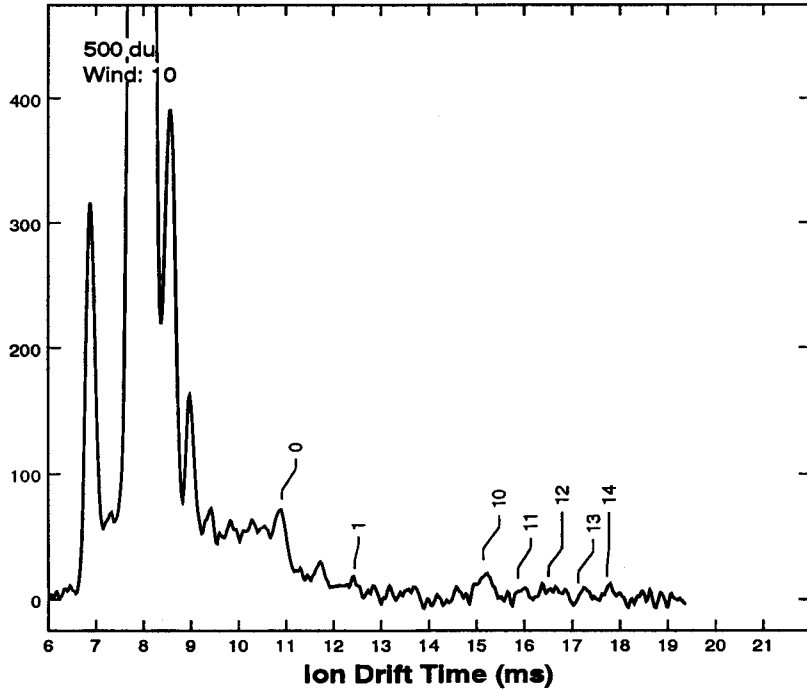


IONSCAN™ Explosives Plasmagram

SampID: Samp_20 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 20

Pk1 PeakID Ko DTime

Pk1	PeakID	Ko	DTime
0*	Cal	1.6540*	10.916
1	TNT	1.4510*	12.443
10	PENTA-CB	1.1922*	15.144
11	HEXA-CB	1.1379*	15.867
12	HEPTA-CB	1.0938*	16.507
13	OCTA-CB	1.0538*	17.133
14	NONA-CB	1.0182*	17.732



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 01:09:04 10/07/96
Desc: 20-E-19SS

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	Ko	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10916	328	N/A	N/A	

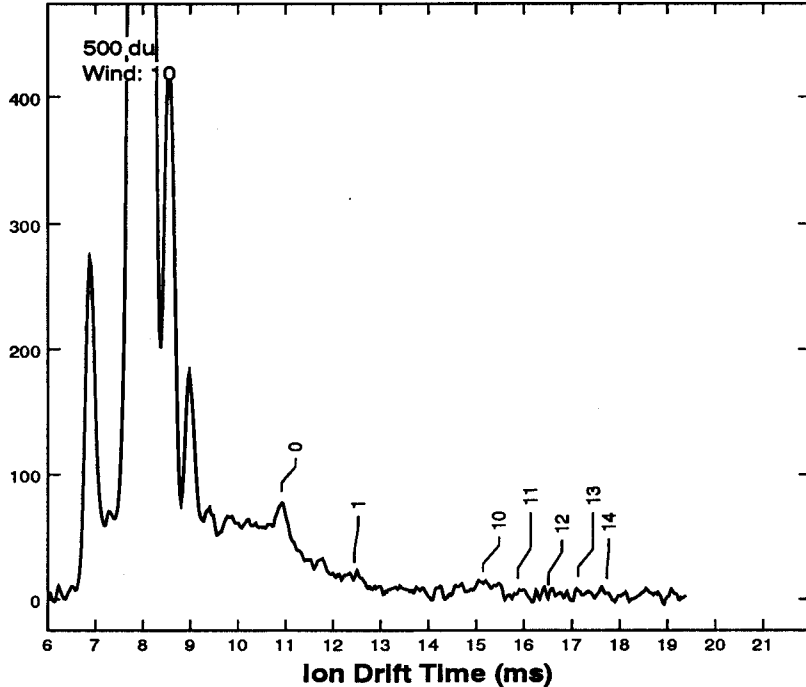
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_21 Cls: yuk WTime: 3.60 - 4.00 s
 Sample: Sample 21

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.917
1	TNT	1.4510*	12.444
10	PENTA-CB	1.1922*	15.146 *
11	HEXA-CB	1.1379*	15.868 *
12	HEPTA-CB	1.0938*	16.508 *
13	OCTA-CB	1.0538*	17.135 *
14	NONA-CB	1.0182*	17.734 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 01:22:51 10/07/96
 Desc: S-11

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10917	322	N/A	N/A	

Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:

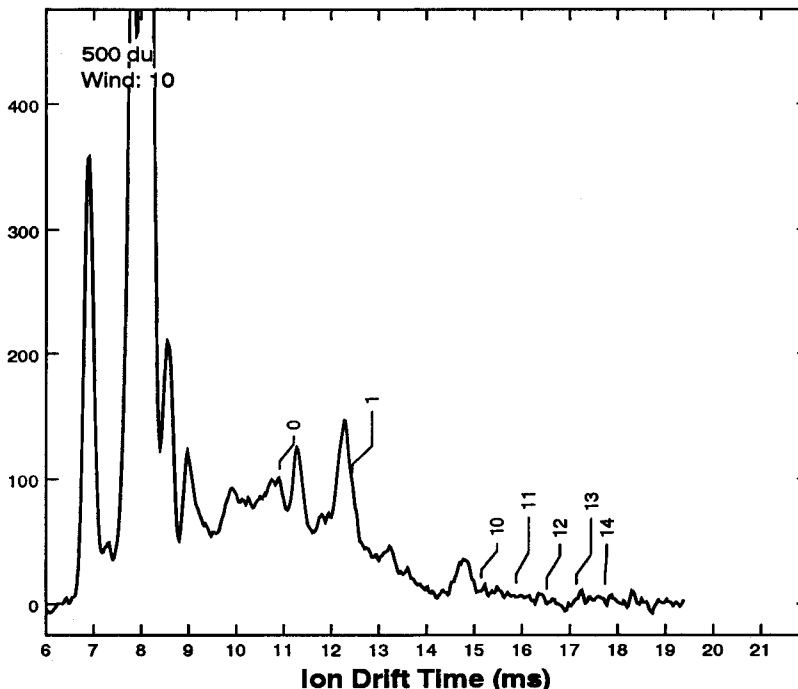


IONSCAN™ Explosives Plasmagram

SampID: Samp_22 Cls: yuk WTime: 3.60 - 4.00 s
 Sample: Sample 22

Pk1 PeakID Ko DTime

Pk1	PeakID	Ko	DTime
0*	Cal	1.6540*	10.920
1	TNT	1.4510*	12.448
10	PENTA-CB	1.1922*	15.150 *
11	HEXA-CB	1.1379*	15.873 *
12	HEPTA-CB	1.0938*	16.513 *
13	OCTA-CB	1.0538*	17.140 *
14	NONA-CB	1.0182*	17.739 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 01:37:45 10/07/96
 Desc: Military Dump S-2

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	Ko	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10920	327	N/A	N/A	

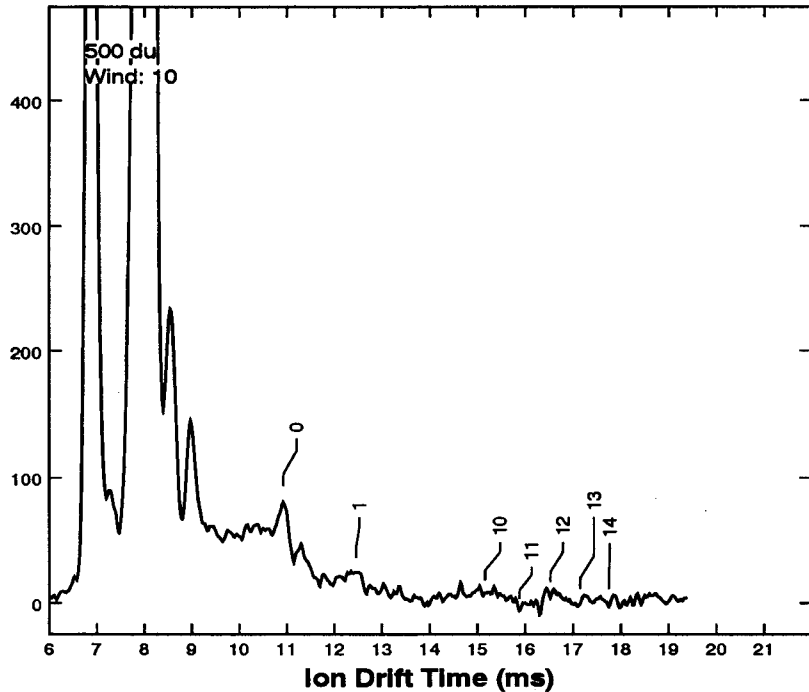
Directory Pathname: a:
 IONSCAN Model No: 250 Serial No: 8307
 Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_23 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 23

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.928
1	TNT	1.4510*	12.457
10	PENTA-CB	1.1922*	15.161
11	HEXA-CB	1.1379*	15.884
12	HEPTA-CB	1.0938*	16.525
13	OCTA-CB	1.0538*	17.152
14	NONA-CB	1.0182*	17.752



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:25:14 10/07/96
Desc: Military Dump S-1

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10928	364	N/A	N/A	

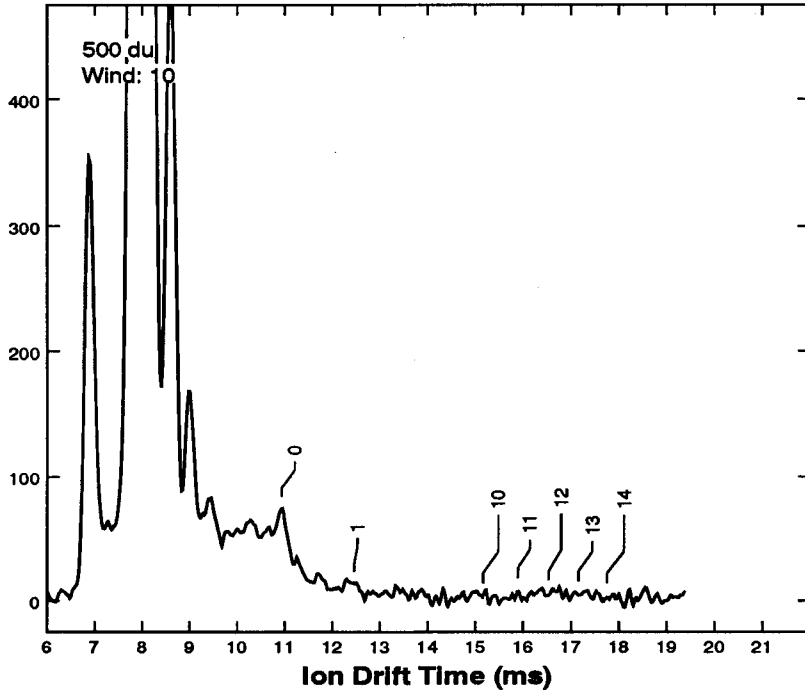
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_24 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 24

PK1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.930
1	TNT	1.4510*	12.459
10	PENTA-CB	1.1922*	15.164 *
11	HEXA-CB	1.1379*	15.887 *
12	HEPTA-CB	1.0938*	16.528 *
13	OCTA-CB	1.0538*	17.155 *
14	NONA-CB	1.0182*	17.755 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:35:42 10/07/96
Desc: 20-E-13S

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10930	358	N/A	N/A	

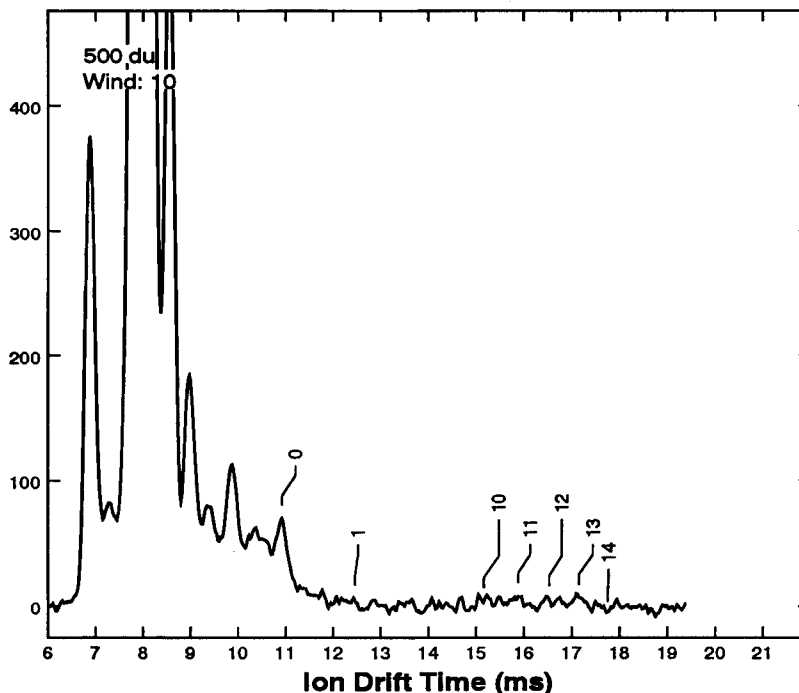
Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:



IONSCAN™ Explosives Plasmagram

SampID: Samp_25 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 25

Pk1	PeakID	K ₀	DTime
0*	Cal	1.6540*	10.929
1	TNT	1.4510*	12.458
10	PENTA-CB	1.1922*	15.162 *
11	HEXA-CB	1.1379*	15.886 *
12	HEPTA-CB	1.0938*	16.526 *
13	OCTA-CB	1.0538*	17.154 *
14	NONA-CB	1.0182*	17.753 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:46:08 10/07/96
Desc: S-4

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K ₀	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10929	364	N/A	N/A	

Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:

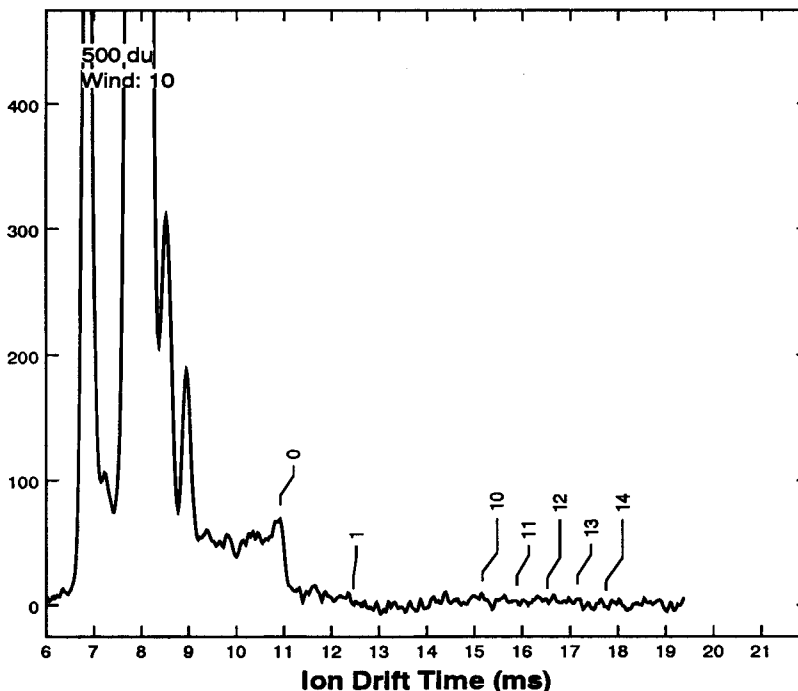


IONSCAN™ Explosives Plasmagram

SampID: Samp_26 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 26

Pk1 PeakID Ko DTime

Pk1	PeakID	Ko	DTime
0*	Cal	1.6540*	10.932
1	TNT	1.4510*	12.461
10	PENTA-CB	1.1922*	15.167
11	HEXA-CB	1.1379*	15.890
12	HEPTA-CB	1.0938*	16.531
13	OCTA-CB	1.0538*	17.158
14	NONA-CB	1.0182*	17.758



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 03:58:59 10/07/96
Desc: S-8

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	Ko	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10932	367	N/A	N/A	

Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:

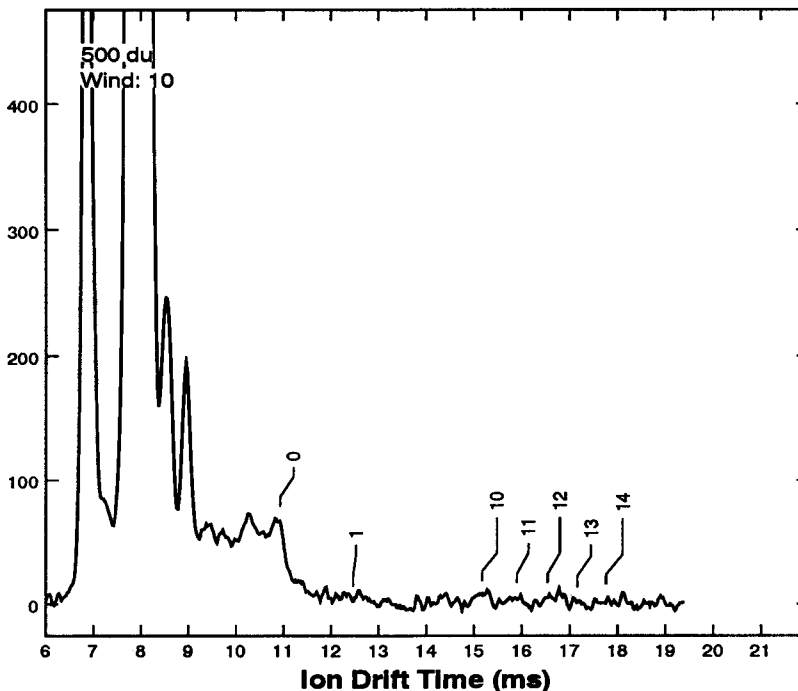


IONSCAN™ Explosives Plasmagram

SampID: Samp_27 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 27

Pk1 PeakID K_o DTime

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.933
1	TNT	1.4510*	12.463
10	PENTA-CB	1.1922*	15.168
11	HEXA-CB	1.1379*	15.892
12	HEPTA-CB	1.0938*	16.532
13	OCTA-CB	1.0538*	17.160
14	NONA-CB	1.0182*	17.760



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:16:34 10/07/96
Desc: 20-E-13SS

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10933	364	N/A	N/A	

Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:

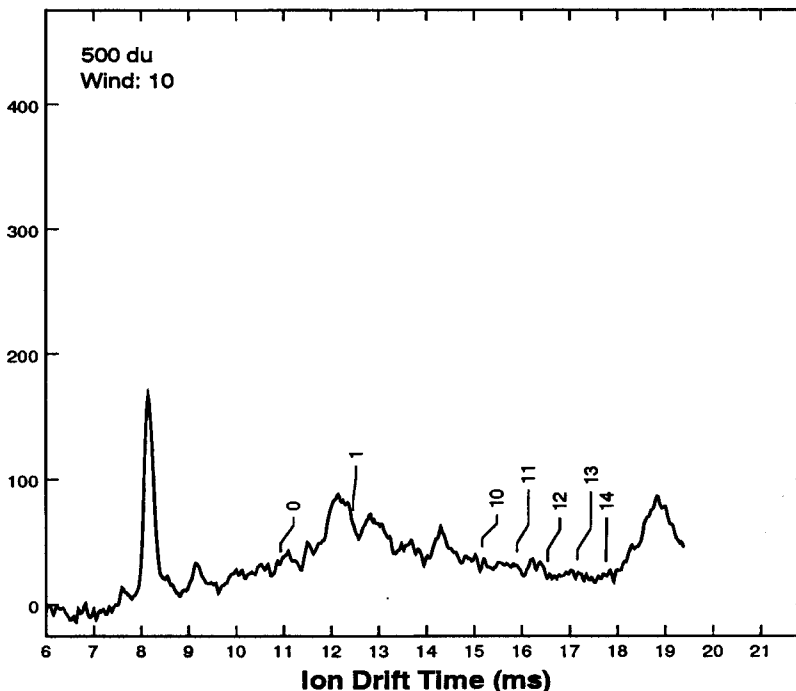


IONSCAN™ Explosives Plasmagram

SampID: Samp_28 Cls: yuk WTime: 3.60 - 4.00 s
Sample: Sample 28

Pk1 PeakID K_o DTime

Pk1	PeakID	K _o	DTime
0*	Cal	1.6540*	10.934
1	TNT	1.4510*	12.464
10	PENTA-CB	1.1922*	15.169 *
11	HEXA-CB	1.1379*	15.893 *
12	HEPTA-CB	1.0938*	16.534 *
13	OCTA-CB	1.0538*	17.162 *
14	NONA-CB	1.0182*	17.762 *



Wnds: 15 Scans: 20 Pts: 776 Per: 25µs T: 20ms Alg: 1 Time: 04:31:34 10/07/96
Desc: Site 35: Surface soil, Front right corner (old log cabin)

RESULTS OF IONSCAN ANALYSIS

*** PASS ***

No. of IONSCAN windows: 15

Chn	ChanID	K _o	DTime (µs)	Max Amp	Delta (µs)	# of Hits	Detected Substances (Partly) Dependent upon this Channel
0	Cal	1.6540	10934	365	N/A	N/A	

Directory Pathname: a:
IONSCAN Model No: 250 Serial No: 8307
Comments:

APPENDIX No. 9
SUMMARY - Analytical Results
Soil and Water Samples

Laboratory analyses - Yukon site assessments - Soil Samples
(concentrations mg/Kg or ppm)

Compound	Sample number as per Table 4.??						Ontario
	Sample 1 (S42-SS34)	Sample 6 (S42-SS35)	Sample 12 (S42-SS33)	Sample 15 (S20-DUMP)	sample 22 (S20-DUMP)	sample 28 (S42-S35)	Surface Soil Criteria (parkland/ groundwater)
Aldrin	na	na	<0.001	<0.001	<0.001	<0.20	0.05
alpha-HCH	na	na	<0.002	<0.002	<0.002	<0.20	
beta-HCH	na	na	<0.001	<0.001	<0.001	<0.20	
gamma-HCH	na	na	<0.002	<0.002	<0.002	<0.40	
delta-HCH	na	na	<0.001	<0.001	<0.001	<0.20	
alpha-Chlordane	na	na	<0.001	<0.001	<0.001	<0.20	sum 0.29
gamma-Chlordane	na	na	<0.001	<0.001	<0.001	<0.20	
p,p'-DDD	na	na	<0.002	<0.002	<0.002	<0.40	2.2
p,p'-DDE	na	na	<0.002	<0.002	<0.002	<0.40	1.6
p,p'-DDT	na	na	<0.002	<0.002	<0.002	<0.40	1.6
Dieldrin	na	na	<0.004	<0.004	<0.004	<0.80	0.05
alpha-Endosulfan	na	na	<0.002	<0.002	<0.002	<0.40	sum 0.18
beta-Endosulfan	na	na	<0.002	<0.002	<0.002	<0.40	
Endosulfan sulfate	na	na	<0.002	<0.002	<0.002	<0.40	
Endrin	na	na	<0.003	<0.003	<0.003	<0.60	0.05
Endrin Aldehyde	na	na	<0.008	<0.008	<0.008	<1.6	
Heptachlor	na	na	<0.001	<0.001	<0.001	<0.20	0.12
Heptachlor epoxide	na	na	<0.002	<0.002	<0.002	<0.40	0.06
Methoxychlor	na	na	<0.009	<0.009	<0.009	<1.8	4
Mirex	na	na	<0.003	<0.003	<0.003	<0.60	
Toxaphene	na	na	<1.9	<1.9	<1.9	<380	
PCB (total)	na	na	<0.05	<0.05	<0.05	<10	40
Surrogate recoveries							
2,4,5,6-Tetrachloro-m-xylene (%)			108	102	122	na	
Hydrocarbons							
Naphthalene	<0.15	<0.75	<0.15	<0.03	<0.03	<0.30	4.6
2-Methylnaphthalene	<1.0	<5.0	<1.0	<0.20	<0.20	<2.0	0.29
1-Methylnaphthalene	<1.0	55	<1.0	<0.20	<0.20	<2.0	
Acenaphthylene	<0.20	<2.9	<0.20	<0.04	<0.04	<0.40	100
Acenaphthene	<0.35	1.8	<0.35	<0.07	<0.07	<0.70	15
Fluorene	<0.15	23	<0.15	<0.03	<0.03	<0.30	340
Phenanthrene	<0.15	47	<0.15	<0.03	<0.03	<0.30	40
Anthracene	<0.15	<0.75	<0.15	<0.03	<0.03	<0.30	28
Fluoranthene	<0.10	<0.50	<0.10	<0.02	<0.02	<0.20	40
Pyrene	<0.15	0.96	<0.15	<0.03	<0.03	<0.30	3.5
Benzo(a)anthracene	<0.10	<0.50	<0.10	<0.02	<0.02	<0.20	6.6
Chrysene	<0.15	<0.75	<0.15	<0.03	<0.03	<0.30	6.6
Benzo(b)fluoranthene	<0.20	<1.0	<0.20	<0.04	<0.04	<0.40	12
Benzo(k) fluoranthene	<0.20	<1.0	<0.20	<0.04	<0.04	<0.40	12
Benzo(a)pyrene	<0.25	<1.3	<0.25	<0.05	<0.05	<0.50	1.2
Indeno(1,2,3-cd)pyrene	<0.30	<1.5	<0.30	<0.06	<0.06	<0.60	12
Dibenzo(ah)anthracene	<0.20	<1.0	<0.20	<0.04	<0.04	<0.40	1.2
Benzo(ghi)perylene	<0.20	<1.0	<0.20	<0.04	<0.04	<0.40	35
Surrogate recoveries							
d5-Nitrobenzene	87		71	23	46	85	
2-Fluorobiphenyl	98		86	27	58	143	
d14-p-Terphenyl	82	103	107	87	81		

* method detection limit raised due to sample dilution - sample extract too dirty to run more dilute

